

Eccoptocarpa obconiciventr Launert. *Senck. Biol.* 46: 126 (1965).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Zambia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Zambia: prope Kasamam, habitat in graminosis, agris indultis. saepe ad vias, *Phipps & Vesey-FitzGerald 2980* (HT: BM; IT: K, SRGH).

Illustrations (Books): R.M.Phill, F.T.E.A., *Gramineae* (3:576, Fig.138), G.V.Pope et al., *Flora Zambesiaca* 10 (3(1989):80, t. 19).

Derivation (Clifford & Bostock 2007): *L. obconicus*, conical with apex downwards; venter, belly. Upper glume broadly elliptical to obovate-elliptical.

Classification (Clifford & Bostock 2007): Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual, caespitose. Culms geniculately ascending, 40–75 cm long. Ligule a fringe of hairs. Leaf-blades 2–10 cm long, 3–9 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 2–7, borne along a central axis, unilateral, 1–5 cm long. Central inflorescence axis 4–7 cm long. Rhachis semiterete, setose on margins. Spikelet packing adaxial, regular, 1 -rowed. Spikelets pectinate, solitary. Fertile spikelets pedicelled. Pedicels present, oblong, setose.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets obovate, dorsally compressed, obtuse, 3.2–3.8 mm long, falling entire. Rhachilla internodes elongated below proximal fertile floret. Rhachilla elongation sinuous but straightening at maturity to extrude floret.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume elliptic, 0.7–0.8 length of spikelet, membranous, without keels, 5 -veined. Lower glume surface pubescent. Lower glume apex obtuse or acute. Upper glume elliptic, chartaceous, without keels, 5 -veined. Upper glume lateral veins with cross-veins. Upper glume apex obtuse.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret elliptic, 1 length of spikelet, 5 -veined, with cross-veins, obtuse. Fertile lemma oblong, 2 mm long, indurate, shiny, without keel, more than 3-veined. Lemma margins involute. Lemma apex obtuse. Palea involute, indurate.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa, South tropical Africa. Tanzania. Zambia.

Echinaria capitata (L.) Desf. *Fl. Atlant.* 2: 385 (1799).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983).

Basionym or Replaced Name: *Cenchrus capitatus* L., *Sp. Pl.* 2: 1049 (1753)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: LT: (LINN-1217.6). LT designated by Sherif & Siddiqi, *Fl. Libya* 145: 58 (1988).

ST: *van Royen s.n.*, Unknown (L).

Illustrations (Books): N.Feinbrun-Dothan, *Flora Palaestina* 4 (1986) (Pl. 338), N.L.Bor, *Gramineae* in K.H.Rechinger, *Flora Iranica*. No. 70/30 (1970) (Tab. 8), N.L.Bor, *Gramineae* in *Flora of Iraq* (1968) (79, Pl. 27).

Derivation (Clifford & Bostock 2007): *L. caput*, head; -ata, possessing. Inflorescence condensed to a sphere-like structure.

Classification. Subfamily Pooideae. Tribe: Poeae.

Habit, Vegetative Morphology. Annual, caespitose. Culms 4–30 cm long. Culm-internodes smooth. Leaf-sheaths tubular for much of their length, scaberulous. Ligule an eciliate membrane, lacerate. Leaf-blades flat or convolute, 4–7.5 cm long, 2 mm wide. Leaf-blade surface scabrous.

Inflorescence. Inflorescence a panicle. Panicle capitate, ovate or globose, 0.8–1.5 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong, scabrous.

Fertile Spikelets. Spikelets comprising 2–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–7 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma. Lower glume elliptic, 2.5–3 mm long, 1 length of upper glume, membranous, 2-keeled, 2 -veined. Lower glume surface

scabrous. Lower glume apex obtuse, mucronate, 2 -awned. Upper glume elliptic, 2.5–3 mm long, 1–1.1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume surface scabrous. Upper glume apex emarginate, mucronate, 1 -awned.

Florets. Fertile lemma oblong, 2–2.5 mm long, coriaceous, without keel, 5–7 -veined, more than 3-veined. Lemma surface scabrous. Lemma apex dentate, 5–7 -fid, awned, 5–7 -awned. Principal lemma awn curved, reflexed, flat below, pungent, 3–6 mm long overall. Lateral lemma awns present, arising on apex of lobes, spreading as much as principal, shorter than principal. Palea 1 length of lemma, 2 -veined. Palea keels scabrous. Palea apex awned, awns 4–5 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2. Anthers 3, 1–1.2 mm long. Ovary pubescent on apex. Caryopsis with adherent pericarp, obovoid, laterally compressed, 2 mm long, hairy at apex. Embryo 0.33 length of caryopsis. Hilum punctiform.

$N = 9$ (3 refs TROPICOS). $2n = 14$ (1 ref TROPICOS), or 18 (2 refs TROPICOS).

Distribution (TDWG). Continent. Europe, Africa, Temperate Asia.

Region. Northern Europe (*), Southwestern Europe, Southeastern Europe, Eastern Europe.

Country /Province /State. : GB Aliens (Ryves et al). : Corsica, France, Portugal, Sardinia, Spain. : Albania, Bulgaria, Greece, Italy, Crete, Sicily, Turkey Europe, Yugoslavia. Krym. **Northern Africa.** Algeria, Libya, Morocco, Tunisia. **Middle Asia, Caucasus, and Western Asia.** Turkmenistan, Tadjikistan. Iran, Iraq.

TDWG4.

Echinochloa brevipedicellata (Peter) W.D. Clayton. *Kew Bull.* 32(3): 580 (1978).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online.

TYPE from Tanzania. **Basionym or Replaced Name:** *Panicum brevipedicellatum* Peter, *Repert. Spec. Nov. Regni Veg. Beih.* 40(1): 180, 182, Anhang 33, t. 23, f. 1 (1930)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Peter 34475*, Tanzania: Malongwe (B (destroyed)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. brevis*, short; pedicellus, stalk; -atum, possessing. Primary branches of inflorescence short.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 30–200 cm long. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs. Leaf-blades 10–30 cm long, 4–10 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, closely spaced (inflorescence lanceolate), unilateral, 1–4 cm long, simple. Central inflorescence axis 8–25 cm long. Rhachis angular. Spikelet packing crowded, regular, 4 -rowed. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, gibbous, acute, 1.5–2.5(–3) mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 0.3–0.4 length of spikelet, membranous, purple, without keels, 3–5 -veined. Lower glume surface pubescent or hispid. Lower glume apex acute. Upper glume ovate, membranous, purple, without keels, 5 -veined. Upper glume surface pubescent or hispidulous. Upper glume apex acute.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 5 -veined, pubescent or hispidulous, acute. Fertile lemma ovate, gibbous, 1.5–2.5 mm long, indurate, much thinner above, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex acute, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa. Tanzania.

Echinochloa callopus (Pilger) W.D. Clayton. *Kew Bull.* 34(3): 560 (1980).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, U. Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Sudan. **Basionym or Replaced Name:** *Panicum callopus* Pilg., *Bot. Jahrb. Syst.* 33(1): 46–47 (1902)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Schweinfurth 2151*, Jul 1869, Sudan: Ghasal-Quellengebiet, im Lande der Bongo (B; IT: K, P).

Recent Synonyms: *Brachiaria callopus* (Pilger) Stapf, Prain, *Fl. Trop. Afr.* 9: 533 (1919).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. kallion, more beautiful; pous, foot. Glumes adnate to the internode forming an often brightly colored subglobose stipe.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual, caespitose. Culms 20–120 cm long. Ligule a fringe of hairs. Leaf-blades conduplicate, 5–30 cm long, 4–10 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, spreading or appressed, unilateral, 1–6 cm long, simple. Central inflorescence axis 2–20 cm long. Rhachis angular. Spikelet packing adaxial, regular, 2 -rowed. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic or ovate, dorsally compressed, gibbous, acute, 3.3–4.6 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, 0.3–0.6 mm long.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 0.3–0.4 length of spikelet, membranous, without keels, 3–5 -veined. Lower glume surface scabrous or spinose. Lower glume apex obtuse. Upper glume ovate, membranous, without keels, 7 -veined. Upper glume surface scabrous or spinose. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 7 -veined, scabrous, acute. Fertile lemma ovate, gibbous, 3–4 mm long, indurate, much thinner above, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex rostrate, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa. Burkina, Ivory Coast, Mali, Nigeria, Senegal, Sierre Leone. DRC. Sudan. Tanzania.

Echinochloa caudata Roshev. *Acta Inst. Bot. Acad. Sc. URSS, Ser. I. Fasc. 2, 91 (1934).*

Regarded by K as a synonym (*E. crusgalli*).

Accepted by: S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from Siberia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Siberia, Dahuria: *Ovczinnikov* .

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 725).

Derivation (Clifford & Bostock 2007): *L. cauda*, tail; -ata, possessing.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Flower and Fruit. $2n = 54$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Russian far east, **China, Mongolia, Eastern Asia, Russia.** China South Central, Inner Mongolia, Manchuria, China North-Central, China Southeast, Xinjiang. Mongolia. Japan, Korea.

TDWG4. Hebei, Shanxi. Anhui, Henan, Hunan, Jiangsu, Jiangxi, Zhejiang. Guizhou, Sichuan, Yunnan.

Echinochloa chacoensis Michael ex S.A. Renvoize. *Kurtziana* 24: 161 (1995).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Bolivia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Renvoize & Cope 3906*, 12 Mar 1981, Bolivia; Santa Cruz: Cordillera Abapo-Izazog Research Station, 400 m, Chaco - dense bush, growing in swampy ground (K; IT: LPB, US-3104190).

Illustrations (Books): S.A.Renvoize, *Gramineas de Bolivia* (1998) (426, Fig 91).

Derivation (Clifford & Bostock 2007): *L. -ensis*, denoting origin. From Chaco Province, Argentina.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual or perennial, short-lived. Culms erect or geniculately ascending, robust, 40–140 cm long, without nodal roots or rooting from lower nodes. Leaves cauline. Leaf-sheaths loose or inflated, glabrous on surface. Ligule a fringe of hairs, 1.5–3.5 mm long. Leaf-blade base simple or broadly rounded or cordate. Leaf-blades 15–30 cm long, 5–20 mm wide. Leaf-blade surface pilose, sparsely hairy. Leaf-blade margins scabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 5–13, borne along a central axis, unilateral, 2–5 cm long, simple. Central inflorescence axis 5–20 cm long. Rhachis narrowly winged, angular, 0.5–0.7 mm wide, scabrous on margins. Spikelet packing irregular, 4 -rowed. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate, dorsally compressed, gibbous, cuspidate, 3.5–5 mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, clasping, 0.3–0.4 length of spikelet, membranous, without keels, 5 -veined. Lower glume apex acute. Upper glume ovate, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface hispidulous. Upper glume apex acuminate.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 3–5 -veined, hispidulous, acuminate. Fertile lemma orbicular, gibbous, 3–4.5 mm long, indurate, much thinner above, shiny, without keel. Lemma surface smooth or striate. Lemma margins involute. Lemma apex apiculate. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Southern South America. Bolivia. Argentina Northwest.

TDWG4. Jujuy. Santa Fe.

Echinochloa colona (L.) Link. *Hort. Berol.* 2: 209 (1833).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*), N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960), T.Koyama, *Grasses of Japan and its neighboring regions* (1987) (as *E. colonum*), W.D.Clayton & N.Snow, Key to Pacific Grasses (2010).

TYPE from Jamaica. **Basionym or Replaced Name:** *Panicum colonum* L., *Syst. Nat. (ed. 10)* 2: 870 (1759). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: P. Browne s.n., Jamaica (LINN-80.23). LT designated by Clayton & Renvoize, *Fl. Trop. East Afr., Gramineae* (part 3): ? (1982); the typification by Hitchcock, *Contr. U.S. Natl. Herb.* 12: 119 (1908) was not effective.

Illustrations (Books): F.N.Hepper, *F.W.T.A.* 3(2) (1972) (438, Fig.441), R.M.Phillip, F.T.E.A., *Gramineae* (3(1982):558, Fig.134), G.V.Pope et al., *Flora Zambesiaca* 10, J.Bosser, *Gramineae des Paturage et des Cultures a Madagascar* (1969) (359, Fig. 135), N.Feinbrun-Dothan, *Flora Palaestina* 4 (1986) (Pl. 404 as *E. colonum*), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (214, Fig. 88), L.Boulos, *Flora of Egypt* 4 (2005) (293, Pl. 86), T.A.Cope, in M.Thulin, *Poaceae* (Gramineae). *Flora of Somalia* (1995) (223, Fig. 127), N.L.Bor, *Gramineae in Flora of Iraq* (1968) (481, Pl. 184), N.L.Bor, *Gramineae* in K.H.Rechinger, *Flora Iranica*. No. 70/30 (1970), T.Koyama, *Grasses of Japan and its neighbouring regions* (1987) (350, Fig. 136 as *E. colonum*), C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (528 as *E. colonum*), C-C Hsu, *Taiwan Grasses* (1975) (as *E. colonum*), N.L.Bor, *The grasses of Burma, Ceylon, India and Pakistan* (1960) (309, Fig. 34), K.M.Mathew, Further Illustrations on the *Flora of Tamilnadu Carnatic* (1988) (Pl. 763), H.J.Noltie, *The Grasses of Bhutan* (2000) (699, Fig. 39), H.B.Gilliland, *Grasses of Malaya* (1971) (Pl. 10), H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005) (63, Fig. 53), E.E.Henty, *A Manual of the Grasses of New Guinea* (1969) (75, Pl. 27), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (445, Fig. 376), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (255, Pl. 75 as *E. colonum*), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler, *Grasses of New South Wales*, 4th edn (2008) (226), J.C.Tothill, & J.B.Hacker. *The grasses of southern Queensland* (1983) (204 as *E. colonum*), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (205, Fig. 32), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), W.L.Wagner et al., *Manual of the Flowering Plants of Hawai'i*, Vol. 2 (1990) (1533, Pl. 226), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (401), F.W.Gould, *The Grasses of Texas* (1975) (540, Fig. 282), S.A.Renvoize, *Gramineae de Bolivia* (1998) (426, Fig. 91), A.S.Hitchcock, *Manual of the Grasses of the West Indies* (1936) (327, Fig. 299 as *E. colonum*), S.A.Renvoize, *The Grasses of Bahia*, 1984 (188, Fig. 71 as *E. colonum*), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineae* (1981–1982) (860, Fig. 176 & 864, Fig. 178), A.Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, Gramineae (1969) (344, Fig. 142), W.Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (196, Fig. 64 as *E. colonum*), A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineae* (1970) (511, Fig. 133 as *E. colonum*),

M.N.Correa, *Flora Patagonica* Parte III, Gramineae (1978) (522, Fig. 352 as *E. colonum*), F.O.Zuloaga et al, *Flora del Paraguay* 23 (1994) (142, Fig. 41), B.Rosengurt, *Gramineas Uruguayas I* (1970) (314, Fig. 133), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 726), E.Hafliger & E.Schultz, *Grass Weeds*, CIBA-GEIGY (1:54(1980) as *E. colonum*).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, L.Boulos, *Flora of Egypt* 4 (2005);, H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005);, H.B.Gilliland et al., *Flora of Malaya Vol. 3 Grasses* (1971);, F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): *L. colonist*. Planted as a cereal.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual, caespitose. Culms geniculately ascending or decumbent, 10–100 cm long. Leaf-sheaths glabrous on surface. Ligule absent. Leaf-blades 5–30 cm long, 2–8 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, ascending (rarely) or appressed, unilateral, 0.5–3 cm long, simple. Central inflorescence axis 1–15 cm long. Rhachis angular. Spikelet packing crowded, regular, 4 -rowed. Spikelets in pairs or clustered at each node. Fertile spikelets sessile, 2–4 in the cluster, subequal.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate or orbicular, dorsally compressed, gibbous, acute or cuspidate, 1.5–3 mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 0.3–0.4 length of spikelet, without keels, 3–5 -veined. Lower glume surface scabrous. Lower glume apex cuspidate. Upper glume ovate, membranous, without keels, 5 -veined. Upper glume surface pubescent. Upper glume apex cuspidate.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 5 -veined, pubescent, acute or cuspidate. Fertile lemma ovate, gibbous, 2–3 mm long, indurate, much thinner above, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex acute, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3.

$N = 27$ (4 refs TROPICOS). $2n = 36$ (2 refs TROPICOS).

Distribution (TDWG). Continent. Europe, Africa, Temperate Asia, Tropical Asia, Australasia (*), Pacific, North America, South America.

Region. Northern Europe (*), Southwestern Europe, Southeastern Europe.

Country /Province /State. : Great Britain (*). : Baleares, France, Portugal, Spain. : Italy, Crete. **Northern Africa, Macaronesia, West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Middle Atlantic ocean, Western Indian ocean.** Algeria, Egypt, Libya, Morocco, Tunisia. Canary Is, Cape Verde, Madeira. Burkina, Gambia, Ghana, Ivory Coast, Mali, Mauritania, Nigeria, Senegal, Sierre Leone, Niger, Rwanda. Eritrea, Ethiopia (inc. Eritrea), Socotra, Somalia, Sudan. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Lesotho, Northern Cape, Eastern Cape. St Helena. Mauritius, Madagascar, Rodrigues, Seychelles. **Western Asia, Arabian Peninsula, China, Eastern Asia.** Gulf States, Kuwait, Oman. China South Central, Hainan, China North-Central, China Southeast, Tibet, Xinjiang. Nansei-Shoto, Ogosawara-shoto, Taiwan. **Indian Subcontinent, Indo-China, Malesia, Papuasias.** Assam, Bangladesh, Eastern Himalaya, India, Pakistan, Sri Lanka, West Himalaya. Andaman Is, Laos, Myanmar, Thailand, Vietnam. Borneo, Java, Lesser Sunda Is, Malaya, Singapore, Moluccas, Philippines, Sulawesi, Sumatra, Christmas I. New Guinea, Solomon Is. **Australia.** Western Australia (*), Northern Territory (*), South Australia (*), Queensland (*), New South Wales (*), Victoria (*). **Southwestern Pacific, South-central Pacific, Northwestern Pacific, North-central Pacific.** Fiji (*), Niue (*), New Caledonia (*), Santa Cruz Is (*), Tonga (*), Wallis-Futuna Is (*). Cook Is (*), Marquesas, Society Is. Marianas. Hawaii (*). **Northwest USA, Southwestern USA, Southeastern USA, Mexico.** Colorado. Arizona, California, Nevada. Alabama, Arkansas, Delaware, Florida, Georgia, Louisiana, Mississippi, South Carolina, Tennessee, Virginia. Central Mexico, Northeast Mexico, Gulf (Mexico), Pacific Is (Mexico), Northwest Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica, Caribbean, Northern South America, Western South America, Brazil, Southern South America.** Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama. Bahamas, Bermuda, Cayman Is (as *E. colonum*), Cuba, Dominican Republic, Haiti, Jamaica (as *E. colonum*), Leeward Is, Windward Islands (& as *E. colonum*), Puerto Rico, Trinidad-Tobago. French Guiana, Guyana, Surinam, Venezuela. Bolivia, Colombia, Ecuador, Galapagos, Peru. Brazil West Central, Brazil Northeast, Brazil North, Brazil Southeast, Brazil South. Argentina Northeast, Argentina Northwest, Chile Central, Juan Fernandez Is, Paraguay, Uruguay.

TDWG4. Hebei, Shaanxi. Anhui, Fujian, Guangdong, Guangxi, Henan, Hunan, Jiangsu, Jiangxi, Zhejiang. Guizhou, Hubei, Sichuan, Yunnan. Darjeeling, Bhutan. Kimberley, Ereman. Darwin & Gulf, Victoria R &

Barkly Tableland, Central Australia. Southern. North, Central, South East, Inland. Coast, Tablelands, Western Slopes, Western Plains. Catamarca, Jujuy, La Rioja, Mendoza, Salta, Santiago del Estero, San Luis, Tucuman. Buenos Aires, Chaco, Cordoba, Corrientes, Distrito Federal, Entre Rios, Formosa, La Pampa, Misiones, Santa Fe. Río Negro. Coquimbo, Valparaiso, Maule, Biobio, La Araucania. Distrito Federal, Mexico State, Morelos, Puebla. Aguascalientes, Coahuila, Chihuahua, Durango, Guanajuato, Hidalgo, Neuvo Leon, Queretaro, San Luis Potosi, Tamaulipas, Zacatecas. Veracruz. Guadalupe Is, Roscas Alijos, Revillagigedo Is. Baja California, Baja California Sur, Sinaloa, Sonora. Colima, Guerrero, Jalisco, Michoacan, Nayarit, Oaxaca. Campeche, Chiapas, Quintana Roo, Tabasco, Yucatan.

Echinochloa crusgalli (L.) Beauv. *Agrost.* 53 (1812).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*), N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983), T.Koyama, *Grasses of Japan and its neighboring regions* (1987), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Europe. **Basionym or Replaced Name:** *Panicum crus-galli* L., *Sp. Pl.* 56. (1753). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: Burser herb. 1: 303, (UPS). LT designated by Michael, Proc. Conf. Weed Control in Rice, 291–306 (1983).

Recent Synonyms: *Echinochloa glabrescens* Kossenko, *Not. Syst. Herb. Inst. Bot. Acad. Sci. URSS*, 11: 40 (1949).

Illustrations (Books): C.E.Hubbard, *Grasses* (1968) (364), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (363, Fig. 312), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (119, Fig. 72), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (357, Fig. 134), N.Feinbrun-Dothan, *Flora Palaestina* 4 (1986) (Pl. 405), L.Boulos, *Flora of Egypt* 4 (2005) (293, Pl. 86), N.L.Bor, *Gramineae* in K.H.Rechinger, *Flora Iranica*. No. 70/30 (1970) (Tab. 67), N.L.Bor, *Gramineae* in *Flora of Iraq* (1968) (483, Pl. 185), T.Koyama, *Grasses of Japan and its neighbouring regions* (1987) (349, Fig. 135), C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (530), C-C Hsu, *Taiwan Grasses* (1975) (553, Pl. 1429 as var. *formosensis*), K.M.Matthew, *Flora Palni Hills* (1996) (819, Pl. 819 & 820, Pl. 820 as var. *crus-galli*, *breviseta*), T.A.Cope, *Flora of Pakistan* 143: *Poaceae* (1982) (194, Fig. 21), H.J.Noltie, *The Grasses of Bhutan* (2000) (699, Fig. 39), H.B.Gilliland, *Grasses of Malaya* (1971) (169, Fig. 33), H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005) (63, Fig. 54), E.E.Henty, *A Manual of the Grasses of New Guinea* (1969) (75, Pl. 27), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (446, Fig. 377), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (592, Fig. 120), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler, *Grasses of New South Wales*, 4th edn (2008), K.F.Best, et al, *Prairie Grasses* (1971) (111), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (403), F.W.Gould, *The Grasses of Texas* (1975) (538, Fig. 281), A.S.Hitchcock, *Manual of the Grasses of the West Indies* (1936) (329, Fig. 301 & 330, Fig. 302), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (860, Fig. 176), A.Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (344, Fig. 142), A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970), M.N.Correa, *Flora Patagonica* Parte III, Gramineae (1978) (522, Fig. 350), F.O.Zuloaga et al, *Flora del Paraguay* 23 (1994) (146, Fig. 42), B.Rosengurt, *Gramineas Uruguayas I* (1970) (312, Fig. 132 as varieties *crusgalli*, *mitis*), G.Harling & C.Persson, *Flora of Ecuador* (2006) (78: 51, Fig. 3 (2006)), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 726 as *E. crusgalli* var. *crusgalli*, *E. crusgalli* var. *mitis* & *E. crusgalli* var. *zeylanis*), E.Hafliger & E.Schultz, *Grass Weeds*, CIBA-GEIGY (1:555(1980)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, L.Boulos, *Flora of Egypt* 4 (2005);, H.B.Gilliland et al., *Flora of Malaya* Vol. 3 *Grasses* (1971);.

Derivation (Clifford & Bostock 2007): *L. crus*, foot; *gallus*, cock. Inflorescence resembles a cock's foot.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual, caespitose. Culms geniculately ascending or decumbent, 30–120 cm long. Leaf-sheaths glabrous on surface. Ligule absent. Leaf-blades 8–35 cm long, 8–20 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 5–15, borne along a central axis, ascending, unilateral, 2–10 cm long, with branchlets at base of longer racemes. Central inflorescence axis 6–22 cm long. Rhachis angular, with scattered hairs, scabrous on margins. Spikelet packing crowded, irregular, 2–4 -rowed. Spikelets in pairs or clustered at each node. Fertile spikelets sessile and pedicelled, 2–4 in the cluster, subequal. Pedicels present, oblong, 0.5–2 mm long.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret

male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, gibbous, acuminate, 3–4 mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume oblate, 0.3–0.4 length of spikelet, without keels, 3–5 -veined. Lower glume surface scabrous. Lower glume apex cuspidate. Upper glume ovate, membranous, without keels, 5 -veined. Upper glume surface hispid. Upper glume apex cuspidate.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 5–7 -veined, hispid, acuminate, muticous or awned. Awn of lower sterile floret terminal, 0–50 mm long. Fertile lemma ovate, gibbous, 2–3 mm long, indurate, much thinner above, pallid or yellow, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex acute, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3, 1 mm long.

$N = 18$ (1 ref TROPICOS), or 24 (1 ref TROPICOS), or 25 (1 ref TROPICOS), or 27 (3 refs TROPICOS). $2n = 36$ (1 ref TROPICOS), or 54 (2 refs TROPICOS).

Distribution (TDWG). Continent. Europe, Africa, Temperate Asia, Tropical Asia, Australasia (*), Pacific, North America, South America.

Region. Northern Europe (*), Middle Europe, Southwestern Europe, Southeastern Europe, Eastern Europe.

Country /Province /State. : Great Britain (*). : Balears, Corsica, France, Portugal, Spain, Azores. : Albania, Bulgaria, Greece, Italy, Crete, Yugoslavia. Belarus, Estonia, Latvia, Lithuania, Baltic States, Central European Russia, East European Russia, North European Russia, South European Russia, Northwest European Russia, Moldova, Ukraine. **Northern Africa, Macaronesia, West tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean.** Algeria, Egypt, Morocco, Tunisia. Azores, Canary Is, Cape Verde, Madeira. Ethiopia (inc. Eritrea). Tanzania, Uganda. Malawi. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Lesotho, Northern Cape, Western Cape, Eastern Cape. Mauritius (*), Madagascar (*). Siberia, Russian far east, **Middle Asia, Caucasus, Western Asia, Arabian Peninsula, China, Mongolia, Eastern Asia.** Altay, Buryatiya, Chita, Irkutsk, Tuva. Amur, Khabarovsk, Kuril Is, Primorye, Sakhalin. Kazakhstan, Turkmenistan, Tadjikistan, Uzbekistan. Iran, Iraq. Gulf States. Japan, Kazan-retto, Nansei-Shoto, Ogosawara-shoto, Taiwan. **Indian Subcontinent, Indo-China, Malesia, Papuasia.** Assam, Bangladesh, Eastern Himalaya, India, Pakistan, Sri Lanka, West Himalaya. Andaman Is, Cambodia, Laos, Myanmar, Thailand, Vietnam. Borneo, Java, Lesser Sunda Is, Malaya, Singapore, Philippines, Sulawesi, Sumatra. New Guinea, Solomon Is. **Australia, New Zealand.** Western Australia (*), Northern Territory (*), South Australia (*), Queensland (*), New South Wales (*), A.C.T. (*), Victoria (*), Tasmania (*), Lord Howe-Norfolk Is (*). Chatham Is, Kermadec Is, New Zealand North I, New Zealand South I. **Southwestern Pacific, South-central Pacific, Northwestern Pacific, North-central Pacific.** Fiji, Gilbert Is, New Caledonia. Marquesas, Tubuai Is. Caroline Is, Marshall Is. Hawaii (*). **Subarctic America, Western Canada, Eastern Canada, Northwest USA, North-central USA, Northeast USA, Southwestern USA, South-central USA, Southeastern USA, Mexico.** Central Mexico, Northeast Mexico, Gulf (Mexico), Northwest Mexico, Southwest Mexico, Southeast Mexico. **Caribbean, Western South America, Brazil, Southern South America.** Bermuda, Cuba, Haiti, Jamaica. Bolivia, Colombia. Brazil West Central, Brazil Northeast, Brazil North, Brazil Southeast, Brazil South. Argentina Northeast, Argentina South, Argentina Northwest, Chile Central, Chile South, Paraguay, Uruguay.

TDWG4. Darjeeling, Bhutan. Meghalaya, Nagaland. Kimberley, South-West. Central Australia. NW & Lake Eyre, Southern. North, Central, South East, Inland. Coast, Tablelands, Western Slopes, Western Plains. Catamarca, Jujuy, Mendoza, Salta, San Juan, San Luis. Buenos Aires, Chaco, Cordoba, Corrientes, Distrito Federal, Entre Rios, La Pampa, Misiones, Santa Fe. Neuquén, Río Negro. Coquimbo, Valparaiso, Santiago, O'Higgins, Maule, Biobio, La Araucania. Los Lagos. Distrito Federal, Mexico State, Puebla. Aguascalientes, Coahuila, Chihuahua, Durango, Guanajuato, Hidalgo, Neuvo Leon, San Luis Potosi, Tamaulipas, Zacatecas. Veracruz. Baja California, Baja California Sur, Sinaloa, Sonora. Colima, Guerrero, Jalisco, Michoacan, Nayarit, Oaxaca. Tabasco.

Echinochloa cruspavonis (Kunth) Schult. *Mant.* 2: 269 (1824).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from Venezuela. **Basionym or Replaced Name:** *Oplismenus crus-pavonis* Kunth, *Nov. Gen. et Sp.* 1: 108 (1815). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: Humboldt &

Bonpland s.n., Sep, Venezuela: Sucre: Cumana, vicinity of Bordones (P (photo, US); IT: US (fragm.)). *Crescit in apricis caldissimis Provinciae Cumanensis prope Bordones, floret Septembri, Humboldt & Bonpland s.n.*

Illustrations (Books): S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (214, Fig. 88), M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (399 as var. *crus-pavonis* & *macra*), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (446, Fig. 378), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (226), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (205, Fig. 32), A.S.Hitchcock, *Manual of the Grasses of the West Indies* (1936), S.A.Rennoize, *Gramineas de Bolivia* (1998) (426, Fig. 91), S.A.Rennoize, *The Grasses of Bahia*, 1984 (188, Fig. 71), J.A.Steyermark et al, *Flora of the Venezuelan Guayana Vol. 8* (2004) (91, Fig. 59), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (860, Fig. 176 & 867, Fig. 179), A.Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (342, Fig. 141), W.Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (198, Fig. 65), A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (514, Fig. 134), F.O.Zuloaga et al, *Flora del Paraguay* 23 (1994) (146, Fig. 42), B.Rosengurt, *Gramineas Uruguayas I* (1970) (314, Fig. 133), E.Judziewicz, *Flora of the Guianas*, 187. *Poaceae* (1990) (190 Fig. 30), S-L Chen et al, *Flora of China*, Illustrations, *Poaceae* (2007) (Fig. 725), E.Hafliger & E.Schultz, *Grass Weeds*, CIBA-GEIGY (1:56(1980)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. crus*, foot; *pavonis*, peacock. Inflorescence resembles a peacock's foot.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Perennial. Culms geniculately ascending or decumbent, robust, 50–200 cm long, without nodal roots or rooting from lower nodes. Leaf-sheaths smooth. Ligule absent. Leaf-blades 15–60 cm long, 5–25 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes numerous, borne along a central axis, unilateral, 3–15 cm long, secondarily branched, secondary branches racemulose. Central inflorescence axis 10–30 cm long. Rhachis angular. Spikelet packing 4 -rowed. Spikelets solitary or clustered at each node. Fertile spikelets sessile, 2–4 in the cluster.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, gibbous, acuminate, 2–3(–3.5) mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, clasping, 0.3–0.5 length of spikelet, membranous, without keels, 3–5 -veined. Lower glume surface hispid. Lower glume apex acute. Upper glume ovate, membranous, without keels, 5 -veined. Upper glume surface hispid. Upper glume apex cuspidate.

Florets. Basal sterile florets 1, male or barren, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 5 -veined, hispid, acute or acuminate, awned. Awn of lower sterile floret 1–3(–7) mm long. Fertile lemma ovate, gibbous, 2–2.5 mm long, indurate, much thinner above, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex acuminate, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3, 0.5 mm long.

$2n = 36$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe (*), Africa, Temperate Asia, Tropical Asia, Australasia (*), North America, South America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Middle Atlantic ocean.** Ghana, Guinea, Ivory Coast, Liberia, Nigeria, Sierre Leone. Cameroon, Rwanda, DRC. Ethiopia (inc. Eritrea), Somalia, Sudan. Kenya, Tanzania, Uganda. Angola, Malawi, Zambia. Kwazulu-Natal, Western Cape, Eastern Cape. **China.** China South Central, Hainan, China North-Central, China Southeast. **Indian Subcontinent, Indo-China, Papuasia.** Assam, India. Andaman Is, Cambodia, Myanmar, Vietnam. New Guinea. **Australia, New Zealand.** Western Australia (*), South Australia (*), Queensland (*), New South Wales (*). New Zealand North I, New Zealand South I. **Western Canada, North-central USA, Southwestern USA, South-central USA, Southeastern USA, Mexico.** British Columbia. Kansas. California. New Mexico, Texas. Florida, Louisiana, South Carolina, Virginia. Central Mexico, Northeast Mexico, Gulf (Mexico), Northwest Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica, Caribbean, Northern South America, Western South America, Brazil, Southern South America.** Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama. Bermuda, Cuba, Dominican Republic, Haiti, Jamaica, Leeward Is, Puerto Rico, Trinidad-Tobago. French Guiana, Guyana, Surinam, Venezuela. Bolivia, Colombia, Ecuador, Peru.

Brazil West Central, Brazil Northeast, Brazil North, Brazil Southeast, Brazil South. Argentina Northeast, Argentina Northwest, Chile North, Chile Central, Chile South, Paraguay, Uruguay.

TDWG4. Shaanxi. Anhui, Fujian, Guangdong. Guizhou, Sichuan. Assam. West Bengal. South-West. Southern. South East. Coast, Tablelands, Western Slopes, Western Plains. Catamarca, Jujuy, La Rioja, Mendoza, Salta, Santiago del Estero, San Juan, San Luis, Tucuman. Buenos Aires, Chaco, Cordoba, Corrientes, Distrito Federal, Entre Rios, Formosa, La Pampa, Misiones, Santa Fe. Tarapaca. Coquimbo, Valparaiso, Santiago, Maule, Biobio, La Araucania. Los Lagos. Distrito Federal, Mexico State, Morelos, Puebla. Aguascalientes, Coahuila, Chihuahua, Durango, Guanajuato, Neuvo Leon, San Luis Potosi, Tamaulipas, Zacatecas. Veracruz. Baja California, Baja California Sur, Sinaloa. Colima, Guerrero, Jalisco, Michoacan, Nayarit, Oaxaca. Chiapas, Tabasco.

Echinochloa dietrichiana P.W.Michael. *Telopea* 8: 403 (1999).

Regarded by K as a synonym (*E. telmatophila*).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia, Queensland. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Queensland: Cook District: South Johnstone, 17:33'S, 146:00'E, *R.H. Edmonson s.n.* (HT: BRI-079502).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. *-ana*, indicating connection. In honor of Amalie Dietrich (1821–1891) German museum collector who lived for several years in Australia.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory, South Australia, Queensland.

TDWG4. Darwin & Gulf. North, Central, South East.

Echinochloa elliptica P.W. Michael & J.W. Vickery. *Telopea* 2(1): 28 (1980).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Northern Territory: Coastal Plains Research Station, 30 mi SE of Darwin, common on heavy soil banks of rice bays, tufted erect perennial 3–4 ft high, 13 Mar 1963, M. Lazarides 6805 (HT: CANB-135762; IT: K, NT-22337).

Illustrations (Books): D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Derivation (Clifford & Bostock 2007): Gk. *elluipsis*, ellipse; *-ike*, belonging to. Spikelets elliptical in outline.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, 80–150 cm long, compressible, 6-noded, without nodal roots or rooting from lower nodes. Culm-nodes glabrous. Lateral branches lacking or sparse. Leaf-sheaths keeled, pilose, with tubercle-based hairs. Ligule a fringe of hairs, 1 mm long. Leaf-blades 7–15 cm long, 5–10 mm wide. Leaf-blade midrib conspicuous. Leaf-blade surface pilose, hairy on both sides, with tubercle-based hairs. Leaf-blade margins cartilaginous, scabrous, glabrous or tuberculate-ciliate, hairy at base. Leaf-blade apex attenuate.

Inflorescence. Inflorescence composed of racemes, embraced at base by subtending leaf. Racemes numerous, borne along a central axis, closely spaced, erect or ascending, unilateral, 2–4 cm long. Central inflorescence axis 7–15 cm long. Rhachis subterete, with scattered hairs, scabrous on margins. Spikelet packing 4-rowed. Spikelets in pairs. Fertile spikelets pedicelled, subequal. Pedicels present, unequal, 0.5–0.75 mm long, scabrous, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, acuminate, 4–4.5 mm long, 1.5 mm wide, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, clasping, 0.5 length of spikelet, without keels, 3–5-veined. Lower glume surface scabrous, hispidulous, hairy on veins. Lower glume apex acute or acuminate. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5-veined. Upper glume surface scabrous, hispidulous, hairy on veins. Upper glume apex acuminate, muticous or awned, 1-awned, awn 1–10 mm long.

Florets. Basal sterile florets 1, barren, with palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, membranous, 5(–7) -veined, scabrous, hispidulous, hairy on veins, attenuate, awned. Awn of lower sterile floret 6–30 mm long. Fertile lemma ovate, 3–4 mm long, indurate, much thinner above, shiny, without keel, 5 -veined, 0–3 -veined. Lemma margins involute. Lemma apex cuspidate, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3, 0.75–1 mm long. Caryopsis with adherent pericarp, ellipsoid, 1.9–2.3 mm long. Embryo 0.6 length of caryopsis.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland.

TDWG4. Kimberley, Darwin & Gulf, Victoria R & Barkly Tableland. North.

Echinochloa esculenta (A. Braun) H. Scholz. *Taxon* 41(3): 523 (1992).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Japan. **Basionym or Replaced Name:** *Panicum esculentum* A. Braun, Index Sem. (Berlin) 1861(App.): 3 (1861). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: NT: *Koernicke s.n.*, Cult. Hort. Bonn-Poppelsdorf, 28 Oct 1875 (B). NT designated by Scholz, *Taxon* 41: 523 (1992). "E.seminibus a Th. Schottmller, expeditionis navalis Borussicae hortulano, a Japonia, ubi prope Jeddo et Jokuhama colitur, missis provenit".

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (447, Fig 379), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (592, Fig 120), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler,, *Grasses of New South Wales*, 4th edn (2008) (227), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (403).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. edible. Grain edible.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual. Culms robust, 100–150 cm long. Ligule absent. Leaf-blades 20–35 cm long, 12–25 mm wide. Leaf-blade surface scaberrulous. Leaf-blade margins scaberrulous.

Inflorescence. Inflorescence composed of racemes. Racemes 12–15, borne along a central axis, closely spaced (inflorescence lanceolate), arcuate to flexuous, unilateral, 0.5–3 cm long, simple. Central inflorescence axis 10–20 cm long. Rhachis angular. Spikelet packing crowded, irregular, 4–6 -rowed. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets obovate, dorsally compressed, gibbous, cuspidate, 3–3.5 mm long, persistent on plant.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 0.3–0.4 length of spikelet, membranous, red or purple, without keels, 5 -veined. Lower glume margins ciliate. Lower glume apex acute. Upper glume obovate, membranous, red or purple, without keels, 5 -veined. Upper glume surface hispidulous. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, chartaceous, 7 -veined, pubescent, acuminate, muticous or awned. Awn of lower sterile floret 10–20 mm long. Fertile lemma ovate, gibbous, 2.5–3 mm long, indurate, much thinner above, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex acute, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Europe (*), Temperate Asia, Australasia (*), Pacific, North America (+).

Region. Northern Europe (*).

Country /Province /State. : Great Britain (*). Russian far east, **China, Eastern Asia.** Kuril Is, Primorye, Sakhalin. China South Central. **Australia, New Zealand.** Western Australia (*), South Australia (*), Queensland (*), New South Wales (*), A.C.T. (*), Victoria (*), Tasmania (*). Kermadec Is, New Zealand North I, New Zealand South I. **North-central Pacific.** Fiji (*). Hawaii (*).

TDWG4. Guizhou, Hubei, Yunnan. Kimberley, South-West. Southern. North, Central, South East, Inland. Coast, Tablelands, Western Slopes, Western Plains.

Echinochloa frumentacea Link. *Hort. Berol.* 1: 204 (1827).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from India. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Based on *Panicum frumentaceum* Roxb.

Illustrations (Books): C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (532), C-C Hsu, *Taiwan Grasses* (1975), K.M.Matthew, Further Illustrations on the *Flora of Tamilnadu Carnatic* (1988) (Pl. 764), H.J.Noltie, *The Grasses of Bhutan* (2000) (699, Fig. 39), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (227), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (401).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. frumentum*, pertaining to grain; -acea, resembling. Species serving as cereals or suspected of being suitable as cereals.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual. Culms erect, robust, 30–150 cm long. Leaf-sheaths glabrous on surface. Ligule absent. Leaf-blades 10–30 cm long, 5–20 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes numerous, borne along a central axis, closely spaced (inflorescence lanceolate), unilateral, 1–3 cm long, simple. Central inflorescence axis 6–20 cm long. Rhachis angular, glabrous on surface or pilose on surface. Spikelet packing crowded, 4–6 -rowed. Spikelets in pairs or clustered at each node. Fertile spikelets sessile, 2–4 in the cluster.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic or orbicular, dorsally compressed, compressed slightly, gibbous, acuminate, 2.5–3.5 mm long, persistent on plant.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 0.3–0.4 length of spikelet, membranous, pallid or yellow, without keels, 3 -veined. Lower glume surface pubescent or hispid. Lower glume apex acute. Upper glume ovate, membranous, pallid or yellow, without keels, 3–7 -veined. Upper glume surface pubescent or hispid. Upper glume apex cuspidate.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 5–7 -veined, pubescent or hispid, acute. Fertile lemma ovate, gibbous, 2–3 mm long, indurate, much thinner above, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex acute, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3. Caryopsis exposed between gaping lemma and palea at maturity.

$N = 27$ (2 refs TROPICOS). $2n = 36$ (1 ref TROPICOS), or 54 (2 refs TROPICOS).

Distribution (TDWG). Continent. Europe (*), Africa (+), Temperate Asia, Tropical Asia, Australasia (*), North America.

Region. Northern Europe (*).

Country /Province /State. : Great Britain (*). **East tropical Africa, South tropical Africa.** Tanzania. Malawi, Mozambique, Zambia. **Middle Asia, Arabian Peninsula, China, Eastern Asia.** Uzbekistan. China South Central, Inner Mongolia, Manchuria, China Southeast. Taiwan. **Indian Subcontinent.** Assam, Eastern Himalaya, Pakistan, Sri Lanka. **Australia.** Western Australia (*), Queensland (*), New South Wales (*), Victoria (*), Tasmania (*). Fiji (*). **Brazil.** Brazil Southeast.

TDWG4. Anhui, Guangxi, Henan. Guizhou, Sichuan, Yunnan. Arunachal Pradesh, Darjeeling, Sikkim. Assam. Andhra Pradesh, Bihar, Diu, Goa, Gujarat, Kerala. Rajasthan, Tamilnadu, Uttah Pradesh, West Bengal. Jammu Kashmir. Kimberley, South-West. North, Central, South East, Inland. Coast, Tablelands, Western Slopes, Western Plains.

Echinochloa glabrescens Kossenko. *Not. Syst. Herb. Inst. Bot. Acad. Sci. URSS* 11: 40 (1949).

Regarded by K as a synonym (*E. crusgalli*).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from India. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: India: Rottler in Wallich 8687B (K holotype).

Illustrations (Books): K.M.Matthew, Further Illustrations on the *Flora of Tamilnadu Carnatic* (1988) (pl.765), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 725).

Derivation (Clifford & Bostock 2007): L. glabresco, becoming glabrous. Quite glabrous with respect to the whole plant or one or more of its parts.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Flower and Fruit. $2n = 54$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia, South America.

Country /Province /State. China, Eastern Asia. China South Central, China Southeast. Japan, Korea, Taiwan. **Indian Subcontinent.** Eastern Himalaya, India, Nepal. **Caribbean.** Bermuda, Cuba, Haiti, Jamaica.

TDWG4. Guangdong, Guangxi, Jiangsu, Zhejiang, Guizhou, Sichuan, Yunnan.

Echinochloa haploclada (Stapf) Stapf. Prain, *Fl. Trop. Afr.* 9: 613 (1920).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Tanzania. **Basionym or Replaced Name:** *Panicum haplocladum* Stapf, *Bull. Misc. Inform. Kew* 1908: 59 (1908)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Hildebrandt* 2022, Jul 1876, Tanzania: Fessland bei Mombassa (US-1649777 (ex Mez hb. I:215), US-1061607 (ex B)).

ST: *Hildebrandt*, Tanzania (K).

ST: *Grant s.n.*, Tanzania (K).

Illustrations (Books): S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (214, Fig 88).

Derivation (Clifford & Bostock 2007): Gk. haploos; single; klados, branch. Panicle comprising racemes.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Perennial. Rhizomes elongated. Culms 30–300 cm long, firm or wiry. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs or absent. Leaf-blades 5–30 cm long, 3–10(–20) mm wide, concolorous or variegated (with purple bars).

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, unilateral, 1–5 cm long, simple. Central inflorescence axis 7–25 cm long. Rhachis angular. Spikelet packing crowded, 4 -rowed. Spikelets appressed, in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic or orbicular, dorsally compressed, compressed slightly, gibbous, cuspidate, 1.5–2.5(–3) mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, clasping, 0.3–0.4 length of spikelet, membranous, purple, without keels, 3–5 -veined. Lower glume surface hispid. Lower glume apex cuspidate. Upper glume ovate, membranous, purple, without keels, 5 -veined. Upper glume surface hispidulous. Upper glume apex cuspidate.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 5 -veined, hispidulous, cuspidate, muticous or awned. Awn of lower sterile floret flexuous (curved), 0–5(–15) mm long. Fertile lemma ovate, gibbous, 1.5–2.3 mm long, indurate, much thinner above, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex acute, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3.

$N = 9$ (1 ref TROPICOS), or 27 (2 ref TROPICOS).

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa. DRC. Ethiopia (inc. Eritrea), Somalia, Sudan. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Limpopo, Gauteng, Mpumalanga, Swaziland.

Echinochloa helodes (Hack.) Parodi. *Physis*, 8: 72 (1925) (1925).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

Basionym or Replaced Name: *Panicum spectabile* var. *helodes* Hack., *Anales Mus. Nac. Buenos Aires* 11: 74 (1904)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: "... estancia San Teodoro, ped. Villa-monte, Dep. Rio I. Prov. Cordoba.", *Stuckert: Herb. arg.* 13,863. 8.II.1904.

Illustrations (Books): E.G.Nicora, *Los Generos de Gramineas de America Austral* (1987) (448, Fig. 158), A.Burkat, *Flora Ilustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (341, Fig. 140), A.L.Cabrera,

Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas (1970), B.Rosengurtt, *Gramineas Uruguayas I* (1970) (316, Fig. 134).

Derivation (Clifford & Bostock 2007): Gk. helos, marsh meadow. Swamp species.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Perennial. Rhizomes elongated. Culms decumbent, 30–130 cm long, 3–4 mm diam. Culm-nodes pubescent. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs, 1–4 mm long. Leaf-blades 7.5–30 cm long, 5–12 mm wide. Leaf-blade surface glabrous. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 5–10, borne along a central axis, appressed, unilateral, 2–4 cm long. Central inflorescence axis 6–20 cm long. Rhachis subterete, scabrous on margins. Spikelet packing 4-rowed. Spikelets in pairs. Fertile spikelets pedicelled, subequal. Pedicels present, unequal, 1–6 mm long, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, cuspidate, 6–7 mm long, 1.7–2.2 mm wide, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, clasping, 4.5–5 mm long, 0.75 length of spikelet, without keels, 7-veined. Lower glume surface scabrous, rough on veins. Lower glume apex cuspidate. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 9-veined. Upper glume surface hispidulous. Upper glume apex acuminate, awned, 1-awned, awn 2–5 mm long.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, membranous, 9-veined, hispidulous, acuminate, awned. Awn of lower sterile floret 5–15 mm long. Fertile lemma ovate, 5–5.8 mm long, indurate, much thinner above, shiny, without keel. Lemma margins involute. Lemma apex rostrate, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3, 3.5–4 mm long, red. Caryopsis with adherent pericarp.

N = 27 (1 ref TROPICOS).

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil, Southern South America. Brazil South. Argentina Northeast, Uruguay.

TDWG4. Buenos Aires, Chaco, Cordoba, Distrito Federal, Entre Rios, Santa Fe.

Echinochloa holciformis (Kunth) Chase. *Proc. Biol. Soc. Washington* 24: 155 (1911).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mexico. **Basionym or Replaced Name:** *Oplismenus holciformis* Kunth, *Nov. Gen. Sp. (quarto ed.)* 1: 107 (1815) [1816]

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *F.W.H.A. von Humboldt & A.J.A. Bonpland 4362*, Sep, Mexico: prope Cinapécuaro [Zinepécuaro] (P; IT: B-W, US-80699 (fragm. ex P), US-2903504 (fragm. ex B-W)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. forma, appearance. Inflorescence a dense panicle as with *Holcus*.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Perennial. Culms decumbent, 100–150 cm long, 10–15 mm diam., rooting from lower nodes. Culm-nodes glabrous. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs. Leaf-blades 20–30 cm long, 5–15 mm wide. Leaf-blade surface glabrous. Leaf-blade margins cartilaginous, scabrous, ciliate.

Inflorescence. Inflorescence composed of racemes. Racemes numerous, borne along a central axis, closely spaced, unilateral, 4–8 cm long. Central inflorescence axis 15–30 cm long. Rhachis subterete. Spikelet packing 4-rowed. Spikelets in pairs. Fertile spikelets pedicelled, subequal. Pedicels present, unequal.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, cuspidate, 6–7 mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, clasping, 2–2.5 mm long, 0.33 length of spikelet, without keels, 3-veined. Lower glume apex acute or cuspidate. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5-veined. Upper glume surface hispidulous, hairy on veins. Upper glume apex acuminate, mucronate or awned, 1-awned, awn 0.5–2 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, membranous, 5-veined, hispidulous, hairy on veins, acuminate, awned. Awn of lower sterile floret (10–)35–50 mm long. Fertile lemma ovate, 5–6 mm long, coriaceous, much

thinner above, shiny, without keel. Lemma margins involute. Lemma apex acuminate, laterally pinched, mucronate. Palea reflexed at apex, coriaceous.

Flower and Fruit. Anthers 3. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. Mexico. Central Mexico, Northeast Mexico, Southwest Mexico. **Mesoamerica.** Guatemala.

TDWG4. Distrito Federal, Mexico State, Puebla. Aguascalientes, Durango, Guanajuato, Queretaro, Zacatecas. Sonora. Jalisco, Michoacan, Nayarit.

Echinochloa inundata Michael & Vickery. *Telopea* 1(1): 46 (1975).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: New South Wales: Western Plains, Boorooma Creek, between Walgett and Brewarrina, 27 Feb 1968, P. Michael A 80 (HT: NSW-113971).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (448, Fig 380), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (227).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. inundo*, flooded. Growing in places subject to flooding.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, 60–120 cm long, 4–8 mm diam., compressible, 5 -noded. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheaths glabrous on surface. Ligule absent. Leaf-blades 15–30 cm long, 6–12 mm wide. Leaf-blade surface glabrous. Leaf-blade margins scabrous. Leaf-blade apex acute or acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes numerous, borne along a central axis, erect or ascending, unilateral, 2–6 cm long. Central inflorescence axis 7–10 cm long, with scattered hairs. Rhachis subterete, scabrous on margins. Spikelet packing crowded, 4 -rowed. Spikelets in pairs. Fertile spikelets pedicelled, subequal. Pedicels present, unequal.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, cuspidate, 3.5–5 mm long, 1.75–2 mm wide, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, clasping, 0.5–0.6 length of spikelet, without keels, 3–5 -veined. Lower glume surface scabrous. Lower glume apex cuspidate. Upper glume ovate, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface scabrous, hispidulous, with tubercle-based hairs. Upper glume apex cuspidate, mucicous or mucronate.

Florets. Basal sterile florets 1, male or barren, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 5–7 -veined, concave across back, hispidulous, with tubercle-based hairs, cuspidate, mucicous or awned. Awn of lower sterile floret 0–12 mm long. Palea of lower sterile floret 0.75–0.85 length of lemma. Fertile lemma elliptic, 3.5–3.75 mm long, indurate, much thinner above, yellow, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex acute, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3, 1–1.3 mm long. Caryopsis with adherent pericarp, ovoid, 1.8–2.2 mm long, light brown. Embryo 0.75 length of caryopsis.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. South Australia, Queensland, New South Wales.

TDWG4. NW & Lake Eyre. North, Central, South East, Inland. Western Plains.

Echinochloa jaliscana R. McVaugh. *Fl. Novo-Galiciana* 14: 153 (1983).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mexico. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: R. McVaugh 17272, 24 Aug 1958, Mexico: Jalisco: near Km 58, road from Zapotlanejo, ca. 7 mi WNW of Totolan, 1800 m (MICH IT: US-2381209).

Illustrations (Books): R.McVaugh, *Flora Nova-Galiciana* Vol.14 *Gramineae* (1983).

Derivation (Clifford & Bostock 2007): *L. -anum*, indicating location. From Jalisco, Mexico.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 30–60 cm long. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs, 0.7–1.5 mm long. Leaf-blades 10–15 cm long, 7–9 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 5–10, borne along a central axis, unilateral, 2–3 cm long. Central inflorescence axis 4–11 cm long. Rhachis angular. Spikelet packing crowded, irregular, 2–4-rowed. Spikelets in pairs. Fertile spikelets sessile and pedicelled, subequal. Pedicels present, oblong.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate, dorsally compressed, plano-convex, acuminate, 5–6 mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 0.33–0.5 length of spikelet, without keels, 5 -veined. Lower glume surface scabrous. Lower glume apex cuspidate. Upper glume ovate, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface hispid. Upper glume apex cuspidate.

Florets. Basal sterile florets 1, barren, with palea or without significant palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 5 -veined, hispid, acuminate, mucronate or awned. Awn of lower sterile floret terminal, 0.5–1 mm long. Palea of lower sterile floret 0–1 mm long. Fertile lemma ovate, gibbous, 3.3–4 mm long, 2.3–2.5 mm wide, indurate, pallid or yellow, without keel. Lemma margins involute. Lemma apex apiculate. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. North America.

Country /Province /State. Mexico. Central Mexico, Northeast Mexico, Southwest Mexico.

TDWG4. Mexico State. Guanajuato, Zacatecas. Jalisco, Michoacan.

Echinochloa jubata Stapf. Prain, *Fl. Trop. Afr.* 9: 619 (1920).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Malawi. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Malawi, Mwaremba: *McClounie 20* (K holotype).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. jubum*, mane; -ata, possessing. The inflorescence or awn resembles a fox tail.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Perennial. Culms geniculately ascending or rambling, 50–200 cm long, spongy. Culm-nodes glabrous. Leaf-sheaths glabrous on surface or pubescent. Ligule a fringe of hairs. Leaf-blades 10–25 cm long, 3–15 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, closely spaced, in a multilateral false spike, unilateral, 2–4 cm long, simple. Central inflorescence axis 8–20 cm long. Rhachis angular. Spikelet packing crowded, irregular, 4 -rowed. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, gibbous, acuminate, 3–3.5(–4) mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 0.25–0.75 length of spikelet, membranous, without keels, 3–5 -veined. Lower glume surface hispidulous. Lower glume apex cuspidate. Upper glume ovate, membranous, without keels, 5–7 -veined. Upper glume surface hispidulous. Upper glume apex acuminate, awned, 1 -awned, awn 1–6 mm long.

Florets. Basal sterile florets 1, male or barren, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 7 -veined, hispidulous, acuminate, awned. Awn of lower sterile floret 3–25 mm long. Fertile lemma ovate, gibbous, 2.5–3 mm long, indurate, much thinner above, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex acute, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, East tropical Africa, South tropical Africa, Southern Africa. DRC. Tanzania. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Free State, Kwazulu-Natal, Lesotho, Northern Cape, Eastern Cape.

Echinochloa kimberleyensis P.W. Michael & J.W. Vickery. *Telopea* 2(1): 2 (1980).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Western Australia: grown at Kimberley Research Station, dispatched Nov 1950, *E. C. B. Langfield 211* (HT: CANB-24931; IT: CANB-24391a).

Illustrations (Books): D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From the Kimberley Region of north-western Australia.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual. Culms erect, 100–200 cm long, 3–5 mm diam., compressible, 5-noded. Culm-nodes glabrous. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs, 0.25–1 mm long. Leaf-blades 4–6 mm wide. Leaf-blade surface glabrous. Leaf-blade margins cartilaginous, scabrous, ciliate. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 7–15, borne along a central axis, erect or ascending, unilateral, 2–7 cm long, with branchlets at base of longer racemes. Central inflorescence axis 10–25 cm long. Rhachis subterete, scabrous on margins. Spikelet packing 4-rowed. Spikelets in pairs. Fertile spikelets pedicelled, subequal. Pedicels present, unequal, 0.25–1.25 mm long, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, cuspidate, 5–7.5 mm long, falling entire. Rhachilla internodes elongated between glumes.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, clasping, 0.5 length of spikelet, without keels, 3-veined. Lower glume surface scabrous, rough on veins. Lower glume margins ciliolate. Lower glume apex acute or acuminate. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 7-veined. Upper glume surface scabrous, rough generally. Upper glume apex cuspidate.

Florets. Basal sterile florets 1, barren, with palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, membranous, 5-veined, scabrous, rough on veins, acuminate, awned. Awn of lower sterile floret 50–85 mm long. Palea of lower sterile floret 0.25–0.5 length of lemma, pubescent, adorned on keels. Fertile lemma ovate, gibbous, 5–6.5 mm long, indurate, much thinner above, shiny, without keel, 5-veined, more than 3-veined. Lemma margins involute. Lemma apex cuspidate, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3, 1.5–2.1 mm long. Caryopsis with adherent pericarp, ellipsoid, 2.75–3.5 mm long. Embryo 0.5–0.6 length of caryopsis.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland.

TDWG4. Kimberley. Darwin & Gulf. North.

Echinochloa lacunaria (F. Muell.) Michael & Vickery. *Telopea* 1 (1): 44 (1975).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Panicum lacunarium* F. Muell., *Trans. & Proc. Philos. Inst. Victoria* 1854–1855: 47 (1855). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: "Around the Murray lagoons.", no collector cited.

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (227).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. lacuna, cavity; -aria, pertaining to.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual. Butt sheaths papery. Culms erect, slender, 45–90 cm long, 4-noded. Culm-internodes ridged, smooth. Culm-nodes glabrous. Leaf-sheaths loose, keeled, smooth, glabrous on surface. Ligule absent. Leaf-blades 10–25 cm long, 5–7 mm wide. Leaf-blade venation with 6 secondary veins. Leaf-blade surface smooth, glabrous. Leaf-blade margins cartilaginous, smooth. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes few, borne along a central axis, erect, unilateral, 2–6 cm long, simple or with branchlets at base of longer racemes. Rhachis narrowly winged, angular,

smooth on margins. Spikelet packing lax, 4 -rowed. Raceme-bases glabrous. Spikelets in pairs. Fertile spikelets pedicelled, subequal. Pedicels present, unequal, glabrous, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic or ovate, dorsally compressed, turgidly plano-convex, acute, 4.75–6 mm long, 2 mm wide, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, clasping, 0.33–0.5 length of spikelet, without keels, 3–5 -veined. Lower glume surface smooth or asperulous. Lower glume apex acute or acuminate. Upper glume elliptic, gibbous, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface asperulous, rough above. Upper glume apex acuminate or cuspidate.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, membranous, 5–7 -veined, concave across back, scaberulous, rough above, acuminate or cuspidate. Fertile lemma elliptic or ovate, gibbous, 4 mm long, 2 mm wide, indurate, much thinner above, yellow, shiny, without keel, 5 -veined, more than 3-veined. Lemma lateral veins obscure. Lemma surface smooth. Lemma margins involute. Lemma apex cuspidate. Palea reflexed at apex, 1 length of lemma, indurate.

Flower and Fruit. Anthers 3, 1.1–1.3 mm long, brown. Caryopsis with adherent pericarp, ellipsoid or oblong, 2.2–2.3 mm long. Embryo 0.75 length of caryopsis.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. South Australia, New South Wales.

TDWG4. Southern. Western Plains.

Echinochloa macrandra P.W. Michael & J.W. Vickery. *Telopea* 2(1): 27 (1980).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Western Australia: The razorbacks, near 65 mi peg on Wyndham-Darwin road, Kimberly, swamp on heavy grey clay, annual in damp mud, seed voucher(CSIRO Acces. no. W662), 17 Apr 1956, *Burbidge 5185* (HT: CANB-35478; IT: CANB-35480).

Illustrations (Books): D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): Gk. makros, large; aner, man. Anthers long.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual. Culms erect, 80–200 cm long, 3–6 mm diam., 6–7 -noded. Culm-internodes terete, striate, smooth, distally glabrous. Culm-nodes glabrous. Lateral branches lacking or sparse. Leaf-sheaths loose, mostly shorter than adjacent culm internode, without keel or keeled, striately veined, smooth, glabrous on surface, outer margin glabrous or hairy. Ligule a fringe of hairs, 1–1.5 mm long. Collar pubescent. Leaf-blades 12–25 cm long, 6–12 mm wide. Leaf-blade midrib conspicuous. Leaf-blade venation with 12 secondary veins. Leaf-blade surface smooth or scaberulous, glabrous. Leaf-blade margins cartilaginous, scabrous, glabrous or tuberculate-ciliate, hairy at base. Leaf-blade apex acuminate or attenuate.

Inflorescence. Inflorescence composed of racemes. Racemes numerous, borne along a central axis, erect or ascending, unilateral, 3–7 cm long, simple or with branchlets at base of longer racemes. Rhachis angular, scabrous on margins. Spikelet packing lax, 4 -rowed. Raceme-bases hirsute. Spikelets in pairs. Fertile spikelets pedicelled, subequal. Pedicels present, unequal, 0.5–1 mm long, scabrous, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, cuspidate, 6 mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, clasping, 0.5–0.66 length of spikelet, without keels, 5 -veined. Lower glume surface asperulous. Lower glume apex acute or acuminate. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5–7 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex acuminate or caudate, muticous or awned, 1 -awned, awn 5–10 mm long.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, membranous, 7 -veined, flat across back or concave across back, scabrous or spinulose, rough on veins, acuminate, awned. Awn of lower sterile floret 20–90 mm long. Palea of lower sterile floret 1 length of lemma. Fertile lemma elliptic, gibbous, 4.5–5 mm long, indurate, much thinner above, yellow,

shiny, without keel, 5 -veined, more than 3-veined. Lemma lateral veins obscure. Lemma surface striate. Lemma margins involute. Lemma apex cuspidate, scabrous. Palea reflexed at apex, 1 length of lemma, indurate.

Flower and Fruit. Anthers 3, 2.5–2.8 mm long, orange. Caryopsis with adherent pericarp, ellipsoid or oblong, 3–3.1 mm long, pallid or light brown. Embryo 0.6 length of caryopsis.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia.

TDWG4. Kimberley, Darwin & Gulf.

Echinochloa microstachya (Wieg.)Rydb. *Brittonia* 1: 82 (1931).

Regarded by K as a synonym (*E. muricata*).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000).

TYPE from USA. **Basionym or Replaced Name:** *Echinochloa muricata* var. *microstachya* Wiegand, *Rhodora* 23(267): 58–60 (1921). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: Palmer 97, USA: New York: Tompkins Co.: Ithaca (GH).

Illustrations (Books): N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (as *E. muricata* var. *microstachya*), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (228).

Derivation (Clifford & Bostock 2007): Gk. mikros, small; stachys, ear of corn. Inflorescences or spikelets small.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Distribution (TDWG). Continent. Australasia, North America.

Country /Province /State. Australia. New South Wales, Victoria. **Northwest USA, North-central USA, Northeast USA, Southwestern USA, South-central USA, Southeastern USA.**

Echinochloa muricata (Beauv) Fernald. *Rhodora* 17: 106 (1915).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Canada. **Basionym or Replaced Name:** *Setaria muricata* Beauv., *Agrost.* 51; *Roem. & Schult. Syst.* 2: 495 (1812). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: : Based on *Panicum muricatum* Michx. ; Canada, Lake Champlain: Michaux (P holo).

Illustrations (Books): N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (592, Fig 120 as var. *microstachya*), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (397 as var. *muricata* & *microstachya*), F.W.Gould, *The Grasses of Texas* (1975) (535, Fig. 279 as var. *microstachya*).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. rough. Glumes bear short hard points.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, 80–150 cm long. Culm-nodes glabrous. Leaf-sheaths glabrous on surface. Ligule absent. Leaf-blades 1–2.5 mm wide. Leaf-blade surface glabrous. Leaf-blade margins spinulose.

Inflorescence. Inflorescence composed of racemes. Racemes 8–15, borne along a central axis, spreading, unilateral, 2–8 cm long, with branchlets at base of longer racemes. Central inflorescence axis 10–30 cm long. Rhachis subterete. Spikelet packing crowded, 4 -rowed. Spikelets in pairs. Fertile spikelets pedicelled, subequal. Pedicels present, unequal.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate, dorsally compressed, gibbous, cuspidate, 3–4 mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, clasping, 0.33–0.75 length of spikelet, without keels. Lower glume surface scabrous. Lower glume apex cuspidate. Upper glume ovate, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface hispidulous, with tubercle-based hairs. Upper glume apex cuspidate.

Florets. Basal sterile florets 1, barren, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 5 -veined, hispidulous, with tubercle-based hairs, cuspidate, muticous or awned. Awn of lower sterile floret 5–25 mm long. Fertile lemma ovate, gibbous, 3–3.8 mm long, indurate,

much thinner above, shiny, without keel. Lemma margins involute. Lemma apex acute, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3, 0.5–1 mm long. Caryopsis with adherent pericarp, oblong or orbicular, 1.2–1.9 mm long.

Distribution (TDWG). Continent. Europe (*), Australasia (*), North America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Australia.** New South Wales (*), Victoria (*). **Western Canada, Eastern Canada, Northwest USA, North-central USA, Northeast USA, Southwestern USA, South-central USA, Southeastern USA, Mexico.** Alberta, Manitoba, Saskatchewan. Nova Scotia, Ontario, Quebec. Idaho, Montana, Washington. Illinois, Iowa, Kansas, Minnesota, Missouri, North Dakota, Nebraska, Oklahoma, South Dakota, Wisconsin. Connecticut, Indiana, Maine, Massachusetts, Michigan, Ohio, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, West Virginia. Arizona, California. New Mexico, Texas. Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, District of Columbia. Northeast Mexico.

TDWG4. Western Slopes, Western Plains. Chihuahua, Durango.

Echinochloa obtusiflora Stapf. Prain, *Fl. Trop. Afr.* 9: 606 (1920).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Cameroon. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Macleod 91*, Cameroon (Bogolo river) (K).

ST: *Macleod 151a*, Cameroon (Logone river) (K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. obtusus*, blunt; flos, flower.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual, caespitose, clumped loosely. Culms geniculately ascending, 15–45 cm long, 2-noded. Culm-internodes terete, smooth, distally glabrous. Lateral branches sparse. Leaf-sheaths tight, striately veined, smooth, glabrous on surface. Ligule a fringe of hairs. Leaf-blades 5–10 cm long, 2–3 mm wide. Leaf-blade venation with 19 secondary veins. Leaf-blade surface glabrous. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 2–5, borne along a central axis, unilateral, 1–2.5 cm long. Central inflorescence axis 3–15 cm long. Rhachis angular, 0.75 mm wide, scabrous on margins. Spikelet packing regular, 4-rowed. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, compressed slightly, obtuse, 2.2–3.4 mm long, falling entire. Spikelet callus oblong, incorporating lowest rhachilla internode with adnate lower glume, 0.5 mm long.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, clasping, 0.3–0.4 length of spikelet, membranous or chartaceous, without keels, 5-veined. Lower glume surface asperulous, rough above. Lower glume apex obtuse. Upper glume ovate, chartaceous, without keels, 5-veined. Upper glume apex obtuse.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, chartaceous, 5-veined, obtuse. Fertile lemma elliptic, 2.2–3.4 mm long, indurate, pallid, shiny, without keel. Lemma surface striate. Lemma margins involute. Lemma apex apiculate. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3, 2 mm long.

N = 9 (2 refs TROPICOS).

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, West-central tropical Africa, and Northeast tropical Africa. Nigeria, Niger. Sudan.

Echinochloa oplismenoides (Fourn.) Hitchc. *Contrib. US Nat. Herb.* 22:136 (1920).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mexico. **Basionym or Replaced Name:** *Berchtoldia oplismenoides* E. Fourn., *Mexic. Pl.* 2: 41 (1886)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *J.L. Berlandier 1140*, no date, Mexico: Mexico: Toluca, Lerma (P; IT: US-865575 (fragm.)).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (401).

Derivation (Clifford & Bostock 2007): Gk. -oides, resembling. In habit similar to *Oplismenus*.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual, caespitose. Culms 50–100 cm long. Leaf-sheaths glabrous on surface. Ligule absent. Leaf-blades 10–25 cm long, 5–10 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 5–15, borne along a central axis, appressed, unilateral, 2–5 cm long. Central inflorescence axis 10–15 cm long. Rhachis angular. Spikelet packing crowded, irregular, 2–4 -rowed. Spikelets in pairs. Fertile spikelets sessile and pedicelled, subequal. Pedicels present, oblong.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, plano-convex, acuminate, 4–5 mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 2 mm long, 0.33–0.5 length of spikelet, without keels, 5 -veined. Lower glume surface scabrous. Lower glume apex cuspidate. Upper glume ovate, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface hispid. Upper glume apex cuspidate.

Florets. Basal sterile florets 1, barren, with palea or without significant palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 5 -veined, hispid, acuminate, awned. Awn of lower sterile floret terminal, 8–16 mm long. Fertile lemma elliptic, gibbous, 4–4.5 mm long, 1.5–1.7 mm wide, indurate, without keel. Lemma margins involute. Lemma apex apiculate. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. North America.

Country /Province /State. Southwestern USA, Mexico. Arizona. Central Mexico, Northeast Mexico, Northwest Mexico, Southwest Mexico, Southeast Mexico.

TDWG4. Distrito Federal, Mexico State, Puebla, Tlaxcala. Aguascalientes, Chihuahua, Durango, Hidalgo, Queretaro, Zacatecas. Veracruz. Sonora. Jalisco, Michoacan, Oaxaca. Tabasco, Yucatan.

Echinochloa oryzoides (Ard.) Fritsch. *Verh. zool.-bot. Ges. Wien* 41: 742 (1891).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983), W.D.Clayton & N.Snow, Key to Pacific Grasses (2010).

TYPE from Italy. **Basionym or Replaced Name:** *Panicum oryzoides* Ard., *Animadv. Bot. Spec. Alt.* 2: 16, pl. 5 (1764). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Semina hujus Panicis inventa a me fuere inter Oryzam,.

Recent Synonyms: *Echinochloa pungens* (Poir.) Rydb., *Brittonia*, 1: 81 (1931). *Echinochloa oryzicola* Vasinger, *Verh. zool.-bot. Ges. Wien* 41: 742 (1891).

Echinochloa persistentia Z.S. Diao, *Acta Bot. Yunnan.* 10(3): 371–372, f. 1. (1988).

Illustrations (Books): K.M.Matthew, Further Illustrations on the *Flora of Tamilnadu Carnatic* (1988) (Pl.766 & Pl.767), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (228), M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (403), A.Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (341, Fig. 140), F.O.Zuloaga et al, *Flora del Paraguay* 23 (1994) (142, Fig. 41).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): Gk. -oides, appearance. Resembling *Oryza*.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual. Culms erect, 25–150 cm long. Leaf-sheaths glabrous on surface. Ligule absent. Leaf-blades 7–35 cm long, 5–12 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, unilateral, 2–5 cm long, simple. Central inflorescence axis 6–25 cm long. Rhachis angular. Spikelet packing irregular, 2 -rowed. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret

male or barren, the upper fertile. Spikelets ovate, dorsally compressed, gibbous, cuspidate, 3.8–6.5 mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 0.3–0.4 length of spikelet, membranous, without keels, 3–5 -veined. Lower glume surface hispid. Lower glume apex cuspidate. Upper glume ovate, membranous, without keels, 5 -veined. Upper glume surface hispidulous. Upper glume apex acuminate.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 5 -veined, hispid, acuminate, mucous or awned. Awn of lower sterile floret 0–25 mm long. Fertile lemma ovate, gibbous, 3.5–5 mm long, indurate, much thinner above, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex cuspidate, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3.

$N = 27$ (1 ref TROPICOS). $2n = 36$ (1 ref TROPICOS), or 54 (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe, Africa, Temperate Asia, Tropical Asia, Australasia (*), Pacific, North America, South America.

Region. Northern Europe (*), Middle Europe, Southwestern Europe, Southeastern Europe, Eastern Europe.

Country /Province /State. : GB Aliens (Ryves et al). : Czechoslovakia, Hungary. : Portugal, Sardinia, Spain. : Italy, Romania, Sicily. Krym, East European Russia, South European Russia, Northwest European Russia, Moldova, Ukraine. **West-central tropical Africa, South tropical Africa.** DRC. Russian far east, **Middle Asia, Caucasus, Western Asia, China, Eastern Asia, Russia.** Primorye. Kazakhstan, Kirgizistan, Turkmenistan, Tadjikistan, Uzbekistan. China South Central, Hainan, Manchuria, China North-Central, China Southeast, Tibet, Xinjiang. Japan, Korea, Taiwan. **Indian Subcontinent, Indo-China, Malesia.** India, Pakistan, West Himalaya. Vietnam. Philippines. **Australia.** Western Australia (*), New South Wales (*). **North-central Pacific.** Fiji (*). Caroline Is (*). Hawaii (*). **Southwestern USA, Southeastern USA.** California. Louisiana. **Caribbean, Western South America, Southern South America.** Peru. Argentina Northeast, Paraguay.

TDWG4. Gansu, Hebei. Anhui, Guangdong, Henan, Hunan, Jiangsu. Guizhou, Hubei, Sichuan, Yunnan. Kimberley, South-West. Western Slopes, Western Plains. San Juan. Corrientes, Entre Rios, Misiones.

Echinochloa paludigena Wiegand. *Rhodora* 23: 64 (1921).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: A. *Fredholm* 6390, 17 Sep 1904, USA: Florida: Hillsborough Co. (GH; IT: US-907828).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (397).

Derivation (Clifford & Bostock 2007): L. palus, swamp; gigno, bring forth. Growing in swampy places.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual, culms solitary. Culms erect, 100–150 cm long. Leaf-sheaths glabrous on surface. Ligule absent. Leaf-blades 15–60 cm long, 8–20 mm wide. Leaf-blade surface scabrous, rough adaxially, glabrous. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 10–20, borne along a central axis, unilateral, 2–14 cm long, with branchlets at base of longer racemes. Central inflorescence axis 15–40 cm long. Rhachis subterete. Spikelet packing 4 -rowed. Raceme-bases brief, pilose. Spikelets in pairs. Fertile spikelets pedicelled, subequal. Pedicels present, unequal.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate, dorsally compressed, cuspidate, 4.2–4.5 mm long, 2.4–2.6 mm wide, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, clasping, 0.5 length of spikelet, without keels, 3 -veined. Lower glume surface hispidulous. Lower glume apex cuspidate. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface hispidulous. Upper glume apex cuspidate.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, membranous, 5 -veined, hispidulous, acuminate, awned. Awn of lower sterile floret 1–15 mm long. Fertile lemma ovate, 4–4.2 mm long, indurate, much thinner above, shiny, without keel. Lemma margins involute. Lemma apex cuspidate, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3, 1.2–1.7 mm long. Caryopsis with adherent pericarp, 1.5–1.8 mm long. Embryo 0.8 length of caryopsis.

Distribution (TDWG). Continent. North America.
Country /Province /State. Southeastern USA. Florida.

Echinochloa phyllopogon Stapf. *Bot. Mater. Gerb. Bot. Inst. Komarova Acad. Nauk SSSR* 8(12): 208 (1940).

Regarded by K as a synonym (*E. oryzoides*).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Italy. **Basionym or Replaced Name:** *Panicum phyllopogon* Stapf, *Hook. Ic. Pl.* t. 2698. (1901). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Italy, Pisa: *Arcangeli*.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. phyllon, leaf; pogon, beard. Leaves densely pilose.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Flower and Fruit. *N* = 18 (1 ref TROPICOS). *2n* = 36 (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Eastern Asia. Taiwan.

TDWG4.

Echinochloa picta (Koen.) P.W. Michael. *Philippine J. Weed Sci.* 5: 18 (1978).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*), W.D.Clayton & N.Snow, Key to Pacific Grasses (2010).

TYPE from India. **Basionym or Replaced Name:** *Panicum pictum* J. Kvnig, *Der Naturforscher* 23: 204 (1788). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: India: Coll?.

Illustrations (Books): K.M.Matthew, *Illustrations on the Flora of Tamilnadu Carnatic* (1982) (Pl. 853 & 854), H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005) (63, Fig. 55), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): L. painted. Glumes and/or lemmas with conspicuous pigmented veins or margins.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Perennial. Culms geniculately ascending, 30–90 cm long. Ligule a fringe of hairs. Leaf-blades 10–45 cm long, 3–20 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, simply spaced or closely spaced, unilateral, 1–4 cm long, simple. Rhachis angular. Spikelet packing irregular, 4 -rowed. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate, dorsally compressed, gibbous, cuspidate, 3–4 mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 0.25–0.75 length of spikelet, membranous, without keels, 3–5 -veined. Lower glume surface hispidulous, with simple hairs or tubercle-based hairs. Lower glume apex acute. Upper glume ovate, membranous, without keels, 5 -veined. Upper glume surface hispidulous, with simple hairs or tubercle-based hairs. Upper glume hairs 0.2–0.5 mm long.

Florets. Basal sterile florets 1, male or barren, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 5 -veined, hispidulous, with simple hairs or tubercle-based hairs, bearing hairs 0.2–0.5 mm long, acuminate, awned. Awn of lower sterile floret 2–7 mm long. Fertile lemma ovate, gibbous, 3–4 mm long, indurate, much thinner above, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex acute, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Tropical Asia, Australasia, Pacific.

Country /Province /State. Indian Subcontinent, Indo-China, Malesia, Papuaia. Assam, Eastern Himalaya. Myanmar. Borneo, Java, Malaya, Philippines, Singapore. New Guinea. **Australia.** Queensland. **Southwestern Pacific, North-central Pacific.** Fiji (*), Samoa (*). Marianas (*). Hawaii (*).

TDWG4. Bhutan, Sikkim. North.

Echinochloa pithopus W.D. Clayton. *Kew Bull.* 36(2): 234 (1981).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online.

TYPE from Tanzania. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Tanzania, Urambo farm: *Msagamasi 5724a* (EA holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk *pithos*, large earthenware wine jar; *pous*, foot. Lower internode of rhachilla assume the form of a cylindrical cup.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Culms 80 cm long. Ligule a fringe of hairs. Leaf-blades conduplicate, 10–20 cm long, 4–5 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, appressed, unilateral, 1–3.5 cm long, simple. Central inflorescence axis 5–8 cm long. Rhachis angular. Spikelet packing 2–4 -rowed. Spikelets solitary or in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic or ovate, dorsally compressed, gibbous, cuspidate, 5–5.5 mm long, falling entire. Spikelet callus oblong, incorporating lowest rhachilla internode with adnate lower glume, 1 mm long.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 0.25 length of spikelet, membranous, without keels, 3–5 -veined. Lower glume surface scabrous or spinose. Lower glume apex cuspidate. Upper glume ovate, membranous, without keels, 5 -veined. Upper glume surface scabrous or spinose. Upper glume apex cuspidate.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 5 -veined, sulcate, scabrous, acute. Fertile lemma ovate, gibbous, 4–4.5 mm long, indurate, much thinner above, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex acute, laterally pinched. Palea reflexed at apex, indurate. Palea apex acute.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa. Tanzania.

Echinochloa polystachya (H.B.K.) Hitchc. *Contrib. US Nat. Herb.* 22:135 (1920).

Accepted by: R.J. Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D. Clayton & K. Harman, *GrassBase* (2008) and online, U. Quattrocchi, *CRC World Dictionary of Grasses* (2006), D. Sharp, D. & B.K. Simon, *AusGrass* (2002).

TYPE from Venezuela. **Basionym or Replaced Name:** *Oplismenus polystachyus* Kunth, Nov. Gen. Sp. (quarto ed.) 1: 107 (1815 [1816]). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Humboldt & Bonpland* s.n., Apr, Venezuela: Amazonas: prope Maypure (P; IT: US-s.n. (fragm. ex P)).

Recent Synonyms: *Echinochloa spectabilis* (Nees) Link, *Hort. Berol.* 2: 209 (1833).

Illustrations (Books): S.W.L. Jacobs, R.D.B. Whalley & D.J.B. Wheeler, *Grasses of New South Wales*, 4th edn (2008) (228), D. Sharp & B.K. Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), M.E. Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (395 as var. *polystachya* & *spectabilis*), A.S. Hitchcock, *Manual of the Grasses of the West Indies* (1936) (326, Fig. 298), S.A. Renvoize, *The Grasses of Bahia*, 1984 (188, Fig. 71), J.A. Steyermark et al, *Flora of the Venezuelan Guayana* Vol. 8 (2004) (90, Fig. 58), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (860, Fig. 176 & 862, Fig. 177 as var. *spectabilis*), A. Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (338, Fig. 139), W. Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (198, Fig. 65), A.L. Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (508, Fig. 132 as var. *spectabilis*), F.O. Zuloaga et al, *Flora del Paraguay* 23 (1994) (150, Fig. 43 & as var. *spectabilis*), B. Rosengurt, *Gramineas Uruguayas I* (1970) (316, Fig. 134 as var. *spectabilis*), E. Judziewicz, *Flora of the Guianas*, 187. *Poaceae* (1990) (190, Fig. 30), R. Pilger, *Die Natürlichen Pflanzenfamilien* 14e (1940) (32, Fig. 17).

Illustrations (Journals): *Ruizia* (13:335, Fig 41d-f (1993)).

Images: D. Sharp & B.K. Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): G. polys, many; stachys, ear of corn. Plants with many branched culms or inflorescences.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Perennial. Basal innovations intravaginal. Culms decumbent, 100–300 cm long, 7–15 mm diam., spongy, 5–10 -noded, rooting from lower nodes. Culm-nodes swollen, glabrous or pubescent. Lateral branches ample. Leaf-sheaths glabrous on surface or hispid, with tubercle-based hairs. Ligule

a fringe of hairs, 2–4 mm long. Leaf-blades 25–50 cm long, 20–35 mm wide. Leaf-blade midrib conspicuous. Leaf-blade surface glabrous. Leaf-blade margins spinulose.

Inflorescence. Inflorescence composed of racemes. Racemes numerous, borne along a central axis, unilateral, 2–11 cm long. Central inflorescence axis 15–30 cm long. Rhachis subterete, ciliate on margins. Spikelet packing crowded, 4-rowed. Raceme-bases brief, pilose. Spikelets in threes. Fertile spikelets sessile and pedicelled, subequal. Pedicels present, 0.5–1 mm long, scabrous, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate, dorsally compressed, gibbous, cuspidate, 4.5–6 mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, clasping, 1.9–4.2 mm long, 0.4–0.75 length of spikelet, without keels, 5–7 -veined. Lower glume surface scabrous. Lower glume margins ciliate. Lower glume apex cuspidate. Upper glume ovate, 1 length of spikelet, membranous, without keels, 5–7 -veined. Upper glume surface hispidulous, hairy on veins. Upper glume apex cuspidate, muticous or awned, 1 -awned, awn 0–7.5 mm long.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 5 -veined, hispidulous, cuspidate, muticous or awned. Awn of lower sterile floret 2–15 mm long. Palea of lower sterile floret 1 length of lemma, scabrous, adorned on keels. Fertile lemma elliptic, gibbous, 2.5–5 mm long, indurate, much thinner above, shiny, without keel. Lemma margins involute. Lemma apex obtuse, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3, 1.5–3.6 mm long, orange. Caryopsis with adherent pericarp.
 $2n = 108$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Australasia (*), North America, South America.

Country /Province /State. **Australia.** Northern Territory (*), Queensland (*). **South-central USA, Southeastern USA, Mexico.** Texas. Florida, Louisiana. Central Mexico, Northeast Mexico, Gulf (Mexico), Northwest Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica, Caribbean, Northern South America, Western South America, Brazil, Southern South America.** Belize, Costa Rica, Honduras, Nicaragua, Panama. Cuba, Dominican Republic, Haiti, Jamaica, Leeward Is, Windward Islands, Puerto Rico, Trinidad-Tobago. French Guiana, Guyana, Surinam, Venezuela. Bolivia, Colombia, Ecuador, Peru. Brazil West Central, Brazil Northeast, Brazil North, Brazil Southeast, Brazil South. Argentina Northeast, Paraguay, Uruguay.

TDWG4. Darwin & Gulf. North, Central. Para, Amapa, Amazonas, Acre, Rondonia, Bahia, Minas Gerais, Rio de Janeiro, Espirito Santo, Sao Paulo Parana, Catarina, Rio Grande do Sul. Buenos Aires, Chaco, Distrito Federal, Entre Rios, Formosa, Misiones, Santa Fe. Distrito Federal, Puebla. Aguascalientes, Chihuahua, Durango, Tamaulipas, Zacatecas. Veracruz. Sonora. Jalisco, Michoacan, Oaxaca. Campeche, Chiapas, Tabasco, Yucatan.

Echinochloa praestans P.W. Michael. *Telopea*, 2(1): 31 (1980).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)*.

TYPE from Papua New Guinea. **Basionym or Replaced Name:** *Echinochloa praestans* P.W. Michael, *Telopea*, 2(1): 31 (1980). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Papua New Guinea: Central Province: ca. 3 mi N of Hisin village, Kairuku sub-province on edge of permanently inundated swamp in open grassland, 16 Aug 1962, alt. 10 ft, up to 2 m tall, Darbyshire 815 (HT: CANB-113411; IT: A, BH, BO, BRI, GH, K, L, PNH, US).

Illustrations (Books): D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Derivation (Clifford & Bostock 2007): *L. praesto*, stand out.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Perennial. Rhizomes elongated. Culms geniculately ascending, 180–360 cm long, 6–12 mm diam., rooting from lower nodes. Culm-internodes smooth, distally glabrous. Culm-nodes glabrous. Lateral branches lacking or sparse, arising from lower culm. Leaf-sheaths loose, longer than adjacent culm internode, smooth or scaberulous, glabrous on surface or puberulous. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 5 mm long. Leaf-blades 30–50 cm long, 10–30 mm wide. Leaf-blade midrib conspicuous. Leaf-blade venation with 15–18 secondary veins. Leaf-blade surface scabrous, glabrous. Leaf-blade margins cartilaginous, scabrous or spinulose. Leaf-blade apex attenuate.

Inflorescence. Inflorescence composed of racemes. Racemes numerous, borne along a central axis, erect, unilateral, 7–15 cm long, with branchlets at base of longer racemes. Central inflorescence axis 20–50 cm long,

glabrous or puberulous. Rhachis angular, 1 mm wide, scabrous on margins. Spikelet packing contiguous, 2–4 -rowed. Raceme-bases glabrous or hirsute. Spikelets in pairs. Fertile spikelets pedicelled, subequal. Pedicels present, unequal, 1–2 mm long, scabrous, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets oblong or ovate, dorsally compressed, cuspidate, 3.5–4 mm long, falling entire. Rhachilla internodes elongated between glumes.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, clasping, 0.33–0.5 length of spikelet, without keels, 3–5 -veined. Lower glume surface spinose, rough on veins, glabrous or puberulous. Lower glume margins eciliate or ciliolate. Lower glume apex acute or acuminate. Upper glume ovate, 1 length of spikelet, membranous, without keels, 5–9 -veined. Upper glume surface spinose, rough on veins, glabrous or puberulous. Upper glume apex acuminate or caudate.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 7 -veined, flat across back or concave across back, scabrous, rough on veins, cuspidate, muticous or awned. Awn of lower sterile floret 5–15 mm long. Palea of lower sterile floret 1 length of lemma, smooth or scabrous, adorned on keels. Fertile lemma elliptic, gibbous, 3.5 mm long, indurate, much thinner above, yellow, shiny, without keel, 5 -veined, more than 3-veined. Lemma lateral veins obscure. Lemma surface smooth. Lemma margins involute. Lemma apex cuspidate, scabrous. Palea reflexed at apex, 1 length of lemma, indurate.

Flower and Fruit. Anthers 3, 2–2.6 mm long, orange or purple. Caryopsis with adherent pericarp, ellipsoid or oblong, 2–2.5 mm long. Embryo 0.66 length of caryopsis.

Distribution (TDWG). Continent. Tropical Asia, Australasia.

Country /Province /State. Malesia, Papuasias. New Guinea West Papua (Irian Jaya). New Guinea. Australia. Northern Territory.

TDWG4. Darwin & Gulf.

Echinochloa pyramidalis (Lam.) Hitchcock & Chase. *Contrib. US. Nat. Herb.* 18: 345 (1917).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from Senegal. **Basionym or Replaced Name:** *Panicum pyramidale* Lam., *Tabl. Encycl.* 1: 171 (1791). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: D. Roussillon s.n., 1789, Senegal: E. Senegal (P-LAM; IT: US-80942 (fragm. ex P-LAM)).

Recent Synonyms: *Echinochloa holubii* (Stapf) Stapf, Prain, *Fl. Trop. Afr.* 9: 606 (1920).

Illustrations (Books): W. Robyns (1929 and 1934). *Flora Agrostologique du Congo Belge et du Ruanda-Urundi*, I. Maydees et Andropogonees and II. Panicees. Bruxelles, Goemaere (143, Pl. 32), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (359 & 360, Fig 309 & 310 as *E. holubii*), M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984) (as *E. holubii*), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (359 & 361, Fig 135 & 136 as *E. holubii*), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (214, Fig 88), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (449, Fig 381), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (229), M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (395), A.S.Hitchcock, *Manual of the Grasses of the West Indies* (1936) (326, Fig. 297), W.Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (200, Fig 66), E.Hafliger & E.Schultz, *Grass Weeds*, CIBA-GEIGY (1:57(1980)).

Images: D.Sharp & B.K.Simon, *AusGrass*. *Grasses of Australia*. CD-Rom Version 1.0. (2002);, F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999) (& as *E. holubii*).

Derivation (Clifford & Bostock 2007): L. pyramis, pyramid; -ale, pertaining to. Panicle pyramid-shaped.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Perennial. Rhizomes elongated. Culms erect, reed-like, 100–400 cm long. Leaf-sheaths glabrous on surface or hispid. Ligule a fringe of hairs. Leaf-blades 8–60 cm long, 2–25 mm wide, stiff, glaucous.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, simply spaced or closely spaced, ascending, unilateral, 3–20 cm long, simple or secondarily branched. Central inflorescence axis 8–40 cm long. Rhachis angular, glabrous on surface or pilose on surface. Spikelet packing irregular, 4–6 -rowed. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret

male or barren, the upper fertile. Spikelets elliptic or ovate, dorsally compressed, compressed slightly, gibbous, acute, 2.5–3.5(–4) mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, clasping, 0.3–0.4 length of spikelet, membranous, without keels, 5 -veined. Lower glume surface glabrous or hispidulous. Lower glume apex acute. Upper glume ovate, membranous, without keels, 5–7 -veined. Upper glume surface glabrous or hispidulous. Upper glume apex acute.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 5–7 -veined, glabrous or hispidulous, acute or acuminate, muticous or awned (rarely). Awn of lower sterile floret 0–3 mm long. Fertile lemma ovate, gibbous, 2–3 mm long, indurate, much thinner above, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex acute, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3.

N = 9 (1 ref TROPICOS).

Distribution (TDWG). **Continent.** Europe (*), Africa, Temperate Asia, Australasia (*), North America, South America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Northern Africa, West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Middle Atlantic ocean, Western Indian ocean.** Egypt (unconfirmed). Burkina, Gambia, Ghana, Guinea-Bissau, Ivory Coast, Mali, Nigeria, Senegal, Sierre Leone, Niger. Cameroon, Gabon, Rwanda, DRC. Eritrea, Ethiopia (inc. Eritrea), Somalia, Sudan. Kenya, Tanzania, Uganda. Angola, Malawi, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Northern Cape, Western Cape, Eastern Cape. St Helena. Madagascar. **Arabian Peninsula.** Saudi Arabia. **Australia.** Western Australia (*). **Mexico.** Gulf (Mexico), Southwest Mexico, Southeast Mexico. **Mesoamerica, Caribbean, Northern South America.** Costa Rica, Guatemala, Nicaragua. Leeward Is. French Guiana.

TDWG4. South-West. Veracruz. Guerrero, Nayarit, Oaxaca. Campeche, Chiapas, Tabasco, Yucatan.

Echinochloa rotundiflora W.D. Clayton. *Kew Bull.* 34(3): 560 (1980).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ethiopia. **Basionym or Replaced Name:** *Brachiaria obtusiflora* (A. Rich.) Stapf, Prain, *Fl. Trop. Afr.* 9: 534 (1919). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: : Based on *Brachiaria obtusiflora* Stapf.

Illustrations (Books): S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (214, Fig 88).

Derivation (Clifford & Bostock 2007): *L. rotundus*, round; flos, flower. Spikelets spherical.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual. Culms erect, 60–120 cm long, 4–5 -noded. Ligule absent. Leaf-blades linear or lanceolate, 7–20 cm long, 6–10 mm wide. Leaf-blade margins cartilaginous, tuberculate-ciliate.

Inflorescence. Inflorescence composed of racemes. Racemes 5–8, borne along a central axis, unilateral, 2–5 cm long, secondarily branched. Central inflorescence axis 10–30 cm long. Rhachis angular. Spikelet packing irregular, 3–5 -rowed. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, compressed slightly, obtuse, 3.5–5.5 mm long, falling entire. Spikelet callus oblong, incorporating lowest rhachilla internode with adnate lower glume, 0.5 mm long.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, clasping, 0.3–0.4 length of spikelet, membranous or chartaceous, without keels, 5 -veined. Lower glume apex obtuse. Upper glume ovate, chartaceous, without keels, 5 -veined. Upper glume apex obtuse.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, chartaceous, 5 -veined, obtuse. Fertile lemma elliptic, 3.5 mm long, indurate, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex obtuse. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3, 2.5 mm long.

Distribution (TDWG). **Continent.** Africa.

Country /Province /State. **Northern Africa, West tropical Africa, West-central tropical Africa, Northeast tropical Africa.** Egypt. Nigeria. Eritrea, Ethiopia (inc. Eritrea), Sudan.

Echinochloa stagnina (Retz.) Beauv. *Agrost.* 53, 161 (1812).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*), N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960).

TYPE from India. **Basionym or Replaced Name:** *Panicum stagninum* Retz., *Observ. Bot.* 5: 17 (1789).
T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: Koenig s.n., India (LD).

Recent Synonyms: *Echinochloa scabra* (Lam.) Roem. & Schult., *Syst.* 2: 479 (1817).

Illustrations (Books): H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962) (243, Fig. 171), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (362, Fig. 311), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (357, Fig 134), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (214, Fig. 88), L.Boulos, *Flora of Egypt* 4 (2005) (293, Pl. 86), K.M.Matthew, *Flora Palni Hills* (1996) (821, Pl. 821), E.E.Henty, *A Manual of the Grasses of New Guinea* (1969) (75, Pl. 27).

Images: L.Boulos, *Flora of Egypt* 4 (2005);

Derivation (Clifford & Bostock 2007): L. stagnum, pool; -ina, belonging to. Aquatic species.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Perennial. Rhizomes elongated. Culms decumbent or prostrate, 30–200 cm long, spongy, rooting from lower nodes. Culm-nodes glabrous or bearded. Leaf-sheaths glabrous on surface or hispid (rarely). Ligule a fringe of hairs. Leaf-blades 10–45 cm long, 3–20 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, simply spaced or closely spaced, flexuous, unilateral, 2–8 cm long, simple. Central inflorescence axis 6–25 cm long. Rhachis angular. Spikelet packing irregular, 4-rowed. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, gibbous, acuminate, 3.5–6 mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 0.25–0.75 length of spikelet, membranous, without keels, 3–5 -veined. Lower glume surface hispidulous, with simple hairs or tubercle-based hairs. Lower glume apex cuspidate. Upper glume ovate, membranous, without keels, 5 -veined. Upper glume surface hispidulous, with simple hairs or tubercle-based hairs. Upper glume hairs 1 mm long. Upper glume apex acuminate, muticous or awned, 1 -awned, awn 0–4 mm long.

Florets. Basal sterile florets 1, male or barren, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 5 -veined, hispidulous, with simple hairs or tubercle-based hairs, bearing hairs 1 mm long, acuminate, awned. Awn of lower sterile floret (1–)3–20(–50) mm long. Fertile lemma ovate, gibbous, 3–5 mm long, indurate, much thinner above, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex acute, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3.

N = 18 (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa, Tropical Asia.

Country /Province /State. Northern Africa, West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean. Egypt. Burkina, Ghana, Mali, Mauritania, Nigeria, Senegal, Sierre Leone, Niger. Gabon, Rwanda, DRC. Ethiopia (inc. Eritrea), Somalia, Sudan. Kenya, Tanzania, Uganda. Angola, Malawi, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, Gauteng, Mpumalanga, Free State, Lesotho. Madagascar. **Indian Subcontinent, Indo-China, Malesia.** Assam, India, Pakistan, Sri Lanka. Myanmar, Vietnam. Java, Malaya, Philippines, Sulawesi, Sumatra, Singapore. Fiji (*).

TDWG4. Arunachal Pradesh, Darjeeling, Bhutan, Sikkim. Andhra Pradesh, Bihar, Chandigarh, Chattisgarh, Dadra-Nagar-Haveli, Delhi, Diu, Daman, Goa, Gujarat, Haryana, Jharkhand, Kerala, Karaikal, Karnataka. Mahe, Madhya Pradesh, Maharashtra, Orissa, Pondicherry, Punjab, Rajasthan, Tamilnadu, Uttah Pradesh, West Bengal, Yanam. Himachal Pradesh, Jammu Kashmir, Uttaranchal.

Echinochloa telmatophila Michael & Vickery. *Telopea* 1 (1): 44 (1975).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: New South Wales: Central Coast, Lane Cove National Park, 3 Mar 1962, *M. Gray* 5201 (HT: CANB-120623, CANB-120625).

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (229), J.C.Tothill, & J.B.Hacker. *The grasses of southern Queensland* (1983).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): Gk. telmatos, pond; phileo, love. Growing in swamps.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, robust or of moderate stature, 100–180 cm long, 5–9 mm diam., 5–6 -noded, without nodal roots or rooting from lower nodes. Culm-internodes channelled, striate, smooth. Culm-nodes glabrous. Lateral branches lacking or sparse, arising from mid culm or upper culm. Leaf-sheaths longer than adjacent culm internode, keeled, striately veined, glabrous on surface or pilose, with tubercle-based hairs. Ligule absent. Collar glabrous or pubescent. Leaf-blades 15–35 cm long, 9–18 mm wide. Leaf-blade midrib conspicuous. Leaf-blade venation with 10 secondary veins. Leaf-blade surface scabrous, rough adaxially or abaxially or on both sides, glabrous. Leaf-blade margins cartilaginous, scabrous, glabrous or tuberculate-ciliate, hairy at base. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes numerous, borne along a central axis, erect or ascending, unilateral, 2–10 cm long, simple or with branchlets at base of longer racemes. Central inflorescence axis 20–35 cm long. Rhachis angular, scabrous on margins. Spikelet packing crowded, 4 -rowed. Raceme-bases stiffly setose. Spikelets in pairs or in threes. Fertile spikelets pedicelled, subequal. Pedicels present, unequal, scabrous, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, cuspidate, 3–4.2 mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, clasping, 0.33–0.5 length of spikelet, without keels, 3–5 -veined. Lower glume surface scabrous. Lower glume apex acute or acuminate. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface spinose, rough below, puberulous, hairy between veins. Upper glume apex acuminate or cuspidate, mucicous or mucronate, 1 -awned, awn 2–7 mm long.

Florets. Basal sterile florets 1, barren, with palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, membranous, 7 -veined, flat across back, spinulose, rough on veins, puberulous, hairy between veins, acuminate or cuspidate, awned. Awn of lower sterile floret 10–40 mm long. Palea of lower sterile floret 1 length of lemma. Fertile lemma elliptic, gibbous, 3–4.1 mm long, 1.25–1.5 mm wide, indurate, much thinner above, yellow, shiny, without keel, 5 -veined, more than 3-veined. Lemma lateral veins obscure. Lemma surface smooth. Lemma margins involute. Lemma apex cuspidate. Palea reflexed at apex, 1 length of lemma, indurate.

Flower and Fruit. Anthers 3, 0.6–1.5 mm long. Caryopsis with adherent pericarp, oblong, 1.8–2.3 mm long. Embryo 0.75 length of caryopsis.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. **Australia, New Zealand.** Western Australia, Queensland, New South Wales. New Zealand North I.

TDWG4. South-West. North, Central, South East, Inland. Coast, Western Plains.

Echinochloa turneriana (Domin) Black. *Fl. S. Austral.* 2:72 (1943).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Panicum turnerianum* Domin, *Biblioth. Bot.* 85: 307 (1915). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: "West-Queensland: ...", Domin, II. 1910"Original der Art".

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (4450 Fig 382), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (229).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. -ana, indicating connection. In honor of Fred Turner (1856–1939) English-born Australian botanist.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, 15–130 cm long, 3–6 -noded. Culm-nodes glabrous. Leaf-sheaths keeled, glabrous on surface. Ligule a fringe of hairs. Leaf-blades 5–30 cm long, 4–15 mm wide. Leaf-blade surface glabrous. Leaf-blade margins smooth or scaberulous, glabrous or ciliate, hairy at base. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes numerous, borne along a central axis, closely spaced, appressed, unilateral, 1–4 cm long, bearing 10–30 fertile spikelets on each. Central inflorescence axis

2.5–13 cm long, glabrous. Rhachis subterete, scabrous on margins. Spikelet packing 4 -rowed. Spikelets in pairs. Fertile spikelets pedicelled, subequal. Pedicels present, unequal, 0.2–1.1 mm long, scabrous.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate, dorsally compressed, gibbous, cuspidate, 4–5.7 mm long, 1.7–2.2 mm wide, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, clasping, 1.5–2.2 mm long, 0.33–0.5 length of spikelet, without keels, 3–7 -veined. Lower glume surface scabrous. Lower glume apex acute, mucronate. Upper glume elliptic or ovate, 1 length of spikelet, membranous, without keels, 9 -veined. Upper glume surface scabrous. Upper glume apex cuspidate, mucronate.

Florets. Basal sterile florets 1, barren, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 5–7 -veined, concave across back, scabrous, obtuse. Fertile lemma ovate, gibbous, 3.8–5.5 mm long, indurate, much thinner above, shiny, without keel. Lemma margins involute. Lemma apex rostrate, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Europe (*), Australasia.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Australia.** Northern Territory, South Australia, Queensland, New South Wales.

TDWG4. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre. North, Central, South East, Inland.

Echinochloa ugandensis Snowden & C. E. Hubbard. *Kew Bull.* 1936, 315 (1936).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Uganda. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Uganda, Abela: *Liebenberg 851* (K holotype).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From Uganda.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual. Culms geniculately ascending or decumbent, 25–80 cm long. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs. Leaf-blades 7–20 cm long, 3–6 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 3–8, borne along a central axis, in several whorls or distant (inflorescence linear), ascending or erect, unilateral, 1–3 cm long, simple. Central inflorescence axis 5–20 cm long. Rhachis angular. Spikelet packing regular, 4 -rowed. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, gibbous, cuspidate, 2.3–3 mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 0.3–0.4 length of spikelet, membranous, without keels, 3–5 -veined. Lower glume surface pubescent. Lower glume apex cuspidate. Upper glume ovate, membranous, without keels, 5 -veined. Upper glume surface pubescent. Upper glume apex cuspidate.

Florets. Basal sterile florets 1, barren, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 5 -veined, pubescent, cuspidate, muticous or awned. Awn of lower sterile floret 0–6 mm long. Fertile lemma ovate, gibbous, 2.3–2.5 mm long, indurate, much thinner above, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex acute, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Africa.

Country /Province /State. **Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa.** Ethiopia (inc. Eritrea). Kenya, Tanzania, Uganda. Mozambique, Zambia, Zimbabwe. Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Kwazulu-Natal.

Echinochloa utilis Ohwi & Yabuno. *Acta Phytotax. Geobot.* 20: 50–51 (1962).

Regarded by K as a synonym (*E. esculenta*).

Accepted by: N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Japan. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Japan: Honshu: Izumi prov., Sakai, Aug. 1961, *Yabuno s.n.* (HT: TNS).

Illustrations (Books): T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (205, Fig. 32).

Derivation (Clifford & Bostock 2007): L. useful. Grain used as a cereal.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual. Culms erect, robust, 80–150 cm long, 4–10 mm diam. Ligule absent. Leaf-blades 10–50 cm long, 10–30 mm wide. Leaf-blade surface glabrous. Leaf-blade apex acute.

Inflorescence. Inflorescence composed of racemes. Racemes 10–30, borne along a central axis, closely spaced (inflorescence lanceolate), straight or incurved, unilateral, 2–7 cm long, simple or secondarily branched. Central inflorescence axis 8–25 cm long, hispid. Rhachis angular. Spikelet packing crowded, irregular, 4–6 -rowed. Spikelets in pairs or clustered at each node. Fertile spikelets sessile, 2–4 in the cluster.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate, dorsally compressed, compressed slightly, gibbous, acuminate, 3–4 mm long, 2–2.5 mm wide, persistent on plant.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 0.3–0.4 length of spikelet, membranous, purple, without keels, 3 -veined. Lower glume surface hispidulous. Lower glume apex acuminate. Upper glume ovate, membranous, purple, without keels, 3–7 -veined. Upper glume surface hispidulous. Upper glume apex cuspidate, muticous or awned, 1 -awned.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, purple, 5–7 -veined, hispidulous, acuminate, muticous or awned. Fertile lemma ovate, gibbous, 2.5–3.5 mm long, indurate, much thinner above, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex acute. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3. Caryopsis exposed between gaping lemma and palea at maturity.

$2n = 54$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa, Temperate Asia.

Country /Province /State. South tropical Africa. Zimbabwe. Russian far east, Middle Asia, Caucasus, China, Eastern Asia. China South Central. Japan. Hawaii (*).

TDWG4. Guizhou.

Echinochloa walteri (Pursh.) Heller. *Cat. N. Amer. Pl.* (ed. 2) 21 (1900).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Panicum walteri* Pursh, *Fl. Amer. Sept.* 1: 66–67 (1814) [1813]; *Panicum hirtellum* Walt., non L. (1759) *Fl. Carol.* 72 (1788). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: : Based on *P. hirtellum* Walter; USA, South Carolina: Walter (BM lecto).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (399), F.W.Gould, *The Grasses of Texas* (1975) (535, Fig. 280), A.S.Hitchcock, *Manual of the Grasses of the West Indies* (1936) (328, Fig. 300), S.A.Renouze, *Gramineas de Bolivia* (1998) (426, Fig. 91).

Derivation (Clifford & Bostock 2007): in honor of Thomas Walter (1740–89) United States botanist.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe INCERTAE SEDIS.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 100–200 cm long. Culm-nodes glabrous or pubescent. Leaf-sheaths hirsute or hispid, with tubercle-based hairs. Ligule absent. Leaf-blades 8–30 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 10–25, borne along a central axis, unilateral, 2–17 cm long, with branchlets at base of longer racemes. Central inflorescence axis 10–40 cm long. Rhachis subterete, with scattered hairs or glabrous on surface. Spikelet packing crowded, 4 -rowed. Spikelets in pairs. Fertile spikelets pedicelled, subequal. Pedicels present, unequal.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate, dorsally compressed, gibbous, cuspidate, 3–5 mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, clasping, 0.33–0.75 length of spikelet, without keels. Lower glume surface scabrous. Lower glume apex cuspidate. Upper glume ovate, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface spinose, glabrous or hispid. Upper glume apex cuspidate.

Florets. Basal sterile florets 1, barren, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, membranous, 5 -veined, scabrous, hispidulous, cuspidate, awned. Awn of lower

sterile floret 15–60 mm long. Fertile lemma oblong, gibbous, 3–4 mm long, indurate, much thinner above, shiny, without keel. Lemma margins involute. Lemma apex acute, laterally pinched. Palea reflexed at apex, indurate.

Flower and Fruit. Anthers 3. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. Eastern Canada, North-central USA, Northeast USA, South-central USA, Southeastern USA, Mexico. Quebec. Illinois, Iowa, Minnesota, Wisconsin. Maine, Massachusetts, Michigan, New York. Texas. Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina. Southwest Mexico, Southeast Mexico. Mesoamerica, Caribbean, Western South America, Brazil. Guatemala, Honduras. Cayman Is, Cuba, Dominican Republic, Haiti, Jamaica, Puerto Rico. Bolivia, Peru. Brazil Southeast.

Michoacan. Campeche, Tabasco.

Echinolaena ecuadoriana T.S. Filgueiras. *Nordic J. Bot.*, 14(4): 379 (1994).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ecuador. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: C.H. Dodson & A.H. Gentry 12439, 15 Feb. 1982, Ecuador: Guayas: Capeira, km 21, Guayaquil to Daule, alt. 20–200 m, tropical dry forest, erect herb to 40 cm tall in el Limonal, inflorescence green (MO-2931371; IT: US-2934608).

PT: Steyermark 54005, 22 Aug 1943, Ecuador: El Oro (F, US-2934608).

PT: Asplund 5212, 6 Mar 1939, Ecuador: Guayas (MO, S).

PT: Dodson & Dodson 11406, 19 Sep 1981, Ecuador (MO).

Illustrations (Books): G.Harling & C.Persson, *Flora of Ecuador* (2006) (78: 9, Fig. 1 (2006)).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From Ecuador.

Classification. Subfamily Panicoideae. Tribe: Paspaleae. Subtribe PASPALINAE.

Habit, Vegetative Morphology. Perennial. Culms prostrate or rambling, 60–100 cm long, rooting from lower nodes. Culm-nodes glabrous. Lateral branches ample. Leaves cauline. Leaf-sheaths glabrous on surface, outer margin hairy. Ligule a fringe of hairs, 0.7–0.9 mm long. Leaf-blade base with a brief petiole-like connection to sheath, petiole 0.1–0.4 cm long, petiole glabrous or pilose. Leaf-blades oblong, 4.5–12.8 cm long, 10–40 mm wide. Leaf-blade midrib prominent beneath. Leaf-blade surface glabrous or pilose, hairy abaxially. Leaf-blade margins scabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 3–4, borne along a central axis, deflexed, unilateral, 1.5–3 cm long. Central inflorescence axis 4–5 cm long, pilose. Rhachis subterete, 1–1.5 mm wide, pilose on surface, terminating in a barren extension, extension subulate, extension 5–9 mm long. Spikelets pectinate, in pairs. Fertile spikelets pedicelled, 2 in the cluster. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, laterally compressed, acuminate, 5–7 mm long, falling entire, readily shedding fertile florets. Floret callus winged, with apical wings adnate to lemma, with this appendage 0.5 mm long.

Glumes. Glumes dissimilar, exceeding apex of florets, thinner than fertile lemma. Lower glume linear, clasping, 5–7 mm long, 1 length of spikelet, herbaceous, without keels, 3–5 -veined. Lower glume surface pilose, with tubercle-based hairs. Lower glume apex attenuate, muticous or awned, 1 -awned, awn 1–3 mm long. Upper glume elliptic, 5–7 mm long, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface pilose, hairy above, with tubercle-based hairs. Upper glume apex acuminate.

Florets. Basal sterile florets 1, barren, with palea. Lemma of lower sterile floret elliptic, 4–4.2 mm long, membranous, 5 -veined, pilose, hairy above, acute. Palea of lower sterile floret 3–3.3 mm long. Fertile lemma elliptic, dorsally compressed, 2.8–3 mm long, indurate, pallid, shiny, without keel, 5 -veined, more than 3-veined. Lemma surface with distinct germination flap. Lemma margins involute, covering most of palea. Palea involute, indurate.

Flower and Fruit. Anthers 3, 1.6–1.9 mm long. Caryopsis with adherent pericarp, 1.6–1.8 mm long, light brown. Embryo 0.66 length of caryopsis. Hilum linear, 0.33 length of caryopsis.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America. Ecuador.

Echinolaena (Chaseochloa) egregia (A.Camus) FORSAN.

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

Basionym or Replaced Name: *Echinolaena boiviniana* A.Camus, *Bull. Soc. Bot. France*, 75: 912 (1929).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. extraordinary. Differing markedly in some respect from closely related species.

Classification. Subfamily Panicoideae. Tribe: Paspaleae. Subtribe PASPALINAE.

Habit, Vegetative Morphology. Perennial, mat forming. Rhizomes elongated. Culms rambling, 100–120 cm long. Ligule a fringe of hairs. Leaf-blades lanceolate, 13–16 cm long, 12–15 mm wide. Leaf-blade surface pubescent, hairy abaxially. Leaf-blade margins scaberulous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 5–6, borne along a central axis, spreading, unilateral, 1.5–3 cm long. Central inflorescence axis 10–12 cm long. Rhachis flattened, glabrous on margins. Spikelets ascending, solitary or in pairs. Fertile spikelets sessile, 1–2 in the cluster, subequal or the lower smaller (and often aborted).

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate, dorsally compressed, acuminate, 5.5–6 mm long, falling entire, readily shedding fertile florets. Floret callus winged, with apical wings shrivelled to concave scars.

Glumes. Glumes dissimilar, shorter than spikelet, thinner than fertile lemma. Lower glume ovate, 4 mm long, 0.66–0.75 length of spikelet, membranous, 1-keeled, 7 -veined. Lower glume primary vein ciliate. Lower glume surface pilose. Lower glume apex acuminate. Upper glume ovate, 4.8–5 mm long, 0.8 length of spikelet, membranous, 1-keeled, 7 -veined. Upper glume primary vein ciliate. Upper glume apex rostrate.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret ovate, 1 length of spikelet, membranous, 9 -veined, pilose, acute, mucronate. Fertile lemma oblong, dorsally compressed, 3.5 mm long, indurate, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex obtuse. Palea indurate.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

Echinolaena gracilis Swallen. *Journ. Wash. Acad. Sc.* 23: 457 (1933).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Guatemala. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *P. Weatherwax 99 [cited as 1601 in the protologue]*, 3 Mar 1932, Guatemala: Zacapa: open marshy prairie near Los Amates (US-1538066; IT: MO-2099191).

Illustrations (Books): S.A.Renvoize, *Gramineas de Bolivia* (1998) (379, Fig. 80), J.A.Steyermark et al, *Flora of the Venezuelan Guayana* Vol. 8 (2004) (93, Fig. 61), W.Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (202, Fig. 67).

Derivation (Clifford & Bostock 2007): L. slender. Culms or inflorescences slender.

Classification. Subfamily Panicoideae. Tribe: Paspaleae. Subtribe PASPALINAE.

Habit, Vegetative Morphology. Perennial, mat forming. Rhizomes elongated. Culms rambling, 20–50 cm long, rooting from lower nodes. Culm-internodes distally pilose. Culm-nodes bearded. Leaf-sheaths 1.5–2 cm long, hispid, with tubercle-based hairs. Ligule a fringe of hairs, 0.5 mm long. Leaf-blade base cordate. Leaf-blades linear or lanceolate, 2–4 cm long, 5–6 mm wide. Leaf-blade surface pilose, hairy adaxially, with tubercle-based hairs. Leaf-blade margins cartilaginous, tuberculate-ciliate.

Inflorescence. Inflorescence composed of racemes, embraced at base by subtending leaf. Peduncle tipped by a glumaceous appendage. Racemes 1, single, spreading, unilateral, 2–2.5 cm long. Rhachis flattened. Spikelets ascending, solitary or in pairs. Fertile spikelets sessile, 1–2 in the cluster, subequal or the lower smaller (and often aborted).

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, acuminate, 7–10.5 mm long, falling entire, readily shedding fertile florets. Floret callus winged, with apical wings adnate to lemma, with this appendage 1.5 mm long.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume lanceolate, 7–10.5 mm long, 1 length of spikelet, coriaceous, without keels, 7 -veined. Lower glume lateral veins ribbed. Lower glume surface pilose, with tubercle-based hairs. Lower glume apex caudate. Upper glume ovate, 6–6.5 mm long, 0.6–0.8 length of spikelet, herbaceous, without keels, 9 -veined. Upper glume lateral veins ribbed. Upper glume surface pilose, hairy above, with tubercle-based hairs. Upper glume apex acuminate.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret ovate, 1 length of spikelet, herbaceous, 5 -veined, hispid, hairy above, acute. Fertile lemma elliptic, dorsally compressed, 3.6–3.7 mm long,

indurate, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex obtuse. Palea indurate.

Flower and Fruit. $2n = 18$ (1 ref TROPICOS).

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. Mexico. Southeast Mexico. **Mesoamerica, Northern South America, Western South America, Brazil.** Belize, Costa Rica, Guatemala, Honduras, Nicaragua. Venezuela. Bolivia, Colombia. Brazil West Central, Brazil Southeast.

Chiapas.

Echinolaena (Chasechloa) humbertiana (A.Camus) FORSAN.

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Madagascar. **Basionym or Replaced Name:** *Chasechloa humbertiana* A. Camus, *Mem. Inst. Sci. Madag.*, Ser. B, 5: 203 (1955). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Madagascar, Ankarana: Humbert & Capuron 25536.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Panicoideae. Tribe: Paspaleae. Subtribe PASPALINAE.

Habit, Vegetative Morphology. Perennial. Rhizomes elongated. Culms erect or geniculately ascending, 25–35 cm long, without nodal roots or rooting from lower nodes. Culm-internodes striate, distally pubescent. Leaf-sheaths loose, mostly shorter than adjacent culm internode, keeled, striately veined, outer margin hairy. Ligule a fringe of hairs. Leaf-blades lanceolate or ovate, 5–6.5 cm long, 17–18 mm wide. Leaf-blade venation with 6 secondary veins. Leaf-blade surface smooth. Leaf-blade apex acute.

Inflorescence. Inflorescence composed of racemes, terminal and axillary. Peduncle 3–4 cm long, pilose above. Racemes 1, single, spreading, unilateral, 3–3.5 cm long. Rhachis flattened, 5 mm wide. Spikelets pectinate, solitary or in pairs. Fertile spikelets sessile, 1–2 in the cluster, subequal or the lower smaller (and often aborted).

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, laterally compressed, 5–7 mm long, falling entire, readily shedding fertile florets. Floret callus winged, with apical wings adnate to lemma, with this appendage 0.5 mm long.

Glumes. Glumes dissimilar, shorter than spikelet, thinner than fertile lemma. Lower glume elliptic, 4.5–4.6 mm long, 0.75–0.8 length of spikelet, membranous, purple, 1-keeled, 3 -veined. Lower glume primary vein eciliate or ciliate. Lower glume apex dentate, 2 -fid. Upper glume lanceolate or ovate, 5 mm long, 0.8–0.9 length of spikelet, membranous, purple (at tip), 1-keeled, 5 -veined. Upper glume surface glabrous or pubescent. Upper glume apex acuminate.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret ovate, 1 length of spikelet, membranous, without keels, dentate, 2–3 -fid. Fertile lemma elliptic, dorsally compressed, 4.2 mm long, indurate, without keel. Lemma margins involute. Lemma apex mucronate. Palea indurate.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

Echinolaena inflexa (Poir.) Chase. *Proc. Biol. Soc. Washington*, 24: 117 (1911).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from French Guyana. **Basionym or Replaced Name:** *Cenchrus inflexus* Poir., *Encycl.* 6: 50 (1804). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *D. Richard s.n.*, French Guiana: Cayenne (P-LA; IT: US-865731 (fragm. ex P-LAM)).

Illustrations (Books): S.A.Renvoize, *The Grasses of Bahia*, 1984 (247, Fig. 92), J.A.Steyermark et al, *Flora of the Venezuelan Guayana* Vol. 8 (2004), E.Judziewicz, *Flora of the Guianas*, 187. *Poaceae* (1990) (194 Fig 31), R.Pilger, *Die Natürlichen Pflanzenfamilien* 14e (1940) (29, Fig. 20).

Derivation (Clifford & Bostock 2007): L. bent inwards. Panicle branches held erect.

Classification. Subfamily Panicoideae. Tribe: Paspaleae. Subtribe PASPALINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes elongated. Culms decumbent, 20–50(–100) cm long. Ligule a fringe of hairs. Leaf-blades coriaceous, stiff. Leaf-blade surface ribbed. Leaf-blade margins cartilaginous, tuberculate-ciliate. Leaf-blade apex pungent.

Inflorescence. Inflorescence composed of racemes. Peduncle tipped by a glumaceous appendage (representing a rudimentary axis extension). Racemes 1, single, spreading, unilateral, 1–5 cm long. Rhachis

semiterete, puberulous on surface, ciliate on margins. Spikelets pectinate, in pairs. Fertile spikelets sessile, 1–2 in the cluster. Companion sterile spikelets sessile, 0–1 in the cluster.

Sterile Spikelets. Companion sterile spikelets rudimentary.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate, dorsally compressed, acuminate, 5.5–8.5 mm long, falling entire, readily shedding fertile florets. Floret callus winged, with apical wings adnate to lemma, with this appendage 1–1.5 mm long.

Glumes. Glumes dissimilar, shorter than spikelet, thinner than fertile lemma. Lower glume ovate, 1.25 length of upper glume, 1 length of spikelet, coriaceous, without keels, 9 -veined. Lower glume lateral veins ribbed. Lower glume surface setose, hairy between veins, with tubercle-based hairs. Lower glume margins ciliolate. Lower glume apex attenuate. Upper glume ovate, 4.5–7 mm long, membranous, without keels, 7 -veined. Upper glume surface setose, hairy above. Upper glume margins ciliolate. Upper glume apex acute.

Florets. Basal sterile florets 1, male or barren, with palea. Lemma of lower sterile floret ovate, 1 length of spikelet, membranous, 5 -veined, acute. Fertile lemma ovate, 3–4.5 mm long, indurate, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex obtuse. Palea indurate.

Distribution (TDWG). Continent. South America.

Country /Province /State. Northern South America, Western South America, Brazil. French Guiana, Guyana, Surinam, Venezuela. Bolivia, Colombia. Brazil West Central, Brazil Northeast, Brazil Southeast.

TDWG4. Roraima, Para, Amapa, Amazonas, Acre, Rondonia, Goias, Bahia, Ceara, Rio Grande do Norte, Paraiba, Pernambuco, Alagoas, Sergipe, Minas Gerais, Rio de Janeiro, Espirito Santo.

Echinolaena madagascariensis Baker. *Journ. Linn. Soc.* 21: 452 (1885).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Madagascar. **Basionym or Replaced Name:** *Chasechloa madagascariensis* (Baker) A.Camus, *Bull. Soc. Bot. France*, 95: 331 (1949). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *Bernier s.n.*, no date, Madagascar: Antsiranana (P; IT: US-1445176 (fragm. ex hb. Gay)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From Madagascar.

Classification. Subfamily Panicoideae. Tribe: Paspaleae. Subtribe PASPALINAE.

Habit, Vegetative Morphology. Perennial, mat forming. Rhizomes elongated. Culms rambling, 30–60 cm long. Leaf-sheaths outer margin hairy. Ligule a fringe of hairs. Leaf-blade base broadly rounded, asymmetrical. Leaf-blades lanceolate, 7–12 cm long, 10–20 mm wide. Leaf-blade venation with obscure cross veins. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes, terminal and axillary. Racemes 1–3, single or borne along a central axis, spreading, unilateral, 2.5–3.5 cm long. Central inflorescence axis 0–2 cm long. Rhachis flattened, tuberculate on margins, ciliate on margins. Spikelets pectinate, solitary or in pairs. Fertile spikelets sessile, 1–2 in the cluster, subequal or the lower smaller (and often aborted).

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, laterally compressed, acuminate, 5–7 mm long, falling entire, readily shedding fertile florets. Floret callus winged, with apical wings adnate to lemma, with this appendage 0.5 mm long.

Glumes. Glumes dissimilar, shorter than spikelet, thinner than fertile lemma. Lower glume elliptic, 4.5–6 mm long, 0.8–0.9 length of spikelet, membranous, 1-keeled, 5 -veined. Lower glume apex acute, mucronate. Upper glume ovate, 4.5–6 mm long, 0.8–0.9 length of spikelet, membranous, 1-keeled, 7–9 -veined. Upper glume surface pubescent, with tubercle-based hairs. Upper glume apex acute, mucronate.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret ovate, 1 length of spikelet, membranous, without keels, 7 -veined, ciliate on margins, acute. Fertile lemma elliptic, dorsally compressed, 4.5 mm long, indurate, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex obtuse. Palea indurate.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

Echinolaena minarum (Nees) Pilger. *Notizbl. Bot. Gart. Berlin*, 11: 246 (1931).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. **Basionym or Replaced Name:** *Oplismenus minarum* Nees, *Fl. Bras. Enum. Pl.* 2(1): 268–269 (1829)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: LT: *Martius s.n.*, 1823–1824, Brazil: Minas Gerais, edge of forests, near Villa Ricca (M; ILT: B (fragm.), US-976280 (fragm. & photo)). LT designated by Stieber, *Syst. Bot.* 12: 213 (1987).

Recent Synonyms: *Ichnanthus minarum* (Nees) Doell, *Mart.*, *Fl. Bras.* 2,2:294 (1877).

Illustrations (Books): S.A.Renvoize, *Gramineas de Bolivia* (1998) (379, Fig 80), S.A.Renvoize, *The Grasses of Bahia*, 1984 (115, Fig. 41 as *Ichnanthus minarum*), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (759, Fig.159 as *Ichnanthus minarum*).

Illustrations (Journals): *Ruizia* (13:310, Fig 37a-c (1993)).

Derivation (Clifford & Bostock 2007): from Minas Gerais Province, Brazil.

Classification. Subfamily Panicoideae. Tribe: Paspaleae. Subtribe PASPALINAE.

Habit, Vegetative Morphology. Perennial. Culms rambling, 25–60 cm long, rooting from lower nodes. Culm-nodes glabrous. Leaf-sheaths outer margin hairy. Ligule a ciliolate membrane, 1–1.5 mm long. Leaf-blade base with a brief petiole-like connection to sheath, petiole 0.1 cm long. Leaf-blades lanceolate, 4–13 cm long, 3–20 mm wide. Leaf-blade surface pubescent, hairy abaxially. Leaf-blade margins scabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 5–12, borne along a central axis, unilateral, 1–4 cm long. Central inflorescence axis 6–8 cm long. Rhachis angular. Spikelet packing irregular, 4 -rowed. Spikelets pectinate or ascending, in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, 0.5–1 mm long.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets oblong, laterally compressed, acuminate, 4–5 mm long, falling entire, readily shedding fertile florets. Floret callus winged, with apical wings shrivelled to concave scars.

Glumes. Glumes dissimilar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 2–3 mm long, 0.66 length of spikelet, herbaceous, without keels, 3 -veined. Lower glume surface hispid, hairy at apex, with tubercle-based hairs. Lower glume apex cuspidate or caudate, awned, 1 -awned, awn 1–2 mm long. Upper glume oblong, 3–4.5 mm long, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume apex acuminate, mucronate.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret oblong, 2–3.5 mm long, membranous, 5 -veined, obtuse. Fertile lemma oblong, dorsally compressed, 2–2.3 mm long, indurate, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex obtuse. Palea indurate.

Flower and Fruit. Anthers 3, 1.8–2 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Brazil, Southern South America. Bolivia, Colombia, Peru. Brazil Northeast, Brazil Southeast, Brazil South. Argentina Northwest.

TDWG4. Bahia, Minas Gerais, Rio de Janeiro, Espirito Santo, Sao Paulo Parana, Catarina, Rio Grande do Sul. Jujuy, Salta, Tucuman. Misiones.

Echinolaena oplismenoides (Munro ex Doell) M.T. Stieber. *Syst. Bot.*, 12(2): 212 (1987).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. **Basionym or Replaced Name:** *Ichnanthus oplismenoides* Munro ex Dvll, *Fl. Bras.* 2(2): 288 (1877)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *W.J. Burchell 9031*, Brazil: Para: rio Tocantins, between Sco Joco and Funil (K; IT: BR, K, L, LE, P, S, US-975271 (fragm. ex BR), US-975270 (fragm. ex LE)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. -oides, resembling. In habit similar to *Oplismenus*..

Classification. Subfamily Panicoideae. Tribe: Paspaleae. Subtribe PASPALINAE.

Habit, Vegetative Morphology. Perennial. Culms geniculately ascending or decumbent, 60–100 cm long, rooting from lower nodes. Culm-internodes distally glabrous or pilose. Ligule a fringe of hairs, 1–2.5 mm long. Leaf-blade base broadly rounded. Leaf-blades lanceolate, 5–8 cm long, 15–20 mm wide. Leaf-blade surface pubescent, hairy abaxially. Leaf-blade margins tuberculate-ciliate, hairy at base.

Inflorescence. Inflorescence composed of racemes. Racemes 5–12, borne along a central axis, unilateral, 1–4 cm long. Central inflorescence axis 8–15 cm long, pilose. Rhachis subterete, pilose on surface. Spikelets pectinate, in pairs. Fertile spikelets pedicelled, 2 in the cluster. Pedicels present, oblong, 1 mm long.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets oblong, laterally compressed, acuminate, 4–5 mm long, falling entire, readily shedding fertile florets. Floret callus winged, with apical wings adnate to lemma, with this appendage 1 mm long.

Glumes. Glumes similar, exceeding apex of florets, thinner than fertile lemma. Lower glume lanceolate, 2–2.5 mm long, 0.5 length of spikelet, herbaceous, without keels, 5 -veined. Lower glume primary vein ciliate. Lower glume surface pilose, with tubercle-based hairs. Lower glume apex acuminate, awned, 1 -awned, awn 4–6 mm long. Upper glume lanceolate, 3.5–4.5 mm long, 0.9 length of spikelet, membranous, without keels, 5 -veined. Upper glume primary vein ciliate. Upper glume surface pilose, hairy on veins, with tubercle-based hairs. Upper glume apex acuminate, awned, 1 -awned, awn 2–3 mm long.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret elliptic, 3.5–4.5 mm long, membranous, 5 -veined, ciliolate on margins, acute. Fertile lemma elliptic, dorsally compressed, 2–3 mm long, indurate, without keel. Lemma surface granulose. Lemma margins involute, covering most of palea. Lemma apex obtuse. Palea involute, indurate.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Brazil. Ecuador. Brazil North. Goias.

Echinolaena standleyi (A.S. Hitchc.) M.T. Stieber. *Syst. Bot.*, 12(2): 214 (1987).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Honduras. **Basionym or Replaced Name:** *Ichnanthus standleyi* Hitchc., *Contr. U.S. Natl. Herb.* 24(9): 662 (1930)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *P.C. Standley 56207*, 14–27 Feb 1928, Honduras: Comayagua: on wet shaded banks in the vicinity of Siguatepeque, 1080–1400 m (US-1387083; IT: F).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Paul Carpenter Standley (1884–1963) United States botanist.

Classification. Subfamily Panicoideae. Tribe: Paspaleae. Subtribe PASPALINAE.

Habit, Vegetative Morphology. Perennial. Culms prostrate or rambling, 60–100 cm long, rooting from lower nodes. Culm-internodes distally pubescent. Lateral branches ample. Leaves cauline. Leaf-sheaths pubescent, outer margin hairy. Ligule a fringe of hairs. Leaf-blade base without a false petiole or with a false petiole, petiole 0.5–1.5 cm long. Leaf-blades lanceolate, 4–6 cm long, 10–20 mm wide. Leaf-blade surface hispid, sparsely hairy, hairy on both sides. Leaf-blade margins scabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 2–5, borne along a central axis, deflexed, unilateral, 1–2 cm long. Central inflorescence axis 1–8 cm long, glabrous. Rhachis subterete, glabrous on surface, terminating in a barren extension. Spikelets pectinate, in pairs. Fertile spikelets pedicelled, 2 in the cluster. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, laterally compressed, acuminate, 5 mm long, falling entire, readily shedding fertile florets. Floret callus winged, with apical wings adnate to lemma, with this appendage 0.5 mm long.

Glumes. Glumes dissimilar, exceeding apex of florets, thinner than fertile lemma. Lower glume lanceolate, clasping, 5 mm long, 1 length of spikelet, herbaceous, without keels, 3–5 -veined. Lower glume margins ciliate. Lower glume apex acuminate, muticous or awned, 1 -awned. Upper glume elliptic, 5 mm long, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume margins ciliate. Upper glume apex acuminate.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret elliptic, 5 mm long, membranous, 5 -veined, glabrous, acute. Fertile lemma elliptic, dorsally compressed, 3.5 mm long, indurate, pallid, shiny, without keel. Lemma surface with distinct germination flap. Lemma margins involute, covering most of palea. Palea involute, indurate.

Flower and Fruit. Anthers 3. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. Mexico. Southeast Mexico. **Mesoamerica.** Belize, Guatemala, Honduras. Chiapas.

Echinopogon caespitosus C. E. Hubbard. *Hook. Ic. Pl.* 3, sub t. 3261, p. 6 (1935).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia: New South Wales: Northumberland County, near Katoomba, in railway enclosure, common, Apr 1931, Hubbard 8453.

Illustrations (Books): J.P.Jessop, G.R.M. Dasherst & F.M.James, *Grasses of South Australia* (2006) (219, Fig 165 as var. *caespitosus*), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (490, Fig 95), A.Wilson (ed.), *Flora of Australia*, Vol 44A. *Poaceae* (2009) (225, Fig 31as var. *caespitosus*), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (230), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): *L. caespes*, grass that has been cut; -osa, abundance. Habit tufted.

Classification. Subfamily Pooideae. Tribe: Poaeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped moderately or densely. Culms erect or geniculately ascending, 50–100 cm long, 2–4 -noded. Culm-internodes smooth or retrorsely scabrous. Lateral branches lacking. Leaf-sheaths smooth or retrorsely scabrous, glabrous on surface. Ligule an eciliate membrane, 2 mm long, truncate. Leaf-blades erect, 12–25 cm long, 1.5–5 mm wide, stiff. Leaf-blade surface smooth or scaberulous, glabrous or pubescent. Leaf-blade apex acuminate, hardened.

Inflorescence. Inflorescence a panicle. Peduncle straight or nodding, retrorsely scabrous above. Panicle spiciform, lanceolate or oblong, continuous or interrupted, 1–10 cm long, 0.8–2 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with a barren rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–5 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus evident, pubescent. Floret callus hairs 1 mm long.

Glumes. Glumes persistent, similar, reaching apex of florets, thinner than fertile lemma. Lower glume lanceolate, 3–5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous, eciliate or ciliolate. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 3–5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous, eciliate or ciliolate. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma lanceolate or oblong, 3–5 mm long, cartilaginous, keeled, 5–7 -veined, more than 3-veined. Lemma apex entire or dentate, 2 -fid, obtuse or acute, awned, 1 -awned or 3 -awned (rarely). Principal lemma awn apical or from a sinus, 10–14 mm long overall. Lateral lemma awns absent or present, arising on apex of lobes, 0–1.5 mm long, shorter than principal. Palea 1 length of lemma, 2 -veined. Palea keels scabrous, eciliate or ciliolate, adorned above.

Flower and Fruit. Anthers 3, 1–2 mm long. Ovary glabrous or pubescent on apex. Caryopsis with adherent pericarp, glabrous or hairy at apex. Hilum linear.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. South Australia, Queensland, New South Wales, A.C.T., Victoria.

TDWG4. Southern. Central, South East. Coast, Tablelands, Western Slopes.

Echinopogon cheelii C. E. Hubbard. *Hook. Ic. Pl.* 3, sub t. 3261, p. 3 (1935).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia: New South Wales: Gough County: Glen Innes, *Cheel s.n.*.

Illustrations (Books): N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (490, Fig 95), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (231), A.Wilson (ed.), *Flora of Australia*, Vol 44A. *Poaceae* (2009) (225, Fig.31), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Derivation (Clifford & Bostock 2007): in honor of Edmund Cheel (1872–1951) English-born Australian botanist.

Classification. Subfamily Pooideae. Tribe: Poaeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Culms erect or geniculately ascending, 20–100 cm long, 3–5 -noded. Culm-internodes retrorsely scabrous. Lateral branches lacking. Leaf-sheaths retrorsely scabrous, glabrous on surface or pilose. Ligule an eciliate membrane, 1.5 mm long, truncate. Leaf-blades linear or lanceolate, 7–14 cm long, 5–10 mm wide. Leaf-blade surface smooth or scaberulous,

glabrous or pilose, sparsely hairy. Leaf-blade margins scabrous. Leaf-blade apex acute or acuminate, mucicous or pungent.

Inflorescence. Inflorescence a panicle. Peduncle nodding, antrorsely scabrous above. Panicle spiciform or capitate, lanceolate or ovate, 2.5–6 cm long, 1–3 cm wide. Spikelets appressed or ascending, solitary. Fertile spikelets pedicelled. Pedicels present, oblong.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with a barren rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or lanceolate, laterally compressed, 7–10 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus evident, bearded. Floret callus hairs 1.5 mm long.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume lanceolate, 7–10 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous, ciliate. Lower glume lateral veins absent. Lower glume apex attenuate. Upper glume lanceolate, 7–10 mm long, 1.1–1.4 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous, ciliate. Upper glume lateral veins absent. Upper glume apex attenuate.

Florets. Fertile lemma lanceolate, 6–7 mm long, cartilaginous, keeled, 5–9 -veined, more than 3-veined. Lemma surface hispidulous, hairy above. Lemma apex dentate, 2 -fid, acute, awned, 3 -awned. Principal lemma awn from a sinus, 8–22 mm long overall. Lateral lemma awns present, arising on apex of lobes, 2 mm long, shorter than principal. Palea 1 length of lemma, 2 -veined. Palea keels ciliolate, adorned above.

Flower and Fruit. Anthers 3, 2.5–3 mm long. Ovary pubescent on apex. Caryopsis with adherent pericarp, hairy at apex. Hilum linear.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. New South Wales, A.C.T., Victoria.

TDWG4. Coast, Tablelands, Western Slopes.

Echinopogon intermedius C. E. Hubbard. *Hook. Ic. Pl.* 3, t. 3261, (1935).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia: New South Wales: Inglis County: Walcha Road, Dec 1912, *Boorman s.n.*.

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (231), A.Wilson (ed.), *Flora of Australia*, Vol 44A. *Poaceae* (2009) (225, Fig.31), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Hooker's Icones Plantarum* (t.3261 (1935)).

Derivation (Clifford & Bostock 2007): *L. intermediate*. Having affinities with but distinct from other species.

Classification. Subfamily Pooideae. Tribe: Poeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Rhizomes elongated. Culms erect or geniculately ascending, 55–90 cm long, 3–4 -noded. Culm-internodes retrorsely scabrous. Lateral branches lacking. Leaf-sheaths retrorsely scabrous, glabrous on surface. Ligule an eciliate membrane, 1 mm long, truncate. Leaf-blades linear or lanceolate, 2.5–13 cm long, 3–7 mm wide. Leaf-blade surface scaberulous, glabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Peduncle straight, retrorsely scabrous above. Panicle spiciform or capitate, oblong or ovate, 3–6 cm long, 2–4 cm wide. Spikelets ascending or spreading, solitary. Fertile spikelets pedicelled. Pedicels present, oblong.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with a barren rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 5–7 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus brief, bearded. Floret callus hairs 2 mm long.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume lanceolate, 5–7 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous, ciliate. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 5–7 mm long, 1.2–1.4 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous, ciliate. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, 4–5 mm long, cartilaginous, keeled, 5–7 -veined, more than 3-veined. Lemma apex dentate, 2 -fid, acute, awned, 3 -awned. Principal lemma awn from a sinus, 10–25 mm long overall. Lateral lemma awns present, arising on apex of lobes, 2–2.5 mm long, shorter than principal. Palea 1 length of lemma, 2 -veined. Palea keels ciliolate, adorned above.

Flower and Fruit. Anthers 3, 1.5–2 mm long. Ovary glabrous. Caryopsis with adherent pericarp, ellipsoid, 3–3.5 mm long, glabrous. Hilum linear.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland, New South Wales, A.C.T.

TDWG4. South East. Coast, Tablelands, Western Slopes.

Echinopogon mckieii C. E. Hubbard. *Hook. Ic. Pl.* 3, sub t. 3261, p. 9 (1935).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia: New South Wales: Clarke County: Yellow Gap, Oban Road, N.E. of Guyra, soil of granite formation, Dec 1931, McKie 729.

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (231), A.Wilson (ed.), *Flora of Australia*, Vol 44A. *Poaceae* (2009) (225, Fig.31), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Derivation (Clifford & Bostock 2007): in honor of Ernest Norman McKie (1882–1948) Australian cleric and amateur botanist.

Classification. Subfamily Pooideae. Tribe: Poeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Rhizomes elongated. Culms erect or geniculately ascending, 10–35 cm long, 2–4 -noded. Culm-internodes smooth or retrorsely scabrous. Lateral branches lacking. Leaf-sheaths retrorsely scabrous, glabrous on surface or pubescent. Ligule an eciliate membrane, 1.5 mm long, truncate. Leaf-blades 2–12 cm long, 2–3 mm wide. Leaf-blade surface smooth or scaberulous, pubescent, hairy adaxially. Leaf-blade apex obtuse or acute, muticous or pungent.

Inflorescence. Inflorescence a panicle. Peduncle straight, 15–22 cm long, smooth or retrorsely scabrous above. Panicle capitate, oblong, 0.6–2 cm long, 0.6–1.2 cm wide. Spikelets spreading, solitary. Fertile spikelets pedicelled. Pedicels present, oblong.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with a barren rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 2.5–3.5 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus brief, pubescent.

Glumes. Glumes persistent, similar, reaching apex of florets, thinner than fertile lemma. Lower glume lanceolate, 2.5–3.5 mm long, 1 length of upper glume, membranous or chartaceous, 1-keeled, 1 -veined. Lower glume primary vein scabrous, ciliolate. Lower glume lateral veins absent. Lower glume surface pubescent. Lower glume hairs 0.6 mm long. Lower glume apex obtuse or acute. Upper glume lanceolate, 2.5–3.5 mm long, 1 length of adjacent fertile lemma, membranous or chartaceous, 1-keeled, 1 -veined. Upper glume primary vein scabrous, ciliolate. Upper glume lateral veins absent. Upper glume surface pubescent. Upper glume hairs 0.6 mm long. Upper glume apex obtuse or acute.

Florets. Fertile lemma lanceolate or oblong, 2.5–3.5 mm long, cartilaginous, keeled, 5–7 -veined, more than 3-veined. Lemma apex dentate, 2 -fid, with lobes 0.3 mm long, acute, awned, 1 -awned. Principal lemma awn from a sinus, 1–3 mm long overall. Lateral lemma awns absent. Palea 1 length of lemma, 2 -veined. Palea keels smooth or scaberulous, eciliate, adorned above.

Flower and Fruit. Anthers 3, 0.5–1 mm long. Ovary glabrous. Caryopsis with adherent pericarp, oblong, 1.5 mm long, glabrous. Hilum linear.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. New South Wales.

TDWG4. Coast, Tablelands.

Echinopogon nutans C. E. Hubbard. *Hook. Ic. Pl.* 3, sub t. 3261, p. 4 (1935).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), J.F.Veldkamp, *Poaceae* ms (*Flora Malesiana*).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia: Queensland: Moreton District, banks of Brisbane River in partial shade, Nov 1930, Hubbard 4810.

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (232), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (133, Fig. 20), A.Wilson (ed.), *Flora of Australia*, Vol 44A. *Poaceae* (2009) (225, Fig 31as var. *nutans*), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. nuto, nod. Inflorescence branches slender, bending under the weight of the spikelets.

Classification. Subfamily Pooideae. Tribe: Poeae.

Habit, Vegetative Morphology. Perennial, culms solitary or caespitose. Rhizomes elongated. Culms erect or geniculately ascending, 30–70 cm long, 4–8 -noded. Culm-internodes retrorsely scabrous. Lateral branches lacking. Leaf-sheaths retrorsely scabrous, glabrous on surface or pilose. Ligule an eciliate membrane, 1 mm long, truncate. Leaf-blades 2–15 cm long, 3–6 mm wide. Leaf-blade surface smooth or scaberulous, glabrous. Leaf-blade apex acuminate, mucous or pungent.

Inflorescence. Inflorescence a panicle. Peduncle nodding, smooth or scaberulous above. Panicle spiciform or capitate, oblong or ovate, 2.5–5 cm long, 0.8–2 cm wide. Spikelets appressed, solitary. Fertile spikelets pedicelled. Pedicels present, oblong.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with a barren rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or lanceolate, laterally compressed, 5–7 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus evident, bearded. Floret callus hairs 1 mm long.

Glumes. Glumes persistent, similar, reaching apex of florets, thinner than fertile lemma. Lower glume lanceolate, 5–7 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous, eciliate or ciliolate. Lower glume lateral veins absent. Lower glume apex attenuate. Upper glume lanceolate, 5–7 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous, eciliate or ciliolate. Upper glume lateral veins absent. Upper glume apex attenuate.

Florets. Fertile lemma lanceolate, 5–7 mm long, cartilaginous, keeled, 5 -veined, more than 3-veined. Lemma apex dentate, 2 -fid, acute, awned, 3 -awned. Principal lemma awn from a sinus, 6–14 mm long overall. Lateral lemma awns present, arising on apex of lobes, 1–2 mm long, shorter than principal. Palea 1 length of lemma, 2 -veined. Palea keels ciliolate, adorned above.

Flower and Fruit. Anthers 3, 1 mm long. Ovary pubescent on apex. Caryopsis with adherent pericarp, 3 mm long, hairy at apex. Hilum linear.

Distribution (TDWG). Continent. Tropical Asia, Australasia.

Country /Province/State. Papuaia. New Guinea. **Australia.** Queensland, New South Wales.

TDWG4. Central, South East. Coast, Tablelands.

Echinopogon ovatus (Forst.) Beauv. *Agrost.* 42. t. 9. (1812).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000), J.F.Veldkamp, *Poaceae* ms (*Flora Malesiana*).

TYPE from New Zealand. **Basionym or Replaced Name:** *Agrostis ovata* G. Forst., *Fl. Ins. Austr.* 40 (1786)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: Forster s.n., New Zealand (GOET).

Illustrations (Books): E.E.Henty, *A Manual of the Grasses of New Guinea* (1969) (65, Pl. 22), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (220, Fig. 166), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (149, Pl. 45), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (490, Fig. 95), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (232), J.C.Tothill, & J.B.Hacker. *The grasses of southern Queensland* (1983) (208), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (133, Fig. 20), A.Wilson (ed.), *Flora of Australia*, Vol 44A. *Poaceae* (2009) (225, Fig 31).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): L. ovum, egg; -ata, possessing. Inflorescences, spikelets, or leaf-blades ovate in outline.

Classification. Subfamily Pooideae. Tribe: Poeae.

Habit, Vegetative Morphology. Perennial, culms solitary or caespitose, clumped loosely. Rhizomes elongated. Culms geniculately ascending, 15–70 cm long, 3–7 -noded. Culm-internodes retrorsely scabrous. Lateral branches lacking. Leaf-sheaths smooth or retrorsely scabrous, glabrous on surface or pilose. Ligule an eciliate membrane, 2 mm long, truncate. Leaf-blades spreading or reflexed, linear or lanceolate, 1.5–16 cm long, 2–8 mm wide. Leaf-blade surface smooth or scaberulous, glabrous. Leaf-blade margins scaberulous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Peduncle straight, retrorsely scabrous above. Panicle capitate, oblong or ovate, 0.8–5 cm long, 1–2.5 cm wide. Spikelets spreading, solitary. Fertile spikelets pedicelled. Pedicels present, oblong.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with a barren rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both

fertile or the upper sterile. Spikelets oblong, laterally compressed, 3.5–5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, reaching apex of florets, thinner than fertile lemma. Lower glume lanceolate, 3.5–5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous, ciliolate. Lower glume lateral veins absent. Lower glume apex obtuse or acute. Upper glume lanceolate, 3.5–5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous, ciliolate. Upper glume lateral veins absent. Upper glume apex obtuse or acute.

Florets. Fertile lemma lanceolate, 3.5–5 mm long, cartilaginous, keeled, 5–7 -veined, more than 3-veined. Lemma apex entire, emarginate, awned, 1 -awned. Principal lemma awn apical, 3–15 mm long overall. Lateral lemma awns absent. Palea 1 length of lemma, 2 -veined. Palea keels ciliolate, adorned above.

Flower and Fruit. Anthers 3, 1–1.5 mm long. Ovary pubescent on apex. Caryopsis with adherent pericarp, oblong, 2–2.5 mm long, hairy at apex. Hilum linear.

N = 21 (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe, Tropical Asia, Australasia.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Malesia, Papuaia.** Lesser Sunda Is. New Guinea. **Australia, New Zealand.** Western Australia, South Australia, Queensland, New South Wales, A.C.T., Victoria, Tasmania, Lord Howe-Norfolk Is. Chatham Is, New Zealand North I, New Zealand South I.

TDWG4. Eremean, South-West. Southern. North, Central, South East. Coast, Tablelands, Western Slopes, Western Plains.

Echinopogon phleoides C. E. Hubbard. *Hook. Ic. Pl.* 3, sub t. 3261, p. 10 (1935).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: New South Wales: Hardinge County: Wandsworth, 15 mi N.W. of Guyra, in white soil from quartz orphyry, 1080 m., Dec 1931, *McKie* 732.

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (233), A.Wilson (ed.), *Flora of Australia*, Vol 44A. *Poaceae* (2009) (225, Fig 31), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Derivation (Clifford & Bostock 2007): Gk. -oides, like. Inflorescence a spike-like panicle as for *Phleum*.

Classification. Subfamily Pooideae. Tribe: Poeae.

Habit, Vegetative Morphology. Perennial. Rhizomes elongated. Culms erect or geniculately ascending, 25–40 cm long, 2–4 -noded. Leaf-sheaths smooth or scaberulous, glabrous on surface or pubescent. Ligule an eciliate membrane, 3 mm long, truncate. Leaf-blades 4–18 cm long, 2–4 mm wide. Leaf-blade surface hispid, hairy abaxially. Leaf-blade apex obtuse, callose.

Inflorescence. Inflorescence a panicle. Peduncle retrorsely scabrous above. Panicle spiciform, oblong, 1.5–3 cm long, 0.6–0.8 cm wide. Primary panicle branches accrescent to a central axis, with evident branchlets on axis. Panicle axis pubescent. Spikelets spreading, solitary. Fertile spikelets pedicelled. Pedicels present, oblong, pubescent.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with a barren rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3.5–4 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume lanceolate, 3.5–4 mm long, 1 length of upper glume, scarios, 1-keeled, 1 -veined. Lower glume primary vein spinulose. Lower glume lateral veins absent. Lower glume surface puberulous. Lower glume apex acute. Upper glume lanceolate, 3.5–4 mm long, 1.1–1.3 length of adjacent fertile lemma, scarios, 1-keeled, 1 -veined. Upper glume primary vein spinulose. Upper glume lateral veins absent. Upper glume surface puberulous. Upper glume apex acute.

Florets. Fertile lemma elliptic, 3 mm long, cartilaginous, keeled, 5–7 -veined, more than 3-veined. Lemma apex entire or dentate, 2 -fid, acute, mucronate. Principal lemma awn apical or from a sinus, 0.2–1.5 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels eciliate or ciliolate. Rhachilla extension 0.1 length of fertile floret, glabrous.

Flower and Fruit. Anthers 3, 0.8–1 mm long. Caryopsis with adherent pericarp. Hilum linear.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. **Australia.** New South Wales.

TDWG4. Tablelands.

Ectrosia agrostoides Benth. *Fl. Austral.* 7: 634 (1878).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)*, W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Armstrong s.n.*, Australia: N. Australia, Port Essington

ST: *Drummond s.n.*, Australia: W. Australia (K).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (430, Fig 77).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): Gk. -oides, resembling. Resembling *Agrostis* in some respect, usually the form of the inflorescence.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose, clumped loosely. Culms erect or geniculately ascending, slender, 10–40 cm long, 1–3 -noded. Culm-internodes smooth, distally glabrous. Lateral branches sparse. Leaf-sheaths loose, striately veined, glabrous on surface or hirsute, with tubercle-based hairs, outer margin glabrous or hairy. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs. Leaf-blades erect, filiform, convolute, 1–9 cm long, 1–2 mm wide, stiff. Leaf-blade surface scaberulous, rough adaxially, glabrous or pilose, sparsely hairy. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle. Panicle open, linear or lanceolate, loose, 2–12 cm long, 0.5–2.2 cm wide. Primary panicle branches appressed or ascending, simple, 2–4.5 cm long. Panicle axis scabrous, glabrous. Panicle branches capillary, scaberulous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, linear, 0.5–1.5 mm long, glabrous or pubescent.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or lanceolate, laterally compressed, 2–3 mm long, breaking up at maturity, disarticulating above glumes but not between florets.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1–2 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1–2 mm long, 0.66–1.1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma oblong, dorsally straight along back, 1.5–1.8 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma apex emarginate, mucronate or awned, 1 -awned. Principal lemma awn 0.2–1 mm long overall. Palea 1 mm long, 2 -veined. Palea keels ciliolate. Apical sterile florets 3–4 in number, barren, lanceolate or rudimentary, 1–1.5 mm long. Apical sterile lemmas awned, 1 -awned. Apical sterile lemma awns 3–6 mm long.

Flower and Fruit. Anthers 3, 0.2–0.3 mm long. Caryopsis with adherent pericarp, 0.6 mm long.

Distribution (TDWG). Continent. Tropical Asia, Australasia, Pacific.

Country /Province /State. **Malesia, Papuaia.** Moluccas. New Guinea. **Australia.** Western Australia, Northern Territory, Queensland. **Southwestern Pacific.** Caroline Is.

TDWG4. Kimberley. Darwin & Gulf. North.

Ectrosia anomala C. E. Hubbard. *Hook. Ic. Pl.* 4, sub t. 3312, p. 14 (1936).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: Kay 1935, Australia: Queensland: Burke Dist.: Normanton, in open sandy channels on ridge side, 3–9 m.

ST: Blake 9024, Australia: Queensland: Burke Dist.: Normanton, in open shallow sandy channels on ridge side, 3–9 m.

Illustrations (Books): No illustration found (BKS).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): Gk. anomalos, irregular. Diverging from the normal, often with respect to number of lemmas in the spikelet or otherwise unusual for the genus in some respect.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, 10–30 cm long, 2 -noded. Leaf-sheaths glabrous on surface or pilose. Ligule a fringe of hairs. Leaf-blades convolute, 3–10 cm long, 2–3 mm wide, stiff. Leaf-blade surface glabrous or pilose, moderately hairy.

Inflorescence. Inflorescence a panicle. Panicle contracted, interrupted, 2–10 cm long, contracted about primary branches. Primary panicle branches spreading, 1–2 cm long, bearing spikelets almost to the base. Panicle branches pilose. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, linear, ciliate.

Fertile Spikelets. Spikelets comprising 2–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 6–9 mm long, 2–3 mm wide, breaking up at maturity, disarticulating above glumes but not between florets. Rhachilla internodes zig-zag.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 2.5–3 mm long, 0.8–0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex obtuse or acute. Upper glume ovate, 3–3.3 mm long, 0.6–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1–3 -veined. Upper glume primary vein scaberulous. Upper glume margins ciliate. Upper glume apex obtuse or acute.

Florets. Fertile lemma elliptic, lanceolate in profile, 3.5–5.5 mm long, coriaceous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scabrous. Lemma surface asperulous. Lemma apex acuminate or setaceously acuminate. Palea bowed outwards, 0.4–0.6 length of lemma, 2 -veined. Palea keels winged, narrowly winged, ciliate. Apical sterile florets 4–6 in number, barren, separate, lanceolate, 3.5–5.5 mm long.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.4 mm long. Caryopsis with adherent pericarp, ovoid, 1 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland.

TDWG4. North.

Ectrosia appressa S. T. Blake. *Univ. Queensl. Papers, Dept. Biol.*, 1 No. 18, 1 (1941).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: *S.T. Blake 13685*, 6 Apr 1938, Australia: Queensland: Cook Dist. (US-1819381, US-3105001).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. appressed. Lateral branches of panicle held erect.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose, clumped loosely. Culms erect or geniculately ascending, slender, 25–50 cm long, 2–4 -noded. Culm-internodes distally glabrous. Lateral branches lacking. Leaf-sheaths loose, striately veined, glabrous on surface or hirsute, with tubercle-based hairs, outer margin hairy. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs. Leaf-blades flat or involute, 7–13 cm long, 2–4 mm wide. Leaf-blade surface scaberulous, rough adaxially, pilose, hairy adaxially. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle. Peduncle pilose above. Panicle contracted, linear, continuous or interrupted, 7–20 cm long, 1.5–3 cm wide. Primary panicle branches appressed, 1–2 cm long. Panicle axis terete, glabrous. Panicle branches scabrous, glabrous or pilose. Spikelets appressed, solitary. Fertile spikelets pedicelled. Pedicels present, linear, 0.5–1.2 mm long, ciliate.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 9–11 mm long, 1.2–1.5 mm wide, breaking up at maturity, disarticulating above glumes but not between florets. Rhachilla internodes curved, 1.5 mm long, scaberulous.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2.5–3.5 mm long, 0.75–1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex obtuse or acute. Upper glume lanceolate, 3–3.6 mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex obtuse or acute.

Florets. Fertile florets increasing in size upwards. Fertile lemma ovate, dorsally straight along back, 4.8–6.3 mm long, coriaceous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma surface smooth or asperulous. Lemma apex acute or acuminate, awned, 1 -awned. Principal lemma awn 1.3–4.7 mm long overall. Palea 1.3–2.6 mm long, 2 -veined. Palea keels ciliate. Apical sterile florets 4–5 in number, barren, rudimentary. Apical sterile lemmas awned, 1 -awned. Apical sterile lemma awns 7–9 mm long.

Flower and Fruit. Anthers 3, 0.3 mm long. Caryopsis with adherent pericarp, ovoid, isodiametric, 1.4 mm long, obtuse.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland.

TDWG4. Darwin & Gulf. North.

Ectrosia blakei C. E. Hubbard. *Hook. Ic. Pl.* 4, sub t. 3312, p. 4 (1936).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: *S.T. Blake 9104*, 22 May 1935, Australia: Queensland: Burke Dist. (US-3104999).

Illustrations (Books): No illustration found (BKS).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): in honor of Stanley Thatcher Blake (1911–1973), Queensland botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose, clumped loosely. Culms erect or geniculately ascending, slender, 10–45 cm long, 1–4 -noded. Culm-internodes distally glabrous or pubescent. Lateral branches ample. Leaf-sheaths glabrous on surface or pilose, outer margin hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades flat or involute or convolute, 5–10 cm long, 1–2.5 mm wide. Leaf-blade surface scaberulous, rough adaxially, pubescent or pilose, sparsely hairy. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle. Peduncle straight or nodding. Panicle open, oblong, 5–10 cm long, 4–8 cm wide. Primary panicle branches spreading or reflexed, 1 -nate, simple, 0.5–1.5 cm long, bearing 1–7 fertile spikelets on each lower branch. Panicle axis pubescent or pilose. Panicle branches pubescent. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, linear, 0.8–2 mm long, pubescent.

Fertile Spikelets. Spikelets comprising 5–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 15–20 mm long, 2 mm wide, breaking up at maturity, disarticulating above glumes but not between florets. Rhachilla internodes 1–2 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 3.5–4.5 mm long, 0.75–0.9 length of upper glume, membranous, 1-keeled, 3 -veined. Lower glume apex acute. Upper glume lanceolate, 4.5–5 mm long, 0.5–0.6 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined.

Florets. Fertile florets appressed to rhachilla, increasing in size upwards, with the lowest dissimilar. Lowest fertile lemma ovate, 0.8 length of adjacent lemma, mucous. Fertile lemma lanceolate, dorsally straight along back, 7–11 mm long, coriaceous, keeled, 3(–5) -veined, 0–3 -veined or more than 3-veined. Lemma midvein scaberulous. Lemma surface asperulous, rough on veins. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 1–18 mm long overall. Palea bowed outwards, 3.5–4.5 mm long, 2 -veined. Palea keels winged, narrowly winged, ciliate. Palea apex obtuse. Apical sterile florets 4–5 in number, barren, separate, rudimentary. Apical sterile lemmas awned, 1 -awned. Apical sterile lemma awns 20–34 mm long.

Flower and Fruit. Anthers 3, 0.2–0.3 mm long. Caryopsis with adherent pericarp, 1.5–2 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory, Queensland.

TDWG4. Darwin & Gulf. North.

Ectrosia confusa C. E. Hubbard. *Hook. Ic. Pl.* 4, sub t. 3312, p. 14 (1936).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Queensland, between Norman and Gilbert rivers, *Gulliver s.n.*.

Illustrations (Books): No illustration found (BKS).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. confused. Likely to be mistaken for another species.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose, clumped loosely. Culms erect or geniculately ascending, slender, 15–30 cm long, 2–3 -noded. Culm-internodes distally glabrous. Lateral branches lacking or sparse. Leaf-sheaths loose, striately veined, glabrous on surface or pilose, with tubercle-based hairs. Ligule a fringe of hairs. Leaf-blades flat or convolute, 4–8 cm long, 1–2 mm wide, stiff. Leaf-blade surface glabrous or pilose, sparsely hairy. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate, continuous or interrupted, loose or effuse, 3–10 cm long, 1–2.5 cm wide. Primary panicle branches spreading or reflexed, 1 -nate, simple, 1–1.5 cm long. Panicle axis glabrous or pilose. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, linear, ciliate.

Fertile Spikelets. Spikelets comprising 2–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or obovate, laterally compressed, 4–5 mm long, breaking up at maturity, disarticulating above glumes but not between florets. Rhachilla internodes 1 mm long, scaberulous.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2–3 mm long, 0.75–0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 2.5–3.5 mm long, 0.6–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined. Upper glume primary vein scaberulous. Upper glume apex acute.

Florets. Fertile florets increasing in size upwards, with the lowest dissimilar. Lowest fertile lemma 0.75 length of adjacent lemma, lobed (emarginate), awned (1–1.4mm). Fertile lemma ovate, dorsally straight along back, 3–6 mm long, coriaceous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma surface scaberulous. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 1–3 mm long overall. Palea bowed outwards, 1.5–2 mm long, 2 -veined. Palea keels scaberulous, adorned above. Apical sterile florets 4–5 in number, barren, rudimentary. Apical sterile lemmas awned, 1 -awned. Apical sterile lemma awns 6 mm long.

Flower and Fruit. Anthers 3, 0.3–0.4 mm long. Caryopsis with adherent pericarp, oblong, 1 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory, Queensland.

TDWG4. Darwin & Gulf. North.

Ectrosia danesii Domin. *Biblioth. Bot.* 85: 406 (1915).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: North Queensland: Normanto, *Dr. J. Danes*.

Illustrations (Books): No illustration found (BKS), K.Domin, *Bibliotheca Botanica* 85 (1915) (Pl.15).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): in honor of Jiri Vadav Danes (1880–1928) Czech geologist who collected in Australia.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose, clumped loosely. Culms erect or geniculately ascending, slender, 6–30 cm long, 2–5 -noded. Culm-internodes distally glabrous or pilose. Lateral branches ample. Leaf-sheaths smooth, glabrous on surface, outer margin glabrous or hairy. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs. Leaf-blades flat or convolute, 4–8.5 cm long, 1.5–3 mm wide. Leaf-blade surface scaberulous, rough adaxially. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle, embraced at base by subtending leaf. Panicle open, oblong, dense, 3–5 cm long, 2–4 cm wide. Primary panicle branches spreading, 0.5–1.5 cm long, bearing 1–3 fertile spikelets on each lower branch. Panicle axis pilose. Panicle branches pilose. Spikelets spreading, solitary. Fertile spikelets pedicelled. Pedicels present, linear, 0.5–2 mm long.

Fertile Spikelets. Spikelets comprising 6–13 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 14–30 mm long, 1–2 mm wide, breaking up at maturity, disarticulating above glumes but not between florets or below each fertile floret. Rhachilla internodes 1.5 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.7–2 mm long, 0.5–0.7 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex obtuse or acute. Upper glume lanceolate, 2.5–3.5 mm long, 0.4–0.5 length of adjacent fertile lemma, membranous, 1-keeled, 1–3 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent or distinct. Upper glume apex obtuse or acute.

Florets. Fertile florets increasing in size upwards, with the lowest dissimilar. Lowest fertile lemma lanceolate or oblong, 0.9 length of adjacent lemma, mucronate. Fertile lemma lanceolate, dorsally straight along back, 4.5–8 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma surface asperulous. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 0.5–5 mm long overall. Palea 2–3 mm long, 2 -veined. Palea keels winged, narrowly winged, ciliolate, adorned above. Apical sterile florets 3–4 in number, barren, separate, rudimentary. Apical sterile lemmas awned, 1 -awned. Apical sterile lemma awns 6–12 mm long.

Flower and Fruit. Anthers 3, 0.2–0.4 mm long. Caryopsis with adherent pericarp, 1–1.5 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland.

TDWG4. Kimberley. Darwin & Gulf. North, Central.

Ectrosia gulliveri F. Muell. *Fragm.* 8: 201 (1873).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: inter fluvios Norman's et Gilbert's river, *T. Gulliver s.n.*.

Illustrations (Books): No illustration found (BKS).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.Domin, *Bibliotheca Botanica* 85 (1915) (408, Fig.94 as *E. squarrolosa*).

Derivation (Clifford & Bostock 2007): in honor of Thomas A. Gulliver botanical collector in northern Australia.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 15–40 cm long, 2–4 -noded. Leaf-sheaths glabrous on surface or pilose. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs. Leaf-blades flat or convolute, 5–12 cm long, 1–1.5 mm wide, stiff. Leaf-blade surface pilose, moderately hairy, hairy adaxially. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle contracted, interrupted, 3–15 cm long, 1–4 cm wide, contracted about primary branches. Primary panicle branches spreading or reflexed, 0.5–2 cm long, bearing spikelets almost to the base. Panicle branches pilose. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, linear, ciliate.

Fertile Spikelets. Spikelets comprising 1–4 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets, or of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–5.5 mm long, breaking up at maturity, disarticulating above glumes but not between florets. Rhachilla internodes pubescent. Floret callus pubescent, acute.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.5–2.5 mm long, 0.75–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume margins ciliate. Lower glume apex acute or acuminate. Upper glume lanceolate, 2–3 mm long, 0.6–0.7 length of adjacent fertile lemma, membranous, 1-keeled, 1–3 -veined. Upper glume primary vein scaberulous. Upper glume margins ciliate. Upper glume apex acute or acuminate.

Florets. Fertile florets recurved at tip. Fertile lemma oblong, 3–5 mm long, coriaceous, keeled, 5–7 -veined, more than 3-veined. Lemma midvein ciliate. Lemma lateral veins ribbed. Lemma surface pubescent. Lemma margins ciliate. Lemma apex acuminate or setaceously acuminate, mucronate. Palea 2 -veined. Palea keels winged, narrowly winged, ciliate. Apical sterile florets 3–4 in number, barren, separate, rudimentary. Apical sterile lemmas awned. Apical sterile lemma awns 3–4 mm long.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.3–0.5 mm long. Caryopsis with adherent pericarp, 1 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland.

North.

Ectrosia lasioclada (Merrill) S.T.Blake. *Proc. Roy.Soc.Qld.* 84: 65 (1973).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online (as *Ectrosiopsis*), U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)* (as *Ectrosia*), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010) (as *Ectrosiopsis*).

TYPE from Philippines. **Basionym or Replaced Name:** *Eragrostis lasioclada* Merr., *Philipp. J. Sci.* 1(Suppl.): 382 (1906). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: *E.D. Merrill* 461, 13 Dec 1902, Philippines: Palawan I., Palawan Prov. (L, US-435431). CS\Collection no. publ. as 416.

Recent Synonyms: *Ectrosiopsis lasioclada* (Merrill) Jansen, *Reinwardtia*, 2: 268 (1953).

Illustrations (Books): No illustration found (BKS).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002); (as *Ectrosia lasioclada*).

Derivation (Clifford & Bostock 2007): Gk. lasios, shaggy; klados, branch. Leaf-sheaths hairy.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms 30–70 cm long. Ligule a fringe of hairs. Leaf-blades 10–30 cm long, 1–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle contracted, oblong or ovate, interrupted, 5–20 cm long. Panicle branches scaberulous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 10–25 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets linear, laterally compressed, 5–18 mm long, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes 0.5 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1–1.5 mm long, 0.66–1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1–1.5 mm long, 0.5 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets free at tip, increasing in size upwards. Fertile lemma ovate, lanceolate in profile, 2–3 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma apex acuminate, mucous or awned, 1 -awned. Principal lemma awn 0–1.5 mm long overall. Palea 0.5 length of lemma, 2 -veined. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3. Caryopsis with adherent pericarp, ellipsoid.

Distribution (TDWG). Continent. Tropical Asia, Australasia, Pacific.

Country /Province /State. **Malesia, Papuasia.** Lesser Sunda Is, Philippines, Sulawesi. New Guinea West Papua (Irian Jaya). New Guinea. **Australia.** Western Australia, Northern Territory, Queensland. **Northwestern Pacific.** Caroline Is.

TDWG4. Kimberley, Darwin & Gulf, Central Australia. North, Central, Inland.

Ectrosia laxa S. T. Blake. *Univ. Queensl. Papers, Dept. Biol.*, 1 No. 18, 1 (1941).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: S.T. Blake 13688, 6 Apr 1938, Australia: Queensland: Cook Dist. on Wrotham Park, ca. 50 miles north-west of Mungana, on grey sand (US-1819382, US-3105000).

Illustrations (Books): No illustration found (BKS).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. loose. Inflorescence much branched either as a single panicle or from branching of the culms.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose, clumped loosely. Culms erect or geniculately ascending, slender, 30–60 cm long, 1–5 -noded. Culm-internodes distally glabrous. Lateral branches lacking. Leaf-sheaths loose, striately veined, pilose, with tubercle-based hairs. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs. Leaf-blades 7–15 cm long, 1–2.6 mm wide. Leaf-blade surface scaberulous, rough adaxially, pilose, hairy on both sides. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Peduncle pilose above. Panicle open, oblong, 7–15 cm long, 6 cm wide. Primary panicle branches ascending, 2–3.5 cm long. Panicle axis angular, scaberulous, pilose. Panicle branches flexuous, scabrous, pilose. Spikelets spreading, solitary. Fertile spikelets pedicelled. Pedicels present, linear, 1–2 mm long, ciliate.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 8–11 mm long, 1.3–1.5 mm wide, breaking up at maturity, disarticulating above glumes but not between florets. Rhachilla internodes curved, 1–1.7 mm long, scaberulous.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2–3 mm long, 0.66–0.75 length of upper glume, membranous, 1-keeled, 1–3 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent or obscure. Lower glume apex acuminate. Upper glume lanceolate, 3–4 mm long, 0.66 length of adjacent fertile lemma, membranous, 1-keeled, 1–3 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent or distinct. Upper glume apex cuspidate.

Florets. Fertile florets increasing in size upwards, with the lowest dissimilar. Lowest fertile lemma 0.75–0.9 length of adjacent lemma, lobed (emarginate), mucronate. Fertile lemma lanceolate, dorsally straight along back, 6.3–10.7 mm long, coriaceous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma surface smooth or asperulous. Lemma apex acute or acuminate, awned, 1 -awned. Principal lemma awn 2–4.7 mm long overall. Palea 2.8 mm long, 2 -veined. Palea keels scaberulous, ciliate. Palea surface asperulous. Apical sterile florets 7–8 in number, barren, rudimentary. Apical sterile lemmas awned, 1 -awned. Apical sterile lemma awns 10–13 mm long.

Flower and Fruit. Anthers 3, 0.4 mm long. Caryopsis with adherent pericarp, lanceolate, 1.1–1.7 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. **Australia.** Northern Territory, Queensland.

TDWG4. Darwin & Gulf. North.

Ectrosia leporina R. Br. *Prod.* 186 (1810).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)*.

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Littora Novae Hollandiae intra Tropicum.

Illustrations (Books): E.E.Henty, *A Manual of the Grasses of New Guinea* (1969) (74, Pl. 26), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), J.C.Tothill, & J.B.Hacker. *The grasses of southern Queensland* (1983) (210).

Illustrations (Journals): *Hooker's Icones Plantarum* (t.3312 (1936)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): *L. lepus*, hare, -ina; belonging to. Inflorescence resembles a hare's tail.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms 20–70 cm long. Leaves mostly basal. Ligule a fringe of hairs. Leaf-blades 5–12 cm long, 1–1.5 mm wide. Leaf-blade apex attenuate, filiform.

Inflorescence. Inflorescence a panicle. Panicle contracted, interrupted, 5–15 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, linear, bearing a few hairs.

Fertile Spikelets. Spikelets comprising 1–2 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets, or of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 2–3 mm long, breaking up at maturity, disarticulating above glumes but not between florets.

Glumes. Glumes deciduous, similar, shorter than spikelet, similar to fertile lemma in texture. Lower glume lanceolate, 1 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 1.5 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma oblong, 2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex emarginate, awned, 1 -awned. Principal lemma awn 2 mm long overall. Palea 0.66 length of lemma, 2 -veined. Palea keels scabrous. Apical sterile florets 2–5 in number, barren, separate, linear, 0.5–1.5 mm long. Apical sterile lemmas awned, 1 -awned. Apical sterile lemma awns 3–8 mm long.

Flower and Fruit. Anthers 3, 0.1 mm long. Caryopsis with adherent pericarp, ellipsoid.

Distribution (TDWG). Continent. Tropical Asia, Australasia, Pacific.

Country /Province /State. Malesia, Papuaasia. Sulawesi. New Guinea West Papua (Irian Jaya). New Guinea. **Australia.** Western Australia, Northern Territory, Queensland. **Northwestern Pacific.** Caroline Is.

TDWG4. Kimberley. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. North, Central, South East, Inland.

Ectrosia nervilemma (B.K. Simon) Nightingale. *Flora of Australia* 44B:461 (2005).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002) (as *Planichloa*).

TYPE from Australia. **Basionym or Replaced Name:** *Planichloa nervilemma* B.K. Simon, *Austrobaileya* 2(3): 212 (1986). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Queensland: Cook Distr.: ca. 20 km SE of Laura on the Peninsular Development Road, 15:39'S, 144:33'E, 25 Apr 1983, *J.R. Clarkson 4679* (HT: BRI; IT: CANB, DNA, K, NSW, PERTH, QRS).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (369, Fig 66), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002) (as *Planichloa*).

Derivation (Clifford & Bostock 2007): *L. nervus*, nerve; Gk. lemma, husk. Lemma nerves sharply defined.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose, clumped loosely. Culms erect or geniculately ascending, slender, 12–40 cm long, 1–3 -noded. Culm-internodes distally glabrous. Lateral branches lacking. Leaf-sheaths loose, striately veined, pilose, with tubercle-based hairs. Ligule a fringe of hairs, 0.2–0.3 mm long. Leaf-blades flat or conduplicate, 2–10 cm long, 1–4 mm wide. Leaf-blade surface ribbed, pilose, with tubercle-based hairs. Leaf-blade apex acute or acuminate.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, oblong, 6–12 cm long, 1.5–3 cm wide. Primary panicle branches 0.4–0.8 cm long. Panicle branches angular, scaberulous, pilose, with tubercle-based hairs. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, linear, 0.5–1 mm long, pubescent.

Fertile Spikelets. Spikelets comprising 2–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets ovate, laterally compressed, 5–11 mm long, 3–6 mm wide, breaking up at maturity, disarticulating above glumes but not between florets.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2.5–4 mm long, 0.75–0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 3–4.5 mm long, 0.9–1 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined. Upper glume primary vein scaberulous. Upper glume apex acuminate.

Florets. Fertile florets increasing in size upwards. Fertile lemma lanceolate, dorsally straight along back, 3–5 mm long, cartilaginous, yellow or dark green, mottled with last colour (on veins), keeled, winged on keel, 5–7 -veined, more than 3-veined. Lemma midvein scaberulous. Lemma lateral veins prominent. Lemma apex acute or acuminate, mucicous or mucronate or awned, 1 -awned. Principal lemma awn 0–2 mm long overall. Palea bowed outwards, 2–3 mm long, 0.5 length of lemma, membranous, 2 -veined. Palea keels winged, narrowly winged, scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, red or purple. Caryopsis with adherent pericarp. Embryo 0.5 length of caryopsis.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland.

TDWG4. North.

Ectrosia ovata Nightingale. *Fl. Austral.* 43:376 (2002).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Queensland: 1 km from the Musgrave to Lakefield road on the track to Low Lake, Lakefield National Park, Cook District, 8 Jul 1987, J.R.Clarkson & B.K.Simon 7070 (HT: NSW; IT: BRI, K, L, MBA, QRS).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (433, Fig 78).

Derivation (Clifford & Bostock 2007): *L. ovum*, egg; *-ata*, possessing. Inflorescences, spikelets, or leaf-blades in outline the shape of an egg in longitudinal section.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms (16–)30–80 cm long. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs. Leaf-blades 0.8–4 mm wide. Leaf-blade surface glabrous or pilose, hairy on both sides.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, 3.5–7 cm long. Primary panicle branches ascending or spreading, distant, 1–7 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1–3 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets, or of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, (5–)8–15 mm long, 1.3–3 mm wide, breaking up at maturity, disarticulating above glumes but not between florets.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2–3.5 mm long, 0.66 length of upper glume, membranous, 1-keeled. Upper glume lanceolate, 3.1–5.5 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled.

Florets. Fertile florets increasing in size upwards. Fertile lemma lanceolate to ovate, dorsally convex along back or straight along back, 3.4–5(–6) mm long, coriaceous, keeled, 3–5(–7) -veined, 0–3 -veined or more than 3-veined. Lemma midvein scaberulous. Lemma surface scaberulous, glabrous. Lemma apex acute or acuminate, awned, 1 -awned. Palea 0.5–0.66 length of lemma, 2 -veined. Palea keels ciliolate. Palea surface smooth or scaberulous. Apical sterile florets 5 in number, barren, rudimentary. Apical sterile lemmas awned, 1 -awned.

Flower and Fruit. Caryopsis with adherent pericarp, 0.7–1 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland.

TDWG4. North.

Ectrosia scabrida C. E. Hubbard. *Hook. Ic. Pl.* 4, sub t. 3312, p. 6 (1936).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: between Fitzaurice and Victoria Rivers, Oct 1955, *Mueller*.

Illustrations (Books): No illustration found (BKS).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. rough*. Plants in part or totally rough to the touch.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose, clumped loosely. Culms erect or geniculately ascending, slender, 6–40 cm long, 2–3 -noded. Lateral branches lacking. Leaf-sheaths smooth, glabrous on surface. Leaf-sheath oral hairs pubescent or ciliate. Ligule a fringe of hairs. Leaf-blades flat or convolute, 6–12 cm long, 1.5–3 mm wide. Leaf-blade surface scaberulous, rough adaxially, glabrous. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle. Peduncle glabrous or pubescent above. Panicle contracted or spiciform, oblong, interrupted, 2.5–9 cm long, 2.5–3 cm wide. Primary panicle branches appressed or spreading, 0.5–1.5 cm long. Panicle axis glabrous or pilose. Panicle branches pubescent or pilose. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, linear, 0.5 mm long, pubescent or ciliate.

Fertile Spikelets. Spikelets comprising 2–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–11 mm long, 1–1.5 mm wide, breaking up at maturity, disarticulating above glumes but not between florets. Rhachilla internodes 1.5 mm long, scaberulous.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.7–2.3 mm long, 0.7–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 2.4–3 mm long, 0.66–0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1–3 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent or distinct. Upper glume apex acute.

Florets. Fertile florets divergent, increasing in size upwards, with the lowest dissimilar. Lowest fertile lemma oblong, 0.9 length of adjacent lemma, mucronate. Fertile lemma lanceolate, dorsally straight along back, 3.5–4.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma surface scabrous. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 1.5–5 mm long overall. Palea 2–5 mm long, 2 -veined. Palea keels ciliolate. Apical sterile florets 3–6 in number, barren, separate, rudimentary. Apical sterile lemmas awned, 1 -awned. Apical sterile lemma awns 5–10 mm long.

Flower and Fruit. Anthers 3, 0.2–0.3 mm long. Caryopsis with adherent pericarp, oblong, 1–1.8 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland.

TDWG4. Kimberley, Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. North.

Ectrosia schultzii Benth. *Fl. Austral.* 7: 633 (1878).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *F. Mueller s.n.*, Australia: between Maurice and Victoria rivers

ST: *Schultz 287*, Australia: Fort Darwin.

Illustrations (Books): C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (90, Pl 25), J.R.Wheeler et al, *Flora of the Kimberley Region* (1992), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (430, Fig 77 as var. *annua*), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): in honor of Frederick Schultze (fl. 1869) who collected in northern Australia.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 25–60 cm long, 2–3 -noded. Lateral branches lacking. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs lacking or ciliate. Ligule a fringe of hairs. Leaf-blades erect, flat or involute or convolute, 10–23 cm long, 2–3.5 mm wide, stiff. Leaf-blade surface scaberulous, rough adaxially, glabrous, hairless except near base. Leaf-blade apex attenuate, filiform.

Inflorescence. Inflorescence a panicle. Panicle contracted, oblong, interrupted, 5–17 cm long, 1–2 cm wide. Primary panicle branches ascending or spreading, 1 -nate, 2–3 cm long. Panicle axis glabrous or pilose. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, linear, glabrous or ciliate.

Fertile Spikelets. Spikelets comprising 1–3 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets, or of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 7–9 mm long, 1–1.5 mm wide, breaking up at maturity, disarticulating above glumes but not between florets. Rhachilla internodes 1.3–2 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.3–2 mm long, 0.6–0.7 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex

acute. Upper glume lanceolate, 2–3 mm long, 0.6–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1–3 -veined. Upper glume lateral veins absent or distinct. Upper glume apex acute.

Florets. Fertile florets divergent, increasing in size upwards, with the lowest dissimilar. Lowest fertile lemma lanceolate, 0.8 length of adjacent lemma, mucronate. Fertile lemma lanceolate, dorsally straight along back, 3.5–4 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma surface asperulous. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 3–6 mm long overall. Palea 2–2.5 mm long, 2 -veined. Palea keels ciliate. Apical sterile florets 4–5 in number, barren, separate, rudimentary. Apical sterile lemmas awned, 1 -awned. Apical sterile lemma awns 10–12 mm long.

Flower and Fruit. Anthers 3, 0.3–0.5 mm long. Caryopsis with adherent pericarp, 1 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland.

TDWG4. Kimberley, Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. North, Inland.

Ehrharta barbinodis Nees. *Fl. Afr. Austr.* 215. (1839).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: South Africa, Garip R.: Drege (K iso) ; South Africa, Ebenazar: Drege sn.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (36 & 44, Fig, 4–14).

Derivation (Clifford & Bostock 2007): L. barba, beard; nodus, knot. Nodes bearded.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short, knotty. Culms 30–90 cm long, woody. Culm-nodes bearded. Lateral branches suffrutescent. Ligule an eciliate membrane. Leaf-blades 1–10 cm long, 2–4 mm wide. Leaf-blade surface pubescent.

Inflorescence. Inflorescence a panicle. Panicle open, linear or lanceolate, 3–13 cm long. Primary panicle branches simple. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 10–13 mm long, 3 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume ovate, 6–8 mm long, 0.75 length of upper glume, hyaline, without keels, 3 -veined. Lower glume apex acute. Upper glume ovate, 8–10 mm long, 0.66 length of adjacent fertile lemma, hyaline, without keels, 5 -veined. Upper glume apex acute.

Florets. Basal sterile florets 2 or more, similar or dissimilar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret elliptic, 9–11 mm long, 0.75 length of spikelet, cartilaginous, 1-keeled, 5 -veined, smooth, ciliate on midvein, ciliate on margins, acute, mucicous or awned. Awn of lower sterile floret 0–1 mm long. Lemma of upper sterile floret elliptic, 10–13 mm long, 1.3 length of lower sterile floret, cartilaginous, smooth or rugose throughout, ciliate on midvein, ciliate on margins, acute, awned. Awn of upper sterile floret 1–2 mm long. Fertile lemma elliptic, 10–13 mm long, cartilaginous, keeled, 5 -veined, more than 3-veined. Lemma apex acute. Palea 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous.

N = 12 (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Northern Cape, Western Cape.

Ehrharta brevifolia Schrad. *Goett. Gel. Ans.* 3: 2077 (1821).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Cape of Good Hope, *P. Hesse s.n.*

Illustrations (Books): A.Wilson (ed.), *Flora of Australia*, Vol 44A. *Poaceae* (2009) (372, Fig 50 as var. *brevifolia*).

Derivation (Clifford & Bostock 2007): L. brevis, short; folium, leaf. Leaf-blades shorter than those of some other species in the genus or relative to the length of the culm.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Annual. Culms erect, 18–50 cm long. Ligule an eciliate membrane. Leaf-blades flat or conduplicate, 2.5–10 cm long, 3–5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, linear or lanceolate, 6–12 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 2.7–4.5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume ovate, 0.9 length of upper glume, hyaline, without keels, 3 -veined. Lower glume apex acute. Upper glume ovate, 1 length of adjacent fertile lemma, hyaline, without keels, 5 -veined. Upper glume apex acute.

Florets. Basal sterile florets 2 or more, dissimilar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret elliptic, 0.5 length of spikelet, cartilaginous, 1-keeled, 5 -veined, smooth, ciliate on margins, obtuse. Lemma of upper sterile floret elliptic, basally auriculate, 2.5–4.2 mm long, 2 length of lower sterile floret, cartilaginous, ciliate on margins, obtuse, mucronate. Fertile lemma elliptic, 2.5–4.2 mm long, cartilaginous, keeled, 5 -veined, more than 3-veined. Lemma apex obtuse. Palea 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous.

N = 12 (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa, Australasia (*).

Country /Province /State. Southern Africa. Namibia, Northern Cape, Western Cape. **Australia.** Western Australia (*).

TDWG4. Eremean, South-West.

Ehrharta bulbosa Sm. *Pl. Ic. Ined. sub t. 33.* (1790).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: South Africa, Cape: Thunberg.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. bulbosus*, onion; -osa, abundance. Culm-bases swollen.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes elongated. Culms 35–70 cm long, swollen at the base, forming an ovoid corm. Ligule an eciliate membrane. Leaf-blades flat or convolute, 6–35 cm long, 4–8 mm wide. Leaf-blade margins unthickened.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, linear, equilateral, 7–20 cm long. Primary panicle branches appressed or ascending, 1–3 -nate, simple. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 7–10 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume ovate, 0.9 length of upper glume, hyaline, without keels, 3 -veined. Lower glume apex acuminate. Upper glume ovate, 0.33–0.5 length of adjacent fertile lemma, hyaline, without keels, 5 -veined. Upper glume apex acuminate.

Florets. Basal sterile florets 2 or more, similar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret elliptic (margins involute below), 1 length of spikelet, cartilaginous, 1-keeled, 5 -veined, prominently veined (below), rugose, rough throughout, ciliolate on midvein, obtuse, mucicous or awned. Awn of lower sterile floret 1–2 mm long. Lemma of upper sterile floret elliptic, 1 length of lower sterile floret, cartilaginous, rugose above, ciliolate on midvein, acute, mucicous or awned. Awn of upper sterile floret 1–2 mm long. Fertile lemma elliptic, 6–9 mm long, cartilaginous, shiny, keeled, 5 -veined, more than 3-veined. Lemma apex obtuse. Palea 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Western Cape.

Ehrharta calycina Sm. *Pl. Ic. Ined. t. 33.* (1789).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: E. Promontoria Bonne Spei, *Sparman s.n.* (HT: LINN); South Africa, Cape: Thunberg.

Illustrations (Books): H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (36&43, Fig. 4–12), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (124, Fig 74), L.Boulos, *Flora of Egypt* 4 (2005), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (54, Fig 19), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (15 & 20, Pl 2 & 3), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (370, Fig 73), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (233), A.Wilson (ed.), *Flora of Australia*, Vol 44A. *Poaceae* (2009) (372 7 378, Fig 50 & 51), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007).

Images: D.Sharp & B.K.Simon, *AusGrass*. *Grasses of Australia*. CD-Rom Version 1.0. (2002);, F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): Gk. kalyx, cup; -ina, belonging to. The subtending glumes are as long or longer than the lemma thereby resembling a cup.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Perennial. Rhizomes absent or elongated. Culms 30–70 cm long. Ligule a ciliolate membrane. Leaf-blades flat or convolute, 5–20 cm long, 1–10 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, linear or oblong, equilateral or nodding, 5–25 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets cuneate, laterally compressed, 4–8 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume oblong, 4–7 mm long, 1 length of upper glume, membranous, without keels, 5 -veined. Lower glume apex erose, obtuse. Upper glume oblong, 4–7 mm long, 0.9 length of adjacent fertile lemma, membranous, without keels, 5 -veined. Upper glume apex acute.

Florets. Basal sterile florets 2 or more, dissimilar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret elliptic, 4–7 mm long, 0.8–0.9 length of spikelet, coriaceous, 1-keeled, 5–7 -veined, smooth, hispidulous, acute. Lemma of upper sterile floret elliptic, basally auriculate, 4–8 mm long, 1.1–1.2 length of lower sterile floret, coriaceous, smooth, pilose, obtuse, mucronate. Fertile lemma ovate, 3.5–7.5 mm long, chartaceous, much thinner on margins, keeled, 7 -veined, more than 3-veined. Lemma surface pubescent. Lemma apex truncate. Palea 0.66 length of lemma, hyaline, 1 -veined, 1-keeled.

Flower and Fruit. Lodicules 2, obovate, membranous. Anthers 6, 3–4 mm long.

N = 12 (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe (*), Africa, Australasia (*), North America, South America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Northern Africa, Southern Africa.** Egypt (*). Namibia, Free State, Kwazulu-Natal, Lesotho, Northern Cape, Western Cape, Eastern Cape. **Australia, New Zealand.** Western Australia (*), South Australia (*), New South Wales (*), Victoria (*), Tasmania (*). New Zealand North I. Hawaii. **Southwestern USA, South-central USA.** California, Nevada. Texas. **Southern South America.** Uruguay.

TDWG4. Eremean, South-West. Southern. Coast, Western Slopes.

Ehrharta capensis Thunb. *Vet.-Acad. Handl. Stockh.* 1779, 216. (1779).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: South Africa, Cape: Thunberg.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (38, Fig. 6), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (121, Fig 73).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From the Cape of Good Hope, South Africa.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes elongated. Butt sheaths persistent and investing base of culm, with compacted dead sheaths. Culms 40–100 cm long, swollen at the base, forming an ovoid corm. Ligule an eciliate membrane. Leaf-blades 5–22 cm long, 5–10 mm wide. Leaf-blade margins cartilaginous, crenate.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, linear, equilateral, 7–23 cm long. Primary panicle branches appressed or ascending, 1–3 -nate, simple. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 8–12 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume ovate, 0.9 length of upper glume, hyaline, without keels, 3 -veined. Lower glume apex acuminate. Upper glume ovate, 0.33 length of adjacent fertile lemma, hyaline, without keels, 5 -veined. Upper glume apex acuminate.

Florets. Basal sterile florets 2 or more, similar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret elliptic (margins involute below), 1 length of spikelet, cartilaginous, 1-keeled, 5 -veined, prominently veined (below), rugose, rough below, ciliolate on midvein, obtuse, muticous or awned. Awn of lower sterile floret 1–2 mm long. Lemma of upper sterile floret elliptic, 1 length of lower sterile floret (but narrower), cartilaginous, rugose above, ciliolate on midvein, acute, muticous or awned. Awn of upper sterile floret 2–4 mm long. Fertile lemma elliptic, 7–10 mm long, cartilaginous, shiny, keeled, 5 -veined, more than 3-veined. Lemma apex obtuse. Palea 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous.

N = 12 (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Northern Cape, Western Cape.

Ehrharta delicatula Stapf. *Kew Bull.* 1897, 288 (1897).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa, Cape. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *Drege 508*, Cape Colony, Little Namaqualand, near Mieren Kasteel, among shrubs

ST: *Drege*, Tulbagh Division, Roodezand.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (36, Fig. 4).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. *delicatus*, dainty; -ula, diminutive. Small and dainty as of habit.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Annual. Culms 4.5–25 cm long. Ligule an eciliate membrane. Leaf-blades 2–16 cm long, 1–11 mm wide, flaccid.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate, 6–12 cm long. Primary panicle branches spreading. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 2–3 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume ovate, 0.9 length of upper glume, hyaline, without keels, 3 -veined. Lower glume surface glabrous or pubescent. Lower glume apex acuminate. Upper glume ovate, 0.66–0.75 length of adjacent fertile lemma, hyaline, without keels, 5 -veined. Upper glume surface glabrous or pubescent. Upper glume apex acuminate.

Florets. Basal sterile florets 2 or more, dissimilar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret elliptic, 1 length of spikelet, cartilaginous, 1-keeled, 5 -veined, rugose, obtuse. Lemma of upper sterile floret elliptic, basally auriculate, 1 length of lower sterile floret, cartilaginous, rugose throughout, obtuse. Fertile lemma elliptic, 2–3 mm long, cartilaginous, keeled, 5 -veined, more than 3-veined. Lemma apex obtuse. Palea 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous.

N = 12 (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Namibia, Northern Cape, Western Cape.

Ehrharta digyna Thunb. *Prod. Pl. Cap.* 66 (1794).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from South Africa, Cape.: T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Promontorio Bonae Spei Africes, 1772–1775, *C.P. Thunberg*.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk *dis*, twice; *gyne*, woman. Pistil has two styles.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes elongated, woody, not obviously scaly or scaly. Basal innovations intravaginal. Culms erect or decumbent, robust, 30–120 cm long, 2–5 mm diam., wiry or woody, not swollen at the base or swollen at the base, forming an ovoid corm. Culm-internodes thin-walled. Lateral branches suffrutescent. Leaves with blades commonly suppressed, transferring photosynthetic function to sheath and culm. Ligule a ciliolate membrane, 1 mm long. Leaf-blades 0–3 cm long, 1 mm wide.

Inflorescence. Inflorescence a panicle or composed of racemes, exerted or embraced at base by subtending leaf. Panicle open or contracted, linear, 2–14 cm long. Primary panicle branches indistinct the panicle almost racemose. Racemes single. Spikelets appressed or spreading or deflexed, solitary. Fertile spikelets pedicelled. Pedicels present, filiform, pubescent.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 6–9 mm long, 2–3 mm wide, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet or reaching apex of florets or exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 4.5–9 mm long, 1 length of upper glume, membranous or chartaceous, 1-keeled, 5–7 -veined. Lower glume apex acute. Upper glume ovate, 4.5–9 mm long, 0.9–1.2 length of adjacent fertile lemma, membranous or chartaceous, without keels, 3–5 -veined. Upper glume apex acute.

Florets. Basal sterile florets 2 or more, similar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret oblong, 4–7 mm long, 0.75–1 length of fertile lemma, coriaceous, 1-keeled, smooth or rugose, truncate, muticous or mucronate. Lemma of upper sterile floret oblong, basally auriculate, 5–7 mm long, 1.3 length of lower sterile floret, coriaceous, smooth or rugose above, truncate, muticous or mucronate. Fertile lemma oblong, 5–7 mm long, coriaceous, keeled. Lemma apex truncate. Palea 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Western Cape.

Ehrharta dura Nees. *Fl. Afr. Austr.* 218 (1841).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IST: *Drige*, [Africa]: Cap b. sp. (LE).

LT: *Drige s.n.*, South Africa: Du Toit's Kloof, 3000 ft (LE; ILT: K, PRE). LT designated by ?.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (36, Fig, 4).

Derivation (Clifford & Bostock 2007): leaf-blades tough.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short or elongated, woody, scaly, glabrous. Butt sheaths dark brown, persistent and investing base of culm, with compacted dead sheaths. Basal innovations intravaginal, flabellate. Culms erect, 25–80 cm long, 2–4 mm diam. Culm-internodes thin-walled. Lateral branches lacking. Leaves mostly basal. Leaf-sheath auricles erect. Ligule a ciliolate membrane, 1.5–3 mm long. Leaf-blades erect, lanceolate, flat or conduplicate, 9–32 cm long, 4–10 mm wide. Leaf-blade surface glabrous. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle, exerted or embraced at base by subtending leaf. Panicle open or contracted, lanceolate or oblong, 7–20 cm long. Spikelets appressed, solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, with a barren rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if

two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 9–16 mm long, 3 mm wide, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume elliptic, 2.5–6.5 mm long, 0.5–0.75 length of upper glume, chartaceous, pallid or mid-green, without keels, 3–5 -veined. Lower glume apex acute. Upper glume elliptic, 3.5–7 mm long, 0.33–0.5 length of adjacent fertile lemma, chartaceous, pallid or mid-green, without keels, 5–9 -veined. Upper glume apex truncate.

Florets. Basal sterile florets 2 or more, similar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret elliptic, 5–10 mm long, 0.5–0.66 length of fertile lemma, cartilaginous, 1-keeled, 3–11 -veined, ribbed, scabrous, attenuate, awned. Awn of lower sterile floret 2–16 mm long. Lemma of upper sterile floret elliptic, 9–16 mm long, 1.5–2 length of lower sterile floret, cartilaginous, scabrous or ribbed, attenuate, awned. Awn of upper sterile floret 2–16 mm long. Fertile lemma elliptic, 8–14 mm long, cartilaginous, keeled, 3–5 -veined, 0–3 -veined or more than 3-veined. Lemma lateral veins obscure. Lemma apex truncate, pubescent. Palea 0.75–1 length of lemma, 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous, ciliate, 2-toothed. Anthers 4 or 6, 7 mm long, yellow. Caryopsis 9 mm long.

N = 12 (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Western Cape, Eastern Cape.

Ehrharta eburnea G.E. Gibbs Russell. *Bothalia*, 15: 145 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: South Africa, Sutherland: Story 4441 (PRE holo, K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. ebur*, ivory; *-ea*, pertaining to. Bulbous culm base resembles an ivory bead.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes absent or elongated. Butt sheaths purple. Culms erect, 20–50 cm long, swollen at the base, forming an elongated corm. Ligule a ciliolate membrane. Leaf-blades flat or involute, 4–15 cm long, 2–5 mm wide.

Inflorescence. Inflorescence a panicle, comprising 12–32 fertile spikelets. Panicle open, linear, secund, 6–13 cm long, 1–2.5 cm wide. Primary panicle branches indistinct the panicle almost racemose. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 9–13 mm long, 3–4 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume elliptic, 1.5–2 mm long, 0.5 length of upper glume, membranous, purple, 1-keeled, 5 -veined. Lower glume apex obtuse. Upper glume elliptic, 3–4 mm long, 0.33 length of adjacent fertile lemma, membranous, purple, without keels, 5 -veined. Upper glume apex obtuse.

Florets. Basal sterile florets 2 or more, similar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret elliptic, 8–11 mm long, 1 length of fertile lemma, coriaceous, 1-keeled, ribbed, puberulous, ciliate on midvein, ciliolate on margins, acute, awned. Awn of lower sterile floret 1 mm long. Lemma of upper sterile floret elliptic, 9–13 mm long, 1.1 length of lower sterile floret, coriaceous, ribbed, pubescent, ciliate on midvein, ciliolate on margins, acute, awned. Awn of upper sterile floret 1 mm long. Fertile lemma elliptic, 8–11 mm long, coriaceous, keeled. Lemma apex obtuse. Palea 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous. Anthers 6.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Northern Cape, Western Cape, Eastern Cape.

Ehrharta erecta Lam. *Encyc.* 2: 347 (1786).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000), S-L Chen

et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960) (& as *E. abyssinica*), W.D.Clayton & N.Snow, Key to Pacific Grasses (2010).

TYPE from South Africa or India. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Africa or India, *M. Sonnerat s.n.* "La collection de Graminees que M. Sonnerat nous a communiquee; mais nous ne savons pas positivement si ell est du Cap,...ou si elle est de l'Inde.

Illustrations (Books): H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962) (133, Fig. 576 as *E. abyssinica*), F.N.Hepper, *F.W.T.A.* 3(2) (1972), R.M.Phillip, F.T.E.A., *Gramineae* (1(1970):39, Fig. 14 as var. *abyssinica*), G.V.Pope et al., *Flora Zambesiaca* 10 (1(1971):40, t. 10), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (36, Fig. 4), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (12, Fig. 6 as var. *abyssinica*), T.A.Cope, in M.Thulin, *Poaceae* (Gramineae). *Flora of Somalia* (1995) (152, Fig. 75 as var. *abyssinica*), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (56, Fig. 20), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (20, Pl 2), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (370, Fig. 73), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (234), J.C.Tothill,& J.B.Hacker. *The grasses of southern Queensland* (1983) (212), A.Wilson (ed.), *Flora of Australia*, Vol 44A. *Poaceae* (2009) (372, Fig. 50 as var. *erecta*), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (35), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 241).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. held upright. Spikelets or inflorescence branches held erect.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms decumbent, 40–100 cm long, 4–6 -noded, rooting from lower nodes. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 2–7 mm long, entire or lacerate, truncate or obtuse. Leaf-blades 4–20 cm long, 2–10(–15) mm wide.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, linear or elliptic, equilateral or nodding, 6–20 cm long. Primary panicle branches appressed or ascending, 1–3 -nate, simple. Panicle branches stiff, smooth or scaberulous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 2–10 mm long.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, (3–)4–5.75(–6.8) mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus glabrous or pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume ovate, 3–3.6 mm long, 0.8 length of upper glume, membranous, 1-keeled, 3(–5) -veined. Lower glume apex obtuse or acute. Upper glume ovate, 3.5–4.5 mm long, 0.8 length of adjacent fertile lemma, membranous, without keels, 5 -veined. Upper glume apex emarginate or acute.

Florets. Basal sterile florets 2 or more, similar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret elliptic, 5.4 mm long, coriaceous, 1-keeled, 5 -veined, smooth or rugose, rough above, glabrous or hispidulous, obtuse. Lemma of upper sterile floret elliptic, basally auriculate, 6.5 mm long, 1.2 length of lower sterile floret, coriaceous, smooth or rugose above, obtuse or acute. Fertile lemma ovate, 5.5 mm long, coriaceous, keeled, 5 -veined, more than 3-veined. Lemma midvein scaberulous. Lemma lateral veins with cross-veins. Lemma apex obtuse. Palea 2 -veined. Palea keels approximate, scaberulous.

Flower and Fruit. Lodicules 2, obovate, membranous, 2-toothed, obtuse. Anthers 3, 1.5–2 mm long.

N = 12 (1 ref TROPICOS).

Distribution (TDWG). **Continent.** Europe (*), Africa, Temperate Asia, Australasia (*), Pacific, North America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Middle Atlantic ocean.** Rwanda. Eritrea, Ethiopia (inc. Eritrea), Sudan. Kenya, Tanzania, Uganda. Malawi, Mozambique, Zimbabwe. Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Lesotho, Western Cape, Eastern Cape. St Helena. **Arabian Peninsula, China.** China South Central. **Australia, New Zealand.** Western Australia (*), South Australia (*), Queensland (*), New South Wales (*), Victoria (*), Tasmania (*). New Zealand North I, New Zealand South I. **North-central Pacific.** Hawaii (*). **Southwestern USA.** California.

TDWG4. Yunnan (*). South-West. Southern. South East. Coast, Tablelands, Western Slopes.

Ehrharta festucacea Willd. *Syst. Veg.* 72: 1378 (1830).

TYPE from Madagascar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Madagascar: Aub. d., *Petit Thouars s.n.*.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

Ehrharta longiflora Sm. *Pl. Ic. Ined. t.* 32. (1789).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from South Africa, Cape:. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Ad Prom. Bonae Spei, *Masson* (HT: BM [hb. Banks]).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (234), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989), A.Wilson (ed.), *Flora of Australia*, Vol 44A. *Poaceae* (2009) (372, Fig 50), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): *L. longus*, long; flos, flower. Having long spikelets.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Annual. Culms geniculately ascending or decumbent, 15–60 cm long, without nodal roots or rooting from lower nodes. Ligule a ciliolate membrane. Leaf-blades 10–20 cm long, 5–15 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate, loose, 10–20 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 10–18 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume ovate, 2–3 mm long, 0.5 length of upper glume, membranous, 1-keeled, 5 -veined. Lower glume apex acuminate. Upper glume ovate, 4–6 mm long, 0.5 length of adjacent fertile lemma, membranous, 1-keeled, 7 -veined. Upper glume apex acuminate.

Florets. Basal sterile florets 2 or more, similar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret oblong, 8–10 mm long, 1 length of fertile lemma, coriaceous, 1-keeled, rugose, attenuate, awned. Awn of lower sterile floret 2–12 mm long. Lemma of upper sterile floret oblong, basally constricted, 9–12 mm long, 1.1 length of lower sterile floret, coriaceous, rugose above, attenuate, awned. Awn of upper sterile floret 2–12 mm long. Fertile lemma oblong, 8–10 mm long, coriaceous, keeled. Lemma apex acute. Palea 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous.

N = 12 (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe (*), Africa, Australasia (*), North America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Southern Africa, Middle Atlantic ocean.** Namibia, Western Cape. **Australia, New Zealand.** Western Australia (*), South Australia (*), Queensland (*), New South Wales (*), Victoria (*), Tasmania (*). Chatham Is, New Zealand North I. **Southwestern USA.** California.

TDWG4. Eremean, South-West. Southern. South East. Coast, Western Slopes, Western Plains.

Ehrharta longifolia Schrad. *Goett. Gel. Ans.* 3: 2077 (1821).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Cape Good Hope, *Hesse s.n.*.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (36, Fig. 4), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (57, Fig 21), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (20, Pl 2), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (370, Fig 73), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (105, Fig. 17).

Derivation (Clifford & Bostock 2007): *L. longus*, long; folium, leaf. With long leaf-blades.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Culms 60–120 cm long, swollen at the base, forming an ovoid corm. Ligule an eciliate membrane. Leaf-blades convolute, 7–20 cm long, 2–5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, linear, 10–25 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 10–12 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume ovate, 0.9 length of upper glume, hyaline, without keels, 3 -veined. Lower glume apex acuminate. Upper glume ovate, 0.5–0.66 length of adjacent fertile lemma, hyaline, without keels, 5 -veined. Upper glume apex acuminate.

Florets. Basal sterile florets 2 or more, similar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret oblong (margins flat below), 1 length of spikelet, cartilaginous, 1-keeled, 5 -veined, prominently veined, rugose, obtuse, mucronate. Lemma of upper sterile floret elliptic, 1 length of lower sterile floret, cartilaginous, rugose throughout, obtuse, mucronate. Fertile lemma elliptic, 9–10 mm long, cartilaginous, keeled, 5 -veined, more than 3-veined. Lemma apex truncate. Palea 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous.

Distribution (TDWG). Continent. Europe (*), Africa.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Southern Africa.** Namibia (?), Free State (?), Northern Cape, Western Cape, Eastern Cape (?).

Ehrharta longigluma C. E. Hubbard. *Kew Bull.* 1933, 501 (1933).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa, Natal. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Natal: Mont. aux sources, common in grassland on mountain slopes, Feb 1926, *Bayer & McClean* 270.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (36, Fig. 4).

Derivation (Clifford & Bostock 2007): *L. longus*, long; gluma, husk. Spikelets with long glumes and or lemmas.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Perennial. Rhizomes elongated. Culms 20–60 cm long. Culm-nodes pubescent. Ligule an eciliate membrane. Leaf-blades 2.5–12 cm long, 2–4 mm wide. Leaf-blade surface pubescent.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate or ovate, 6–13 cm long. Primary panicle branches spreading. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–7.5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 0.9 length of upper glume, hyaline, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 1.2–1.5 length of adjacent fertile lemma, hyaline, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Basal sterile florets 2 or more, dissimilar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret elliptic, 0.75 length of spikelet, cartilaginous, 1-keeled, 5 -veined, smooth, obtuse. Lemma of upper sterile floret elliptic, basally auriculate, 3.5–5.2 mm long, 1.3 length of lower sterile floret, cartilaginous, smooth, obtuse. Fertile lemma elliptic, 3.5–5.2 mm long, cartilaginous, keeled, 5 -veined, more than 3-veined. Lemma apex obtuse. Palea 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous.

N = 12 (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Free State, Kwazulu-Natal, Lesotho, Eastern Cape.

Ehrharta melicoides Willd. ex Nees, in syn. *Fl. Afr. Austr.* 209 (1841).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: South Africa, Cape: Bernh.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (36, Fig, 4).

Derivation (Clifford & Bostock 2007): Gk. -oides, resembling. Similar to *Melica*.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Butt sheaths scarious, not bulbous or thickened and forming a bulb, persistent and investing base of culm, with compacted dead sheaths. Culms 30–70 cm long. Ligule an eciliate membrane. Leaf-blades convolute, 5–25 cm long, 2–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, 10–20 cm long. Primary panicle branches ascending or spreading, 4–9 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3.5–4 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 0.9 length of upper glume, hyaline, without keels, 3 -veined. Lower glume apex acuminate. Upper glume ovate, 1 length of adjacent fertile lemma, hyaline, without keels, 5 -veined. Upper glume apex acuminate.

Florets. Basal sterile florets 2 or more, dissimilar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret elliptic, 0.66 length of spikelet, cartilaginous, 1-keeled, 5 -veined, smooth, obtuse. Lemma of upper sterile floret elliptic, basally auriculate, 1.5 length of lower sterile floret, cartilaginous, smooth, obtuse. Fertile lemma elliptic, 3.5–4 mm long, cartilaginous, keeled, 5 -veined, more than 3-veined. Lemma apex obtuse. Palea 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous.

N = 12 (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Northern Cape, Western Cape.

Ehrharta microlaena Nees. *Fl. Afr. Austr.* 217 (1841).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IST: *Drige Hb. Seidlitz*, [Africa]: C. b. sp. (LE).

LT: *Drige s.n.*, Du Toit's Kloof (LE (dupl. in K, SAM)).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (36, Fig, 4).

Derivation (Clifford & Bostock 2007): Gk. mikros, small; chlaina, cloak. The subtending glumes are tiny.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes absent. Basal innovations intravaginal, flabellate. Culms erect, 50–110 cm long, 1–2.5 mm diam. Culm-internodes thin-walled. Lateral branches lacking. Leaves mostly basal. Leaf-sheath auricles erect. Ligule an eciliate membrane, 6–8 mm long. Leaf-blades erect, filiform, involute, 7–15 cm long, 0.5–1 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, lanceolate or oblong, 6–18 cm long. Spikelets spreading, solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, with a barren rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 13–15 mm long, 2.5 mm wide, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume elliptic, 2.5–3 mm long, 0.5–0.75 length of upper glume, chartaceous, mid-green, without keels, 3 -veined. Lower glume apex acute. Upper glume elliptic, 4–5 mm long, 0.33–0.5 length of adjacent fertile lemma, chartaceous, mid-green, without keels, 7 -veined. Upper glume apex truncate.

Florets. Basal sterile florets 2 or more, similar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret elliptic, 6–7 mm long, 0.5 length of fertile lemma, cartilaginous, 1-keeled, 5–7 -veined, ribbed, glabrous or pubescent, attenuate, awned. Awn of lower sterile floret 13–25 mm long. Lemma of upper sterile floret obovate, 13–15 mm long, 2 length of lower sterile floret, cartilaginous, ribbed, attenuate, awned. Awn of upper sterile floret 13–25 mm long. Fertile lemma elliptic, 10–12 mm long, cartilaginous, keeled, 5–7 -veined, more than 3-veined. Lemma lateral veins obscure. Lemma apex truncate, pubescent. Palea 0.75–1 length of lemma, 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous, ciliate, 2-toothed. Anthers 4, 7 mm long. Caryopsis 8 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Western Cape.

Ehrharta ottonis Kuntze ex Nees. *Fl. Afr. Austr.* 201 (1841).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: South Africa, Cape: Kuntze.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955).

Derivation (Clifford & Bostock 2007): in honor of Friedrich Otto (1783–1856) German botanist and gardener.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Culms 60–120 cm long, swollen at the base, forming an elongated corm. Ligule an eciliate membrane. Leaf-blades erect, convolute, 30–60 cm long, 2–5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, linear, 10–25 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 8–9.8 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume ovate, 5–6 mm long, 0.66 length of upper glume, hyaline, without keels, 3 -veined. Lower glume apex acuminate. Upper glume ovate, 6–7 mm long, 0.75 length of adjacent fertile lemma, hyaline, without keels, 5 -veined. Upper glume apex acuminate.

Florets. Basal sterile florets 2 or more, dissimilar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret oblong, 0.9 length of spikelet, cartilaginous, 1-keeled, 5 -veined, prominently veined, smooth, obtuse, mucronate. Lemma of upper sterile floret elliptic, 8–9.5 mm long, 1.1–1.2 length of lower sterile floret, cartilaginous, rugose throughout, obtuse, mucronate. Fertile lemma elliptic, 7.5–9.5 mm long, cartilaginous, keeled, 5 -veined, more than 3-veined. Lemma apex truncate. Palea 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Western Cape, Eastern Cape.

Ehrharta pusilla Nees. *Fl. Afr. Austr.* 223 (1841).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IST: *Drige Hb. Seidlitz*, [Africa]: C. b. spei (LE).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (44, Fig, 13), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952), A.Wilson (ed.), *Flora of Australia*, Vol 44A. *Poaceae* (2009) (372, Fig 50).

Derivation (Clifford & Bostock 2007): L. very small. Plants of small stature.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Annual. Culms prostrate, 5–35 cm long. Ligule an eciliate membrane. Leaf-blades flat or conduplicate, 1.5–11 cm long, 2–7 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, linear, secund, 3–6 cm long. Primary panicle branches indistinct the panicle almost racemose. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, (5.6–)6.5–8.5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, reaching apex of florets, thinner than fertile lemma. Lower glume lanceolate, 0.9 length of upper glume, herbaceous, without keels, 5 -veined. Lower glume apex acuminate. Upper glume lanceolate, 1 length of adjacent fertile lemma, herbaceous, without keels, 7 -veined. Upper glume apex acuminate.

Florets. Basal sterile florets 2 or more, dissimilar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret elliptic, 1 length of spikelet, cartilaginous, 1-keeled, 5 -veined, smooth, ciliate on margins, acute, awned. Awn of lower sterile floret 1–2 mm long. Lemma of upper sterile floret elliptic, basally auriculate, 1 length of lower sterile floret, cartilaginous, ciliate on margins, acute, awned. Awn of upper sterile floret 1–2 mm long. Fertile lemma elliptic, 5.5–8 mm long, cartilaginous, keeled, 5 -veined, more than 3-veined. Lemma apex acute. Palea 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous.

N = 12 (2 refs TROPICOS).

Distribution (TDWG). Continent. Africa, Australasia (*).

Country /Province /State. Southern Africa. Northern Cape. Australia. Western Australia (*).

TDWG4. South-West.

Ehrharta ramosa Sm. *Pl. Ic. Ined. t. 33.* (1789).

Regarded by K as a synonym (*E. calycina*).

Accepted by: U. Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Promontorio Bonae Spei Africes, *Thunberg s.n.*.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (40, Fig, 8).

Images: F. van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): *L. ramus*, branch; -osa, abundance. Inflorescences or culms much branched.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes elongated, woody, not obviously scaly or scaly. Basal innovations intravaginal. Culms erect or decumbent, robust, 30–120 cm long, 2–5 mm diam., wiry or woody, not swollen at the base or swollen at the base, forming an ovoid corm. Culm-internodes thin-walled. Lateral branches suffrutescent. Leaves with blades commonly suppressed, transferring photosynthetic function to sheath and culm. Ligule a ciliolate membrane, 1 mm long. Leaf-blades 0–3 cm long, 1 mm wide.

Inflorescence. Inflorescence a panicle or composed of racemes, exerted or embraced at base by subtending leaf. Panicle open or contracted, linear, 2–14 cm long. Primary panicle branches indistinct the panicle almost racemose. Racemes single. Spikelets appressed or spreading or deflexed, solitary. Fertile spikelets pedicelled. Pedicels present, filiform, pubescent.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 6–9 mm long, 2–3 mm wide, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet or reaching apex of florets or exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 4.5–9 mm long, 1 length of upper glume, membranous or chartaceous, 1-keeled, 5–7 -veined. Lower glume apex acute. Upper glume ovate, 4.5–9 mm long, 0.9–1.2 length of adjacent fertile lemma, membranous or chartaceous, without keels, 3–5 -veined. Upper glume apex acute.

Florets. Basal sterile florets 2 or more, similar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret oblong, 4–7 mm long, 0.75–1 length of fertile lemma, coriaceous, 1-keeled, smooth or rugose, truncate, muticous or mucronate. Lemma of upper sterile floret oblong, basally auriculate, 5–7 mm long, 1.3 length of lower sterile floret, coriaceous, smooth or rugose above, truncate, muticous or mucronate. Fertile lemma oblong, 5–7 mm long, coriaceous, keeled. Lemma apex truncate. Palea 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Western Cape, Eastern Cape.

Ehrharta rehmannii Stapf. *Kew Bull.* 1897, 288 (1897).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: LT: *Rehmann 74*, South Africa: Outeniqua Mts., Montagu Pass (K (photo, PRE); ILT: PRE (fragm. ex K)). LT designated by Gibbs Russell & Ellis, *Bothalia* 19(2): 192 (1989).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (36, Fig, 4 as *E. subspicata*).

Derivation (Clifford & Bostock 2007): in honor of Anton Rehmann (1840–1917) Polish botanist and geographer who collected in South Africa.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes elongated, not obviously scaly or scaly. Basal innovations intravaginal. Culms erect or decumbent or rambling, of moderate stature, 12–100 cm long, 0.3–2.5 mm diam., firm or wiry or woody. Culm-internodes thin-walled or solid. Lateral branches ample. Leaves cauline. Leaf-sheath auricles falcate. Ligule a ciliolate membrane, 0.3–2 mm long. Leaf-blades persistent or deciduous at the ligule, 1.5–30 cm long, 2–8.5 mm wide.

Inflorescence. Inflorescence a panicle or composed of racemes or comprising only a few spikelets, comprising 1–50 fertile spikelets, exerted or embraced at base by subtending leaf. Panicle open or contracted, linear, 1–12 cm long, bearing many spikelets or few spikelets. Primary panicle branches whorled at lower nodes, indistinct the panicle almost racemose. Racemes single. Spikelets appressed or spreading or deflexed, solitary. Fertile spikelets pedicelled. Pedicels present, filiform, pubescent.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–8.5 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes elongated between basal sterile florets. Floret callus glabrous or pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet or reaching apex of florets or exceeding apex of florets, thinner than fertile lemma, parallel to lemmas or gaping. Lower glume elliptic, 4–8.5 mm long, 1 length of upper glume, membranous or chartaceous, 1-keeled, 3–7 -veined. Lower glume apex acute. Upper glume elliptic, 4–8.5 mm long, 0.9–1.2 length of adjacent fertile lemma, membranous or chartaceous, without keels, 1–5 -veined. Upper glume apex acute.

Florets. Basal sterile florets 2 or more, similar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret elliptic, 4–8.5 mm long, 1 length of fertile lemma, coriaceous, 1-keeled, 3–7 -veined, without ribs or ribbed, smooth or scabrous or rugose, truncate, muticous. Lemma of upper sterile floret elliptic, basally auriculate, 4–8.5 mm long, 1 length of lower sterile floret, coriaceous, rugose above, obtuse, muticous. Fertile lemma elliptic, 4–8.5 mm long, coriaceous, keeled, 5–7 -veined, more than 3-veined. Lemma apex truncate. Palea 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Western Cape, Eastern Cape.

Ehrharta rupestris Nees. *Fl. Afr. Austr.* 227 (1841).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *Drhge s.n.*, South Africa: Caledon District: Gnadenthal (K (photo, PRE), PRE (fragm.), SAM).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (36, Fig, 4).

Derivation (Clifford & Bostock 2007): *L. rupestris*, rock; -estria, place of growth; Growing amongst rocks.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Perennial, cushion forming or mat forming. Culms prostrate, 10–45 cm long. Leaf-sheaths longer than adjacent culm internode. Ligule a ciliolate membrane. Leaf-blades flat or conduplicate or involute, 2–10 cm long, 2–4 mm wide. Leaf-blade apex abruptly acute or acute.

Inflorescence. Inflorescence a panicle or comprising only a few spikelets, comprising 1–9 fertile spikelets. Panicle open, linear, equilateral or nodding, 0.5–4 cm long. Primary panicle branches indistinct the panicle almost racemose. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4.5–6.3 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume oblong, 1–2 mm long, 1 length of upper glume, membranous, without keels, 3 -veined. Lower glume apex erose, obtuse. Upper glume oblong, 1–2 mm long, 0.2–0.33 length of adjacent fertile lemma, membranous, without keels, 5 -veined. Upper glume apex acute.

Florets. Basal sterile florets 2 or more, dissimilar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret ovate, 1.5–2 mm long, 0.33 length of spikelet, chartaceous, 1-keeled, 3–5 -veined, smooth, glabrous, obtuse. Lemma of upper sterile floret elliptic, 3.5–5 mm long, 2–2.5 length of lower sterile floret, coriaceous, tuberculate, obtuse. Fertile lemma ovate, 4.5–6.3 mm long, coriaceous, keeled, 7 -veined, more than 3-veined. Lemma surface tuberculate. Lemma apex obtuse. Palea 0.8 length of lemma, membranous, 3 -veined, 1-keeled.

Flower and Fruit. Lodicules 2, obovate, membranous. Anthers 6.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Northern Cape, Western Cape, Eastern Cape.

Ehrharta setacea Nees. *Fl. Afr. Austr.* 228 (1841).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Drhge s.n.*, South Africa: Cape: Table Mountain (PRE (fragm.)).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (36, Fig, 4).

Derivation (Clifford & Bostock 2007): L. seta, bristle; -acea, indicating resemblance. With bristle-like leaf-blades.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Perennial, cushion forming or mat forming or caespitose. Rhizomes elongated. Stolons absent or present. Culms erect or decumbent or rambling, 10–60 cm long. Lateral branches ample or suffrutescent. Leaves apparently irregular or distichous. Ligule a ciliolate membrane. Leaf-blades linear or filiform, flat or conduplicate or involute, 3–10 cm long, 2–6 mm wide, coriaceous, stiff. Leaf-blade surface smooth or scabrous.

Inflorescence. Inflorescence composed of racemes or comprising only a few spikelets, comprising 1–15 fertile spikelets. Racemes 1, single, 2.5–6 cm long, bearing few fertile spikelets. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–8 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet or reaching apex of florets or exceeding apex of florets, thinner than fertile lemma, parallel to lemmas or gaping. Lower glume oblong, 3–8 mm long, 1 length of upper glume, membranous, 1-keeled, 5 -veined. Lower glume apex acute. Upper glume oblong, 3–8 mm long, 0.66–1.2 length of adjacent fertile lemma, membranous, without keels, 5 -veined. Upper glume apex acute.

Florets. Basal sterile florets 2 or more, dissimilar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret ovate, 1–4 mm long, 0.33–0.5 length of fertile lemma, hyaline, 1-keeled, 3–5 -veined, ribbed, acute, muticous. Lemma of upper sterile floret elliptic, 3–8 mm long, 2–3 length of lower sterile floret, coriaceous, ribbed or tuberculate, obtuse (cucullate), muticous. Fertile lemma oblong, 3–8 mm long, coriaceous, keeled, 7 -veined, more than 3-veined. Lemma lateral veins ribbed. Lemma surface tuberculate, rough on veins. Lemma apex obtuse, cucullate. Palea 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous. Anthers 6.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Western Cape.

Ehrharta thunbergii G.E. Gibbs Russell, nom nov. *Bothalia*, 17(2): 192 (1987).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: : Based on *Aira villosa* ; South Africa, Cape: Thunberg 8851 (UPS holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Carl Pehr Thunberg (1743–1828) Swedish botanist and physician.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes elongated, scaly, hairy. Butt sheaths papery. Culms erect, 100–150 cm long, 2–3 mm diam., woody, not swollen at the base or swollen at the base, forming an ovoid corm. Culm-internodes solid. Culm-nodes black. Lateral branches suffrutescent. Leaves mostly basal. Leaf-sheath auricles falcate. Ligule a ciliolate membrane, 0.5 mm long. Leaf-blades persistent or deciduous at the ligule, flat or involute, 3–10 cm long, 2–5 mm wide. Leaf-blade surface glabrous. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, linear, 8–16 cm long. Primary panicle branches indistinct the panicle almost racemose or simple. Spikelets spreading, solitary. Fertile spikelets pedicelled. Pedicels present, filiform, curved.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets cuneate, laterally compressed, 8–10 mm long, 2–3 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes elongated between basal sterile florets. Floret callus bearded.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume elliptic, 6–8 mm long, 0.9–1 length of upper glume, hyaline, 1-keeled, 5 -veined. Lower glume apex acute. Upper glume elliptic, 7–8 mm long, 0.5–0.75 length of adjacent fertile lemma, hyaline, without keels, 5 -veined. Upper glume apex acute.

Florets. Basal sterile florets 2 or more, similar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret elliptic, 4–6 mm long, 1 length of fertile lemma, cartilaginous, 1-keeled, villous, acute, awned. Awn of lower sterile floret 2–3 mm long. Lemma of upper sterile floret elliptic, 7–8 mm long, 1.3–1.5 length of lower sterile floret, cartilaginous, villous, obtuse, awned. Awn of upper sterile floret 1–3 mm long. Fertile lemma elliptic, 4–5 mm long, cartilaginous, keeled. Lemma surface pilose. Lemma apex acute. Palea 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous. Anthers 6, 5 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Namibia, Northern Cape, Western Cape, Eastern Cape.

Ehrharta triandra Nees. *Fl. Afr. Austr.* 221 (1841).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IST: *Drige Hb. Seidlitz*, [S Africa]: C. b. spei (LE).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (36, Fig. 4).

Derivation (Clifford & Bostock 2007): Gk. treis, three; aner, man. Florets with three anthers.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Annual. Culms decumbent, 6–45 cm long. Ligule a ciliolate membrane. Leaf-blades 3–12 cm long, 2–8 mm wide, flaccid.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate, loose, 2–15 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 6–11 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus glabrous.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume ovate, 1.8–2.2 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 2–3 mm long, 1.2 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Basal sterile florets 2 or more, similar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret elliptic, 3–5 mm long, 1.5–2 length of fertile lemma, coriaceous, 1-keeled, 7–9 -veined, rugose, glabrous, attenuate, awned. Awn of lower sterile floret 2–4 mm long. Lemma of upper sterile floret elliptic, 3–5 mm long, 1 length of lower sterile floret, coriaceous, rugose above, glabrous, attenuate, awned. Awn of upper sterile floret 2–4 mm long. Fertile lemma ovate, 2–2.5 mm long, cartilaginous, keeled. Lemma apex acute. Palea 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous. Anthers 3.

N = 12 (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Northern Cape, Western Cape.

Ehrharta villosa Schult. f. *Syst.* 7: 1374 (1830).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000).

TYPE from South Africa. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: South Africa, Cape: Ecklon (P holotype).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (20, Pl. 3), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (57, Fig. 22 as var. *maxima*), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (370, Fig. 73 as var. *maxima*), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (234), A.Wilson (ed.), *Flora of Australia*, Vol 44A. *Poaceae* (2009) (372, Fig. 50), E.G.Nicora, *Los Generos de Gramineas de America Austral* (1987) (150, Fig. 36), A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (56, Fig. 13).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. villi, long weak hairs; -osa, abundance. The plant in whole or in part covered with long hairs.

Classification. Subfamily Ehrhartoideae. Tribe: Ehrharteae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes elongated, not obviously scaly, glabrous. Butt sheaths papery. Basal innovations intravaginal. Culms erect, 100–150 cm long, 2–5 mm diam., woody, not swollen at the base. Culm-internodes solid. Lateral branches suffrutescent. Leaves cauline. Leaf-sheath auricles falcate. Ligule a ciliolate membrane, 0.5 mm long. Leaf-blades persistent or deciduous at the ligule, involute, 1.5–13 cm long, 4–8 mm wide. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle, subtended by an unspecialized leaf-sheath or an inflated leaf-sheath, exerted or embraced at base by subtending leaf. Panicle open or contracted, linear, 4–26 cm long. Primary panicle branches indistinct the panicle almost racemose or simple. Spikelets spreading, solitary. Fertile spikelets pedicelled. Pedicels present, filiform, curved.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets cuneate, laterally compressed, 11–18 mm long, 3–4 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes elongated between basal sterile florets. Floret callus bearded.

Glumes. Glumes persistent, similar, shorter than spikelet or reaching apex of florets or exceeding apex of florets, thinner than fertile lemma. Lower glume elliptic, 8–13 mm long, 0.7–0.9 length of upper glume, membranous, 1-keeled, 8–9 -veined. Lower glume apex acute. Upper glume elliptic, 9–18 mm long, 0.75–1 length of adjacent fertile lemma, membranous, without keels, 5–9 -veined. Upper glume apex acute.

Florets. Basal sterile florets 2 or more, similar, barren, without significant palea, attached to and deciduous with the fertile. Lemma of lower sterile floret elliptic, 6–10 mm long, 1 length of fertile lemma, cartilaginous, 1-keeled, villous, acute, mucronate or awned. Awn of lower sterile floret 0.5–3 mm long. Lemma of upper sterile floret elliptic, 6–10 mm long, 1 length of lower sterile floret, cartilaginous, villous, obtuse, mucronate or awned. Awn of upper sterile floret 0.5–3 mm long. Fertile lemma elliptic, 6–8 mm long, cartilaginous, keeled. Lemma surface pilose. Lemma apex truncate. Palea 2 -veined. Palea keels approximate.

Flower and Fruit. Lodicules 2, membranous. Anthers 6, 6–8.5 mm long. Caryopsis ovoid, 5.5 mm long.

Distribution (TDWG). Continent. Africa, Australasia (*), South America.

Country /Province /State. Southern Africa. Western Cape, Eastern Cape. **Australia, New Zealand** (*). Western Australia (*), South Australia (*), New South Wales (*), Victoria (*). **Southern South America.** Argentina Northeast.

TDWG4. South-West. Southern. Coast. Buenos Aires.

Ekmanochloa aristata Ekman. *U. S. Dept. Agric., Misc. Publ. No.* 243 : 377 (1936).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Cuba. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *E.L. Ekman* 3729, 4 Dec 1914, Cuba: Oriente (US-1385553; IT: B (photo, USJ)).

Illustrations (Books): E.J.Judziewicz et al, *American Bamboos* (1999) (274, Fig. 166).

Illustrations (Journals): *Ann. Missouri Bot. Gard.* (80: 859. Fig.4 A-F (1993)).

Derivation (Clifford & Bostock 2007): L. arista, bristle; -ata, possessing.

Classification. Subfamily Bambusoideae. Tribe: Olyreae.

Habit, Vegetative Morphology. Perennial, caespitose. Cataphylls evident. Culms erect, 50 cm long. Culm-nodes swollen. Leaves cauline, differentiated into sheath and blade or with blades commonly suppressed, transferring photosynthetic function to sheath and culm. Leaf-sheath oral hairs setose. Ligule absent. Leaf-blade base with a brief petiole-like connection to sheath. Leaf-blades linear or lanceolate, 1–3.7 cm long, 1.5–4 mm wide. Leaf-blade surface ribbed, scaberulous, rough on both sides, pilose, densely hairy. Leaf-blade apex obtuse. Monoecious, with male and female spikelets in the same inflorescence.

Inflorescence. Inflorescence composed of racemes. Racemes 2, paired, erect, unilateral, 3–4 cm long (male half as long). Rhachis angular. Sexes segregated, on unisexual branches, with male conjugate. Spikelets solitary. Fertile spikelets pedicelled. Male spikelets pedicelled. Pedicels present, cuneate.

Fertile Spikelets. Spikelets comprising 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, dorsally compressed, 8–9 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, subequal in width, exceeding apex of florets, thinner than fertile lemma. Lower glume lanceolate, 8–9 mm long, 1.1 length of upper glume, herbaceous, without keels, 5 -veined. Lower glume lateral veins with cross-veins. Lower glume apex acuminate. Upper glume lanceolate, 6.5–8 mm long, 1.2 length of adjacent fertile lemma, herbaceous, without keels, 3 -veined. Upper glume lateral veins with cross-veins. Upper glume apex acute.

Florets. Fertile florets female. Fertile lemma lanceolate, 6 mm long, coriaceous, without keel. Lemma margins flat. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn flexuous, 10–15 mm long overall. Palea coriaceous, 2 -veined.

Flower and Fruit. Male spikelets distinct from female, 1 flowered, persistent, lanceolate, 3–3.2 mm long, glabrous. Male spikelet glumes absent. Male spikelet lemma 3 -veined, muticous.

Distribution (TDWG). Continent. South America.

Country /Province /State. Caribbean. Cuba.

Ekmanochloa subaphylla Hitchcock. *U. S. Dept. Agric., Misc. Publ. No. 243: 375* (1936).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Cuba. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *E.L. Ekman s.n. [1016]*, 2 Nov 1922, Cuba: Oriente: Sierra de Nipe: on overhanging limestone rocks of Loma Picote, alt. 500 m (US-1259999; IT: B (photo, USJ), MO-1710996, NY-70979, US-3110792).

Illustrations (Books): A.S.Hitchcock, *Manual of the Grasses of the West Indies* (1936) (376, Fig. 343).

Illustrations (Journals): *Ann. Missouri Bot. Gard.* (80: 859. Fig.4 G-L (1993)).

Derivation (Clifford & Bostock 2007): L. sub, almost; Gk. a, without; Gk. phyllon, leaf. Leaf-blades poorly developed.

Classification. Subfamily Bambusoideae. Tribe: Olyreae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 50–100 cm long. Culm-nodes constricted. Leaves cauline, differentiated into sheath and blade or with blades commonly suppressed, transferring photosynthetic function to sheath and culm. Ligule absent. Leaf-blade base with a brief petiole-like connection to sheath. Leaf-blades linear or lanceolate, 0.2–3.5 cm long, 1–4 mm wide. Leaf-blade surface ribbed, scaberulous, rough on both sides, glabrous or pilose, sparsely hairy. Leaf-blade apex obtuse. Monoecious, with male and female spikelets in the same inflorescence.

Inflorescence. Inflorescence composed of racemes. Racemes 2, paired, erect, unilateral, 3–4 cm long (male half as long). Rhachis angular. Sexes segregated, on unisexual branches, with male conjugate. Spikelets solitary. Fertile spikelets pedicelled. Male spikelets pedicelled. Pedicels present, cuneate.

Fertile Spikelets. Spikelets comprising 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, dorsally compressed, 6 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume oblong, 1.5–2 mm long, 0.75 length of upper glume, herbaceous, without keels, 3 -veined. Lower glume lateral veins with cross-veins. Lower glume apex emarginate. Upper glume oblong, 2–2.5 mm long, 0.33 length of adjacent fertile lemma, herbaceous, without keels, 3 -veined. Upper glume lateral veins with cross-veins. Upper glume apex emarginate.

Florets. Fertile florets female. Fertile lemma lanceolate, 6 mm long, coriaceous, without keel. Lemma margins flat. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn flexuous, 10–15 mm long overall. Palea coriaceous, 2 -veined.

Flower and Fruit. Male spikelets distinct from female, 1 flowered, persistent, lanceolate, 2 mm long, glabrous. Male spikelet glumes absent. Male spikelet lemma 3 -veined, muticous.

Distribution (TDWG). Continent. South America.

Country /Province /State. Caribbean. Cuba.

Eleusine africana Kennedy-O'Byrne. *Kew Bull.* 1957, 65 (1957).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *M. Wilman H.K.1*, Mar 1950, South Africa: Cape Province, Kimberley Dist.: Warrenton-on-Waal (K; IT: US-2589173).

Illustrations (Books): G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (as *E. corocana* subsp. *africana*), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (85, Fig 22), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (140, Fig 58), L.Boulos, *Flora of Egypt* 4 (2005) (264, Pl. 78), T.A.Cope, in M.Thulin, *Poaceae* (Gramineae). *Flora of Somalia* (1995) (as *E. corocana* subsp. *africana*).

Derivation (Clifford & Bostock 2007): L. -ana, indicating location. From Africa.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Annual, caespitose. Basal innovations flabellate. Culms geniculately ascending, of moderate stature, 40–90 cm long, without nodal roots or rooting from lower nodes. Culm-internodes elliptical in section. Leaves mostly basal. Leaf-sheaths keeled. Ligule a ciliolate membrane, 0.6–1 mm long, truncate. Leaf-blades flat or conduplicate, 5–35 cm long, 2.5–6 mm wide.

Inflorescence. Inflorescence composed of racemes. Peduncle glabrous (at raceme base). Racemes 3–15, digitate, unilateral, 4–17 cm long, 4–8 mm wide. Rhachis wingless, flattened. Spikelet packing broadside to rhachis, regular, 2 -rowed. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, laterally compressed, 4–8 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 2 mm long, 0.6–0.7 length of upper glume, membranous, 1-keeled, winged on keel, 2–3 -veined. Lower glume apex acute. Upper glume elliptic, 3–4.7 mm long, 0.7–0.9 length of adjacent fertile lemma, membranous, 1-keeled, winged on keel, 3 -veined (with subsidiaries in keel). Upper glume apex acute.

Florets. Fertile lemma lanceolate in profile, 3.5–5 mm long, membranous, 3 -veined (excluding subsidiaries), 0–3 -veined. Lemma midvein with contiguous subsidiary veins (3-veined). Lemma apex acute. Palea 0.9–1 length of lemma, 2 -veined. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with free soft pericarp, oblong, isodiametric, trigonous, concealed by floret, 1.2–1.6 mm long, black, granular or rugose.

$N = 18$ (1 ref TROPICOS). $2n = 36$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe, Africa, Temperate Asia.

Region. Northern Europe.

Country /Province /State. : Great Britain (*). **Northern Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean.** Egypt. Burundi, Rwanda. Eritrea, Ethiopia (inc. Eritrea), Socotra, Somalia, Sudan. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Madagascar. **Arabian Peninsula.** Saudi Arabia. Tristan de Cunha.

Eleusine coracana (L.) Gaertn. *Fruct.* 1: 8 t. 1. (1788).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)*, N.Tsvelev, *Grasses of the Soviet Union* (1983), T.Koyama, *Grasses of Japan and its neighboring regions* (1987), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from illustration in Plukenet. **Basionym or Replaced Name:** *Cynosurus coracanus* L., *Syst. Nat.* (ed. 10) 2: 875 (1759). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *Plukenet*, *Phytographia* pl. 91, f. 5 (1691), LT designated by ?, cited by de Wet et al., *Amer. J. Bot.* 71 (4): 551 (1984).

Illustrations (Books): H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962), G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):156 T. 46), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (131, Fig. 103), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (129, Fig. 75), L.Boulos, *Flora of Egypt* 4

(2005) (264, Pl. 78), C-C Hsu, *Taiwan Grasses* (1975) (388), K.M. Matthew, Further Illustrations on the *Flora of Tamilnadu Carnatic* (1988) (Pl. 768 & Pl. 769), H.J. Noltie, *The Grasses of Bhutan* (2000) (669, Fig. 35), H. Duistermaat, *Field Guide to the Grasses of Singapore* (2005) (67, Fig. 56), K.O. Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (414, Fig. 74), D. Sharp & B.K. Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), M.E. Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (111 as subsp. *coracana*), R. Pilger, *Die Natürlichen Pflanzenfamilien* 14d (1956) (23, Fig. 4), S-L Chen et al, *Flora of China*, Illustrations, *Poaceae* (2007) (Fig. 684), E. Hafliger & E. Schultz, *Grass Weeds*, CIBA-GEIGY (2:63(1980)).

Images: F. van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. -ana, pertaining to. Sinhalese kurakkan, porridge. The grains are ground and used for flour.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Annual, caespitose. Basal innovations flabellate. Culms erect, 60–200 cm long, 5–20 mm diam. Culm-internodes elliptical in section. Leaves mostly basal. Leaf-sheaths keeled. Ligule a ciliate membrane. Leaf-blades conduplicate, 30–60 cm long, 6–12 mm wide.

Inflorescence. Inflorescence composed of racemes. Peduncle glabrous or pilose above (at raceme base). Racemes 4–7, digitate, erect, linear or oblong, incurved, unilateral, 3–8 cm long, 9–15 mm wide. Rhachis wingless, flattened. Spikelet packing broadside to rhachis, crowded, regular, 2-rowed. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 5–10 mm long, persistent on plant.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 2–2.5 mm long, 0.6–0.7 length of upper glume, membranous, 1-keeled, winged on keel, 1–3 -veined. Lower glume apex acute. Upper glume elliptic, 3.5 mm long, 0.8–0.9 length of adjacent fertile lemma, membranous, 1-keeled, winged on keel, 5–7 -veined. Upper glume apex acute.

Florets. Fertile lemma lanceolate in profile, 4 mm long, membranous, 3 -veined (excluding subsidiaries), 0–3 -veined. Lemma midvein with contiguous subsidiary veins (3-veined). Lemma apex acute. Palea 0.9–1 length of lemma, 2 -veined. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with free soft pericarp, orbicular, isodiametric, biconvex, exposed between gaping lemma and palea at maturity, 1.5–2.5 mm long, dark brown, rugose.

$N = 18$ (2 refs TROPICOS). $2n = 36$ (7 refs TROPICOS).

Distribution (TDWG). **Continent.** Europe (*), Africa, Temperate Asia, Tropical Asia, Australasia (*), Pacific.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Northern Africa, West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean.** Algeria, Egypt, Burundi, Central African Republic, Gabon, Rwanda, DRC, Eritrea, Ethiopia (inc. Eritrea), Socotra, Sudan, Angola (*). Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Lesotho, Northern Cape, Western Cape, Eastern Cape. Madagascar (*). **Middle Asia, Caucasus, Western Asia, Arabian Peninsula, China, Eastern Asia.** Iran, Gulf States. China South Central, Hainan, Inner Mongolia, China North-Central, China Southeast. Japan, Taiwan. **Indian Subcontinent, Indo-China, Malesia, Papuasias.** Assam, Bangladesh, Eastern Himalaya, Sri Lanka, Andaman Is, Myanmar, Thailand, Vietnam. Java, Malaya, Singapore, Moluccas, Philippines, Sulawesi, Sumatra. **Australia.** Western Australia (*). **North-central Pacific.** Fiji (*). Marianas (*). **Brazil.** Brazil West Central.

TDWG4. Shandong, Anhui, Fujian, Guangdong, Henan, Jiangxi, Zhejiang, Guizhou, Hubei, Sichuan, Yunnan, Bhutan, Sikkim, Assam, Meghalaya, Andhra Pradesh, Bihar, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Rajasthan, Tamilnadu, Uttah Pradesh, West Bengal, Himachal Pradesh, Jammu Kashmir, South-West.

Eleusine floccifolia (Forssk.) Spreng. *Syst.* 1: 350 (1824).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, U. Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Yemen. **Basionym or Replaced Name:** *Cynosurus floccifolius* Forssk., *Fl. Aegypt.-Arab.* 21 (1775)

. T: <Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Forsskal 44*, 1763, Yemen: near Taizz (C; IT: C (2 sheets)).

Illustrations (Books): S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (140, Fig 58), L.Boulos, *Flora of Egypt* 4 (2005) (264, Pl. 78).

Derivation (Clifford & Bostock 2007): *L. floccus*, lock of wool; *folium*, leaf.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Basal innovations flabellate. Culms geniculately ascending, 20–70 cm long. Culm-internodes elliptical in section. Lateral branches lacking (or only at lowest node). Leaf-sheaths keeled. Ligule a ciliolate membrane, 0.3–0.5 mm long. Leaf-blades conduplicate, 8–55 cm long, 2.5–5 mm wide. Leaf-blade margins smooth, with tufts of hair. Leaf-blade apex acute.

Inflorescence. Inflorescence composed of racemes. Racemes 2–10, digitate, spreading or ascending, unilateral, 2.5–12 cm long. Rhachis wingless, flattened. Spikelet packing broadside to rhachis, regular, 2 -rowed. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, laterally compressed, 3.3–6.8 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 1.1–2 mm long, 0.4–0.5 length of upper glume, membranous, dark green, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume elliptic, 2.6–4.2 mm long, 0.9 length of adjacent fertile lemma, membranous, dark green, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic in profile, 2.8–4.6 mm long, membranous, mid-green or grey, 3 -veined, 0–3 -veined. Lemma midvein simple. Lemma apex acute. Palea 0.9–1 length of lemma, 2 -veined. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with free soft pericarp, ellipsoid or oblong, trigonous, 0.9–1.4 mm long, black, rugose.

$N = 9$ (7 refs TROPICOS). $2n = 18$ (10 refs TROPICOS), or 36 (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe (*), Africa, Temperate Asia.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Northern Africa, Northeast tropical Africa, East tropical Africa.** Egypt. Eritrea, Ethiopia (inc. Eritrea), Somalia. Kenya (*). **Arabian Peninsula.** Yemen.

Eleusine indica (L.) Gaertn. *Fruct.* 1: 8 (1788).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983), T.Koyama, *Grasses of Japan and its neighboring regions* (1987), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from ?illustration in Burman. **Basionym or Replaced Name:** *Cynosurus indicus* L., *Sp. Pl.* 72–73 (1753). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *Burman, Thes. Zeylan. pl.* 47, *f. 1* (1737), LT designated by Phillips in Cafferty et al., *Taxon* 49(2): 249 (2000).

Illustrations (Books): H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962) (200, Fig. 123), F.N.Hepper, *F.W.T.A.* 3(2) (1972) (396, Fig.432), G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):156 T. 46), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (130, Fig. 102), N.Feinbrun-Dothan, *Flora Palaestina* 4 (1986), T.A.Cope, in M.Thulin, *Poaceae* (Gramineae). *Flora of Somalia* (1995) (188, Fig. 100), T.Koyama, *Grasses of Japan and its neighbouring regions* (1987) (268, Fig. 101), C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (390), C-C Hsu, *Taiwan Grasses* (1975) (476, Pl. 1401), K.M.Matthew, *Illustrations on the Flora of Tamilnadu Carnatic* (1982) (Pl. 855 7 856), H.J.Noltie, *The Grasses of Bhutan* (2000) (669, Fig. 35), H.B.Gilliland, *Grasses of Malaya* (1971) (79, Fig. 10), H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005) (67, Fig. 57), E.E.Henty, *A Manual of the Grasses of New Guinea* (1969) (79, Pl. 29), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (356, Fig. 284), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (206, Pl. 61), J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (1178, Fig. 333), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler, *Grasses of New South Wales*, 4th edn (2008) (235), J.C.Tothill, & J.B.Hacker. *The grasses of southern Queensland* (1983) (214), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), W.L.Wagner et al., *Manual of the Flowering Plants of Hawai'i*, Vol. 2 (1990) (1539, Pl. 227), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (111), F.W.Gould, *The Grasses of Texas* (1975) (222, Fig. 115), A.S.Hitchcock, *Manual of the Grasses of the West Indies* (1936) (114, Fig. 72), S.A.Renouze, *Gramineas de Bolivia* (1998) (329, Fig. 69), S.A.Renouze, *The Grasses of Bahia*, 1984 (79, Fig. 28), J.A.Steyermark et al,

Flora of the Venezuelan Guayana Vol. 8 (2004) (95, Fig. 62), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (357, Fig. 83 & 369, Fig. 85), A. Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (231, Fig. 88), W. Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (204, Fig. 68), A.L. Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970), B. Rosengurt, *Gramineas Uruguayas I* (1970) (238, Fig. 96), G. Harling & C. Persson, *Flora of Ecuador* (2006) (68: 57, Fig. 7 (2001)), E. Judziewicz, *Flora of the Guianas*, 187. *Poaceae* (1990) (195, Fig. 32), S-L Chen et al, *Flora of China*, Illustrations, *Poaceae* (2007) (Fig. 684), E. Hafliger & E. Schultz, *Grass Weeds*, CIBA-GEIGY (2:64(1980)).

Illustrations (Journals): *Ruizia* (13:275, Fig 32a-b (1993)).

Images: D. Sharp & B.K. Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002); H.B. Gilliland et al., *Flora of Malaya Vol. 3 Grasses* (1971);

Derivation (Clifford & Bostock 2007): L. -ica, belonging to. From India.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Annual, caespitose. Basal innovations flabellate. Culms geniculately ascending or decumbent, slender, 15–85 cm long. Culm-internodes elliptical in section. Leaves mostly basal. Leaf-sheaths keeled. Ligule an eciliate membrane, 0.6–1 mm long, truncate. Leaf-blades conduplicate, 5–35 cm long, 2.5–6 mm wide.

Inflorescence. Inflorescence composed of racemes. Peduncle glabrous (at raceme base). Racemes 1–10(–17), single (rarely) or digitate, unilateral, 3.5–15.5 cm long, 3–3.5 mm wide. Rhachis wingless, flattened. Spikelet packing broadside to rhachis, regular, 2 -rowed. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, laterally compressed, 3–5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 1–2.3 mm long, 0.6–0.7 length of upper glume, membranous, 1-keeled, winged on keel, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume elliptic, 1.8–2.9 mm long, 0.7–0.9 length of adjacent fertile lemma, membranous, 1-keeled, winged on keel, 3 -veined (with subsidiaries in keel). Upper glume apex acute.

Florets. Fertile lemma lanceolate in profile, 2.1–3.6 mm long, membranous, 3 -veined (excluding subsidiaries), 0–3 -veined. Lemma midvein with contiguous subsidiary veins (3-veined). Lemma apex acute. Palea 0.9–1 length of lemma, 2 -veined. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with free soft pericarp, ellipsoid, isodiametric, trigonous, concealed by floret, 1–1.3 mm long, black, striate.

$N = 9$ (1 ref TROPICOS). $2n = 18$ (10 refs TROPICOS), or 36 (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe, Africa, Temperate Asia, Tropical Asia, Australasia (*), Pacific, North America, South America.

Region. Northern Europe (*), Southwestern Europe, Southeastern Europe.

Country /Province /State. : Great Britain (*). : France, Portugal, Spain, Azores. : Bulgaria, Italy. **Northern Africa, Macaronesia, West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Middle Atlantic ocean, Western Indian ocean.** Egypt. Azores, Canary Is, Cape Verde, Madeira. Benin, Ghana, Guinea, Ivory Coast, Mali, Nigeria, Senegal, Sierre Leone, Togo, Niger. Burundi, Central African Republic, Cameroon, Gabon, Annobon, Principe & Sao Tome, Bioko, Rwanda, DRC. Ethiopia (inc. Eritrea), Sudan. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Swaziland, Kwazulu-Natal, Eastern Cape. Ascension, St Helena. Aldabra, Mauritius, Madagascar, Rodrigues, Seychelles. **Middle Asia, Caucasus, Western Asia, Arabian Peninsula, China, Eastern Asia.** Tadjikistan. Iran. Oman. China South Central, Hainan, Manchuria, China North-Central, China Southeast, Tibet. Japan, Korea, Kazan-retto, Nansei-Shoto, Ogosawara-shoto, Taiwan. Japan Hokkaido, or Honshu, or Shikoku, or Kyushu. **Indian Subcontinent, Indo-China, Malesia, Papuasia.** Assam, Bangladesh, Eastern Himalaya, Laccadive Is, Pakistan, Sri Lanka, West Himalaya. Andaman Is, Cambodia, Laos, Myanmar, Thailand, Vietnam. Borneo, Java, Lesser Sunda Is, Malaya, Singapore, Moluccas, Philippines, Sulawesi, Sumatra, Christmas I. New Guinea West Papua (Irian Jaya). New Guinea (*), Solomon Is (*). **Australia, New Zealand.** Western Australia (*), Northern Territory (*), South Australia (*), Queensland (*), New South Wales (*), A.C.T. (*), Victoria (*), Lord Howe-Norfolk Is (*). Kermadec Is, New Zealand North I, New Zealand South I. **Southwestern Pacific, South-central Pacific, Northwestern Pacific, North-central Pacific.** Fiji (*), Gilbert Is (*), Nauru (*), Niue (*), New Caledonia (*), Phoenix Archipelago, Samoa (*), Tonga (*), Vanuatu (*), Wallis-Futuna Is (*). Cook Is (*), Line Is (*), Marquesas, Society Is (*), Tuamotu Is (*), Tubuai Is (*). Caroline Is (*), Marcus Is (*), Marianas (*), Marshall Is (*), Wake Is (*). Hawaii (*). **Eastern Canada, Northwest USA, North-central USA, Northeast USA, Southwestern USA, South-central USA, Southeastern USA, Mexico.** New Brunswick. Idaho, Montana, Oregon, Washington. Kansas, Nebraska, South Dakota. Connecticut, Indiana, Maine, Massachusetts, Michigan, Ohio, New Hampshire, New Jersey, New York,

Pennsylvania, Rhode Island, Vermont, West Virginia. Arizona, California, Nevada, Utah. New Mexico, Texas. Central Mexico, Northeast Mexico, Gulf (Mexico), Northwest Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica, Caribbean, Northern South America, Western South America, Brazil, Southern South America.** Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama. Bahamas, Bermuda, Cayman Is, Cuba, Dominican Republic, Haiti, Jamaica, Leeward Is, Windward Islands, Puerto Rico, Trinidad-Tobago, Venezuelan and Netherlands Antilles. French Guiana, Guyana, Surinam, Venezuela. Bolivia, Colombia, Ecuador, Galapagos. Brazil West Central, Brazil Northeast, Brazil North, Brazil Southeast, Brazil South. Argentina Northeast, Argentina Northwest, Chile Central, Paraguay, Uruguay.

TDWG4. Beijing, Shaanxi, Shandong, Tianjin. Anhui, Fujian, Guangdong, Henan, Hunan, Jiangxi, Shanghai, Zhejiang. Guizhou, Hubei, Sichuan, Yunnan. Darjeeling, Bhutan, Sikkim. Manipur, Meghalaya, Nagaland, Tripura. Andhra Pradesh, Bihar, Goa, Karnataka, Kerala. Maharashtra, Orissa, Rajasthan, Tamilnadu, Uttar Pradesh, West Bengal. Himachal Pradesh, Jammu Kashmir. South-West. Darwin & Gulf, Central Australia. Southern. North, Central, South East, Inland. Catamarca, Jujuy, La Rioja, Salta, Tucuman. Buenos Aires, Chaco, Cordoba, Corrientes, Distrito Federal, Entre Rios, Formosa, La Pampa, Misiones, Santa Fe. Distrito Federal, Mexico State, Morelos, Puebla, Tlaxcala. Coahuila, Chihuahua, Durango, Guanajuato, Hidalgo, Neuvo Leon, Queretaro, San Luis Potosi, Tamaulipas, Zacatecas. Veracruz. Sinaloa, Sonora. Colima, Guerrero, Jalisco, Michoacan, Nayarit, Oaxaca. Campeche, Chiapas, Quintana Roo, Tabasco, Yucatan.

Eleusine intermedia (Chiov.) S.M. Phillips. *Kew Bull.*, 27 (2): 269 (1972).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, U. Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ethiopia. **Basionym or Replaced Name:** *Eleusine indica* var. *intermedia* Chiov., *Webbia* 8: 113 (1951)

. T: <Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Corradi 702*, 21 May 1935, Ethiopia: Sidamo Prov.: Tertale di el Dire (FI).

ST: *Corradi 703*, 21 May 1939, Ethiopia: Sidamo Prov.: Tertale, Fortino di El Dire (FI).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. intermedia*. Having affinities with but distinct from other species.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Basal innovations flabellate. Culms erect or geniculately ascending, 60–120 cm long. Culm-internodes elliptical in section. Lateral branches sparse. Leaf-sheaths keeled. Ligule a ciliolate membrane, 0.6–1 mm long. Leaf-blades flat or conduplicate, 15–50 cm long, 4–7 mm wide. Leaf-blade surface pilose, hairy adaxially. Leaf-blade margins smooth (except near tip), glabrous. Leaf-blade apex acute.

Inflorescence. Inflorescence composed of racemes. Racemes 4–15, digitate, distant, spreading or ascending, unilateral, 5–12 cm long. Central inflorescence axis 0–7 cm long. Rhachis wingless, flattened. Spikelet packing broadside to rhachis, regular, 2-rowed. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, laterally compressed, 5–8.3 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes definite.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 1–2.2 mm long, 0.5–0.6 length of upper glume, membranous, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex obtuse or acute. Upper glume oblong, 2–3.6 mm long, 0.8–0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex obtuse or acute.

Florets. Fertile lemma lanceolate in profile or oblong in profile, 2.5–3.8 mm long, membranous, mid-green or grey, 3-veined, 0–3-veined. Lemma midvein simple. Lemma apex obtuse or acute. Palea 0.9–1 length of lemma, 2-veined. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with free soft pericarp, ellipsoid, trigonous, 1.2–1.3 mm long, black, striate.

$2n = 18$ (3 refs TROPICOS).

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa, East tropical Africa. Ethiopia (inc. Eritrea). Kenya.

Eleusine jaegeri Pilger. *Engl. Jahrb.* 43: 93 (1909).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Tanzania. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *Jaeger* 378, Jan. 1907, Tanzania: Ngorongoro (B).

ST: *Uhlig* 758, Nov. 1901, Tanzania: Meru, 2000 m (B; IST: EA).

Illustrations (Books): R.M.Pollhill, F.T.E.A., *Gramineae* (2(1974):265, Fig.72).

Derivation (Clifford & Bostock 2007): in honor of Fritz and Oehler Eduard Jaeger (fl 1906–1907) who collected in East Africa.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Rhizomes short. Basal innovations flabellate. Culms erect, 40–130 cm long. Culm-internodes elliptical in section. Lateral branches fastigiate. Leaf-sheaths keeled. Ligule a ciliate membrane, 0.15–0.25 mm long. Leaf-blades conduplicate, 20–45 cm long, 4–7 mm wide, stiff, light green. Leaf-blade surface glabrous. Leaf-blade margins cartilaginous, scabrous, glabrous. Leaf-blade apex attenuate.

Inflorescence. Inflorescence composed of racemes. Racemes 2–13, digitate, distant, spreading or ascending, unilateral, 4–17 cm long. Central inflorescence axis 3–8 cm long. Rhachis wingless, flattened. Spikelet packing broadside to rhachis, regular, 2 -rowed. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 6–10 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 2–2.8 mm long, 0.6–0.7 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume oblong, 3.1–4.5 mm long, 0.8–0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma oblong in profile, 3.6–5.2 mm long, membranous, dark green, 3 -veined, 0–3 -veined. Lemma midvein simple. Lemma surface scaberulous, rough above. Lemma margins eciliate or pilose (obscurely). Lemma apex acute. Palea 0.9–1 length of lemma, 2 -veined. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with free soft pericarp, ellipsoid or oblong, dorsally compressed, trigonous, 1.6–1.7 mm long, black, rugose.

$2n = 20$ (3 refs TROPICOS).

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa, East tropical Africa. Ethiopia (inc. Eritrea). Kenya, Tanzania, Uganda.

Eleusine kigeziensis S.M. Phillips. *Kew Bull.*, 27(2): 266 (1972).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Uganda. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Uganda: Nyamagana, May 1950, *Purseglove* 3384 (HT: K; IT: EA).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Basal innovations flabellate. Culms erect, 34–60 cm long. Culm-internodes elliptical in section. Lateral branches sparse. Leaf-sheaths keeled. Ligule a ciliate membrane, 0.5 mm long. Leaf-blades conduplicate, 11–31 cm long, 4–6 mm wide. Leaf-blade surface hairy adaxially. Leaf-blade margins smooth (except near tip), glabrous. Leaf-blade apex acute.

Inflorescence. Inflorescence composed of racemes. Racemes 2–6, digitate (or 1 raceme offset), spreading or ascending, unilateral, 7.5–14 cm long. Rhachis wingless, flattened. Spikelet packing broadside to rhachis, regular, 2 -rowed. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 6.1–7.4 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes definite.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 2.5–3.1 mm long, 0.7–0.8 length of upper glume, membranous, 1-keeled, winged on keel, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume oblong, 3.6–4.1 mm long, 0.8–0.9 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined (in keel). Upper glume primary vein conspicuous. Upper glume apex obtuse or acute.

Florets. Fertile lemma lanceolate in profile, 4.1–5 mm long, membranous, dark green or grey, 3 -veined (excluding subsidiaries), 0–3 -veined. Lemma midvein with contiguous subsidiary veins (3-veined). Lemma apex acute. Palea 0.9–1 length of lemma, 2 -veined. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with free soft pericarp, ellipsoid, trigonous, 1.7–2 mm long, black, striate.

$2n = 38$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, Northeast tropical Africa, East tropical Africa. Burundi, Rwanda, DRC. Ethiopia (inc. Eritrea). Uganda.

Eleusine multiflora Hochst. ex A. Rich. *Tent. Fl. Abyss.* 2 :412 (1850).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ethiopia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: W. Schimper, *pl. Schimp. Abyss., sect I, 110*, 20 Sep 1837, Ethiopia: in graminosis et campis Poae Abyssinicae prope Adoam (P; IST: K, MO, US-3298790). LT designated by ?; cited (as type) by McVaugh, *Fl. Novo-Galic.* 14: 157 (1983).

ST: *Quartin Dillon s.n.*, Abyssinia: circa Adoua, nec. non in provincia Chire.

Illustrations (Books): S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (140, Fig 58).

Derivation (Clifford & Bostock 2007): L. multus, many; flos, flower. Spikelets with more florets than those of related species.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Annual, caespitose. Culms geniculately ascending, 15–45 cm long. Culm-internodes elliptical in section. Leaf-sheaths keeled. Ligule a ciliolate membrane or a ciliate membrane, 1 mm long, truncate. Leaf-blades flat or conduplicate, 6–26 cm long, 3–6 mm wide. Leaf-blade margins glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 2–8, digitate, distant, spreading or ascending, oblong or ovate, unilateral, 1.5–3 cm long. Central inflorescence axis 1–3 cm long. Rhachis narrowly winged, flattened. Spikelet packing broadside to rhachis, regular, 2 -rowed. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 7–11 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume oblong, 2.8–4.2 mm long, 1 length of upper glume, membranous, 1-keeled, winged on keel, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume oblong, 2.8–4.2 mm long, 0.8–0.9 length of adjacent fertile lemma, membranous, 1-keeled, winged on keel, 3 -veined. Upper glume apex obtuse or acute.

Florets. Fertile lemma lanceolate in profile or ovate in profile, 3.3–5.2 mm long, membranous, 3 -veined (excluding subsidiaries), 0–3 -veined. Lemma midvein with contiguous subsidiary veins (3–7-veined), scabrous. Lemma apex obtuse or cuspidate, muticous or mucronate. Palea 0.9–1 length of lemma, 2 -veined. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with free soft pericarp, oblong, laterally compressed, sulcate on hilar side, concealed by floret, 1–1.2 mm long, black, granular or rugose.

$2n = 16$ (5 refs TROPICOS), or 18.

Distribution (TDWG). Continent. Europe (*), Africa, Temperate Asia, North America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). Northeast tropical Africa, East tropical Africa, Southern Africa (*). Eritrea, Ethiopia (inc. Eritrea), Sudan. Kenya, Tanzania. Gauteng, Mpumalanga, Free State, Lesotho. Arabian Peninsula. Saudi Arabia, Yemen. Mexico. Central Mexico, Northeast Mexico, Northwest Mexico, Southwest Mexico, Southeast Mexico.

TDWG4. Distrito Federal, Mexico State, Puebla, Tlaxcala. Aguascalientes, Coahuila, Chihuahua, Hidalgo, Queretaro, San Luis Potosi, Zacatecas. Veracruz. Sinaloa. Guerrero, Jalisco, Michoacan, Oaxaca. Chiapas.

Eleusine semisterilis S.M. Phillips. *Kew Bull.*, 27(2): 263 (1972).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Kenya. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Kenya: Kwale Distr., Kinango-Ndavaya road, 16 Nov 1948, *Allan 507* (HT: K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. semi-, half; sterilis, sterile. Terminal spikelets sterile.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial. Culms erect, 100–150 cm long. Culm-internodes elliptical in section. Leaf-sheaths keeled. Ligule a ciliolate membrane, 0.25 mm long. Leaf-blades conduplicate, 19–30 cm long, 4–6 mm wide. Leaf-blade margins scabrous, glabrous. Leaf-blade apex acute.

Inflorescence. Inflorescence composed of racemes. Racemes 8–10, digitate, unilateral, 5–15 cm long. Rhachis wingless, flattened, terminating in a sterile spikelet. Spikelet packing broadside to rhachis, lax, regular, 2 -rowed. Spikelets appressed, solitary. Fertile spikelets sessile.

Sterile Spikelets. Basal sterile spikelets rudimentary or well-developed, 2–4 in number, barren, smaller than fertile.

Apical sterile spikelets barren, 3–5 in number.

Fertile Spikelets. Spikelets comprising 4–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, laterally compressed, 5–6 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume oblong, 1.7–2.5 mm long, 0.7–1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume elliptic, 2.3–2.4 mm long, 0.6–0.7 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile lemma oblong in profile, 3.2–3.8 mm long, membranous, dark brown, 3 -veined, 0–3 -veined. Lemma midvein simple. Lemma margins eciliate or pilose (obscurely). Lemma apex obtuse. Palea 0.9–1 length of lemma, 2 -veined. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with free soft pericarp, obovoid, dorsally compressed, concavo-convex, 1–1.2 mm long, black, granular.

Distribution (TDWG), Continent. Africa.

Country /Province /State. East tropical Africa. Kenya.

TDWG4.

Eleusine tristachya (Lam.) Lam. *Illustr.* 1: 203 (1791).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Uruguay. **Basionym or Replaced Name:** *Cynosurus tristachyos* Lam., *Encycl.* 2: 188 (1786). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: T: *Commerson s.n.*, Uruguay: Montevideo.

Illustrations (Books): H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (357, Fig. 287), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (570, Fig. 114), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (235), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (179, Fig. 27), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (111), S.A.Renvoize, *Gramineas de Bolivia* (1998) (329, Fig. 69), E.G.Nicora, *Los Generos de Gramineas de America Austral* (1987) (369, Fig. 127), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (357, Fig. 83 & 369, Fig. 85), A.Burkat, *Flora Ilustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (231, Fig. 88), A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (424, Fig. 110), M.N.Correa, *Flora Patagonica* Parte III, Gramineae (1978) (504, Fig. 342), B.Rosengurt, *Gramineas Uruguayas I* (1970) (238, Fig. 96).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): Gk. treis, three; stachys, ear of corn. Arranged in threes as of spikelets or racemes.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, short-lived, caespitose. Culms geniculately ascending or decumbent, slender, 10–45 cm long. Culm-internodes elliptical in section. Leaves mostly basal. Leaf-sheaths keeled. Ligule a ciliolate membrane. Leaf-blades 6–25 cm long, 1–4 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 2–3, digitate, linear or oblong, unilateral, 1–4 cm long, 10–16 mm wide. Rhachis broadly winged, with rounded midrib. Spikelet packing broadside to rhachis. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 6–13 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 5–9 mm long, 4–6 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet, similar to fertile lemma in texture. Lower glume lanceolate, 1.5–2 mm long, 0.5 length of upper glume, membranous, 1-keeled, 1–3 -veined. Lower glume apex acute. Upper glume elliptic, 3–4 mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 5–7 -veined. Upper glume apex acute.

Florets. Fertile lemma ovate, 4–5 mm long, membranous, keeled, 3 -veined (excluding subsidiaries), 0–3 -veined. Lemma midvein with contiguous subsidiary veins (3-veined). Lemma apex acute. Palea 0.66 length of lemma, 2 -veined. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with free soft pericarp, orbicular, isodiametric, trigonous, concealed by floret, 2 mm long, dark brown, rugose. Embryo 0.3–0.4 length of caryopsis. Hilum punctiform.

Distribution (TDWG). Continent. Europe, Africa, Temperate Asia, Australasia (*), North America, South America.

Region. Southwestern Europe, Southeastern Europe.

Country /Province /State. : France, Spain, Azores. : Italy. **Macaronesia, Southern Africa** (*). Azores, Madeira. Gauteng, Free State, Lesotho, Northern Cape, Western Cape. **Caucasus.** Transcaucasus. **Australia, New Zealand.** South Australia (*), Queensland (*), New South Wales (*), A.C.T. (*), Victoria (*). New Zealand North I. **Southwestern USA, Mexico.** California. Central Mexico. **Western South America, Brazil, Southern South America.** Bolivia, Colombia. Brazil Northeast, Brazil Southeast, Brazil South. Argentina Northeast, Argentina Northwest, Chile North, Chile Central, Chile South, Juan Fernandez Is, Paraguay, Uruguay.

TDWG4. Southern. South East. Coast, Tablelands, Western Slopes. Minas Gerais, Rio de Janeiro, Espirito Santo, Sao Paulo Parana, Catarina, Rio Grande do Sul. Catamarca, Jujuy, Mendoza, Salta, Santiago del Estero, San Juan, San Luis, Tucuman. Buenos Aires, Chaco, Cordoba, Corrientes, Distrito Federal, Entre Rios, Formosa, La Pampa, Misiones, Santa Fe. Antofagasta, Atacama. Valparaiso, Santiago, Maule, Biobio, La Araucania. Los Lagos. Mexico State.

Elionurus barbiculmis Hack. ex Scribn. *Coult. Bot. Gaz.* 13: 296 (1888).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: LT: *Leemmon* 2926, 1882, USA: Arizona (US-728333). LT designated by Hitchcock, *Man. Grass. U.S.* 847, but without designating a specific sheet.

ST: *Wright 804 ex parte*, USA: Texas: W. Texas

ST: *Wright 2106*, USA: New Mexico

ST: *Rothbrock 638*, (USA: Arizona).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (686), F.W.Gould, *The Grasses of Texas* (1975) (616, Fig. 326).

Derivation (Clifford & Bostock 2007): L. barba, beard; culmus, stem. Culms hairy.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Phacelurus Group.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 40–90 cm long. Culm-internodes distally pubescent (below nodes). Culm-nodes glabrous. Lateral branches lacking or sparse. Ligule a fringe of hairs, 1 mm long. Leaf-blades filiform, involute, 16–30 cm long, 1–2 mm wide. Leaf-blade surface ribbed, pilose, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Peduncle hirsute above. Racemes 1, single, 5–10 cm long. Rhachis fragile at the nodes, subterete, villous on surface. Rhachis internodes linear. Rhachis internode tip oblique, flat, with simple rim. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, linear, flattened, villous.

Sterile Spikelets. Companion sterile spikelets well-developed, male, elliptic, dorsally compressed, 4–6.5 mm long, shorter than fertile, deciduous with the fertile. Companion sterile spikelet glumes chartaceous, pilose. Companion sterile spikelet lemmas 2, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 4.5–7 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus cuneate, pubescent, base obtuse, attached obliquely.

Glumes. Glumes dissimilar, reaching apex of florets, firmer than fertile lemma. Lower glume ovate, 1 length of spikelet, chartaceous, 2-keeled. Lower glume surface villous. Lower glume apex acuminate. Upper glume lanceolate, 1-keeled. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret elliptic, hyaline. Fertile lemma oblong, hyaline, without keel, 3 -veined, 0–3 -veined. Palea absent or minute.

Flower and Fruit. Anthers 3.

$2n = 20$.

Distribution (TDWG). Continent. North America.

Country /Province /State. Southwestern USA, South-central USA, Mexico. Arizona. Texas. Central Mexico, Northeast Mexico, Gulf (Mexico), Northwest Mexico, Southwest Mexico.

TDWG4. Mexico State, Puebla. Chihuahua, Durango, Guanajuato, Zacatecas. Baja California, Baja California Sur, Sinaloa, Sonora. Guerrero.

Elionurus bilinguis (Trin.) Hack. *Mart. Fl. Bras.* 2, 3: 308 (1883).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. **Basionym or Replaced Name:** *Andropogon bilinguis* Trin., *Mem. Acad. Imp. Sci. St.-Petersbourg, Ser. 6, Sci. Math.* 2(3): 262 (1832). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *G.H. von Langsdorff s.n.*, Brasilia: in petrosis S. da Chapada (LE-TRIN-0168.01; IT: US-76450 (fragm.)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. bis, twice; lingua, tongue. The apex of the lower glume is bifid.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Phacelurus Group.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths pallid. Basal innovations extravaginal. Culms erect, 40–80 cm long. Lateral branches ample. Leaf-sheaths without keel, antrorsely scabrous. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades 15–30 cm long, 3–4 mm wide, glaucous. Leaf-blade surface scabrous, rough adaxially. Leaf-blade margins scabrous.

Inflorescence. Synflorescence compound, scanty.

Inflorescence composed of racemes, subtended by a spatheole, embraced at base by subtending leaf. Spatheole linear, 7–9 cm long. Racemes 1, single, 4–6 cm long. Rhachis fragile at the nodes, subterete, villous on surface. Rhachis internodes linear. Rhachis internode tip oblique, flat, with simple rim. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, linear, flattened, villous.

Sterile Spikelets. Companion sterile spikelets well-developed, male, lanceolate, dorsally compressed, 3.5–5.5 mm long, shorter than fertile, deciduous with the fertile. Companion sterile spikelet glumes chartaceous, glabrous or villous, ciliate on margins, lobed, 2 -fid, acuminate, awned, one glume awned. Companion sterile spikelet lemmas 2, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 4–6 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus cuneate, pubescent, base obtuse, attached obliquely.

Glumes. Glumes dissimilar, reaching apex of florets, firmer than fertile lemma. Lower glume ovate, 1 length of spikelet, chartaceous, 2-keeled, 7 -veined. Lower glume primary vein ciliate. Lower glume surface glabrous or villous. Lower glume apex lobed, 2 -fid, awned, 2 -awned, awn 3–7 mm long. Upper glume lanceolate, 1-keeled. Upper glume surface pilose. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret elliptic, hyaline, ciliolate on margins. Fertile lemma oblong, hyaline, without keel, 3 -veined, 0–3 -veined. Lemma margins ciliolate. Palea 0.25 length of lemma.

Flower and Fruit. Anthers 3, 3 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil. Brazil West Central, Brazil North. Mato Grosso.

Elionurus ciliaris H. B. & K. *Nov. Gen. et Sp.* 1: 193 t. 63 (1815).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Venezuela. **Basionym or Replaced Name:** *Elionurus pobeguinii* Stapf, *Journ. de Bot.* 1905, 99. (1905). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *Humboldt & Bonpland s.n.*, May, Venezuela: along the Orinoco (P). LT designated by ?; cited by McVaugh, *Fl. Novo-Galic.* 14: 159 (1983).

Illustrations (Books): S.A.Renvoize, *Gramineas de Bolivia* (1998) (613, Fig 146).

Derivation (Clifford & Bostock 2007): L. cilium, eyelid; -are, pertaining to. Glumes or lemmas ciliate on nerves or margins.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Phacelurus Group.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 150–200 cm long. Lateral branches ample. Leaves basal and cauline. Ligule a ciliate membrane. Leaf-blades convolute, 5–10 cm long, 2–4 mm wide, aromatic.

Inflorescence. Synflorescence compound.

Inflorescence composed of racemes, terminal and axillary, subtended by an inflated leaf-sheath, embraced at base by subtending leaf. Peduncle 5–13 cm long. Racemes 1, single, flexuous, 5–8 cm long. Rhachis fragile at the nodes, subterete, puberulous on surface, ciliate on margins. Rhachis internodes linear, 2–3 mm long. Rhachis internode tip oblique, flat, with simple rim. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, filiform, flattened, 2–3 mm long, pubescent.

Sterile Spikelets. Companion sterile spikelets well-developed, male, lanceolate or ovate, dorsally compressed, 3 mm long, shorter than fertile, deciduous with the fertile. Companion sterile spikelet glumes chartaceous, keeled, 5 -veined, glabrous, ciliate on margins, acuminate, mucous. Companion sterile spikelet lemmas 2, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate or oblong, dorsally compressed, 7–8 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus square, 1 mm long, pubescent, base obtuse, attached obliquely.

Glumes. Glumes dissimilar, reaching apex of florets, firmer than fertile lemma. Lower glume ovate, 1 length of spikelet, chartaceous, with oil streaks, 2-keeled, 5 -veined. Lower glume surface glabrous or villous. Lower glume margins ciliate (1mm). Lower glume apex dentate, 2 -fid, acuminate. Upper glume lanceolate, 1-keeled, 3 -veined. Upper glume surface pubescent. Upper glume margins ciliate. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret lanceolate, 4 mm long, hyaline, 2 -veined, ciliate on margins. Fertile lemma lanceolate, 3 mm long, hyaline, without keel, 1–3 -veined, 0–3 -veined, one-veined or several-veined. Lemma margins ciliate. Palea absent or minute.

Flower and Fruit. Anthers 3, 2–2.5 mm long.

Distribution (TDWG). Continent. Africa, North America, South America.

Country /Province /State. West tropical Africa, West-central tropical Africa, Northeast tropical Africa. Benin, Ghana, Guinea, Ivory Coast, Nigeria, Sierre Leone, Togo. Mexico. Central Mexico, Northeast Mexico, Gulf (Mexico), Southwest Mexico. Mesoamerica, Northern South America, Western South America, Brazil, Southern South America. Panama. Venezuela. Bolivia, Colombia. Paraguay.

TDWG4. Salta, Santiago del Estero, San Luis, Tucuman. Cordoba, Corrientes, Entre Rios, Misiones, Santa Fe. Mexico State, Morelos, Puebla. Guanajuato. Veracruz. Colima, Guerrero, Jalisco, Michoacan.

Elionurus citreus (R.Br.) Munro ex Benth. *Fl. Austral.* 6: 510 (1878).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)* (as *Elyonurus*), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Australia. **Basionym or Replaced Name:** *Andropogon citreus* R. Br., *Prod.* 1: 203 (1810). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: "(T.) Littora novae Hollandiae intra tropicum.", *Brown 6176* (HT: BM).

Illustrations (Books): E.E.Henty, *A Manual of the Grasses of New Guinea* (1969) (82, Pl. 30), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler, *Grasses of New South Wales*, 4th edn (2008) (236), J.C.Tothill, & J.B.Hacker. *The grasses of southern Queensland* (1983) (216), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (248, Fig. 38), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Derivation (Clifford & Bostock 2007): L. pure yellow. Spikelets invested in yellow hairs.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Phacelurus Group.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 50–100 cm long. Culm-nodes glabrous. Lateral branches sparse. Leaves mostly basal, much reduced on the culm. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs. Leaf-blades flexuous, 20–40 cm long, 2–5 mm wide, aromatic. Leaf-blade surface glabrous.

Inflorescence. Inflorescence composed of racemes, terminal and axillary, subtended by an inflated leaf-sheath, embraced at base by subtending leaf. Racemes 1, single, 3–12 cm long. Rhachis fragile at the nodes, subterete, pubescent on surface, ciliate on margins. Spikelet packing regular, 2 -rowed. Rhachis internodes linear. Rhachis internode tip oblique, flat, with simple rim. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, filiform, flattened, pubescent.

Sterile Spikelets. Companion sterile spikelets well-developed, comprising 2 subequal glumes without lemmas, lanceolate, asymmetrical, 8–10 mm long, shorter than fertile, deciduous with the fertile. Companion sterile spikelet glumes chartaceous, keeled, 3–5 -veined, ciliate on margins, acuminate, muticous.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate or oblong, dorsally compressed, 10–12 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus cuneate, 1.5 mm long, pubescent, base obtuse, attached obliquely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume ovate, 10–12 mm long, 1 length of spikelet, chartaceous, 2-keeled, 9 -veined. Lower glume margins ciliate. Lower glume apex lobed, 2 -fid, acuminate. Upper glume ovate, 5–8 mm long, 0.5–0.66 length of spikelet, 1-keeled, 3 -veined. Upper glume surface puberulous, hairy below. Upper glume margins ciliate. Upper glume apex acuminate.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret lanceolate, 4–6 mm long, hyaline, 0 -veined, without midvein, without lateral veins, acute. Fertile lemma lanceolate, 3–5 mm long, hyaline, without keel, 0 -veined, 0–3 -veined, without veins. Lemma apex acute. Palea absent or minute.

Flower and Fruit. Anthers 3.

Distribution (TDWG), Continent. Tropical Asia, Australasia.

Country /Province /State. **Malesia, Papuaia.** New Guinea, Solomon Is. **Australia.** Western Australia, Northern Territory, Queensland, New South Wales.

TDWG4. Darwin & Gulf. North, Central, South East, Inland.

Elionurus elegans Kunth. *Rev. Gram.* 1: 161 (1829).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Senegal. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *Perrottet 897*, Senegal (P).

ST: *Leprieur 30*, Senegal (P).

ST: *Barter 993*, Nigeria (P).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. elegant*. Inflorescence attractive.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Phacelurus Group.

Habit, Vegetative Morphology. Annual. Culms erect, 30–60 cm long, 3 -noded. Culm-nodes bearded. Lateral branches lacking. Leaves mostly basal. Ligule a ciliolate membrane. Leaf-blades flat or involute, 5–7.5 cm long, 1–2 mm wide, flaccid. Leaf-blade surface glabrous or pilose, sparsely hairy.

Inflorescence. Inflorescence composed of racemes, exserted. Racemes 1, single, straight or arcuate, 6–10 cm long. Rhachis fragile at the nodes, subterete, glabrous on surface, ciliate on margins. Rhachis internodes linear, 2 mm long. Rhachis internode tip oblique, flat, with simple rim. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, linear, flattened, ciliate.

Sterile Spikelets. Companion sterile spikelets well-developed, male, lanceolate or ovate, dorsally compressed, 4 mm long, shorter than fertile, deciduous with the fertile. Companion sterile spikelet glumes chartaceous, keeled, winged on keels, glabrous, acuminate, awned, both glumes awned, with 3–4 mm long awn. Companion sterile spikelet lemmas 2, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate or oblong, dorsally compressed, 5 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus cuneate, pubescent, base obtuse, attached obliquely.

Glumes. Glumes dissimilar, reaching apex of florets, firmer than fertile lemma. Lower glume ovate, 1 length of spikelet, chartaceous, 2-keeled. Lower glume surface glabrous, with marginal tufts of hair. Lower glume apex entire or lobed, 2 -fid, setaceously acuminate. Upper glume lanceolate, membranous, 1-keeled, 3 -veined. Upper glume surface puberulous. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret lanceolate, 3 mm long, hyaline, 2 -veined. Fertile lemma lanceolate, 2 mm long, hyaline, without keel, 2 -veined, 0–3 -veined, one-veined. Lemma apex dentate, 3 -fid. Palea absent or minute.

Flower and Fruit. Anthers 3, 2 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, Northeast tropical Africa. Gambia, Ghana, Guinea-Bissau, Guinea, Mali, Nigeria, Senegal, Togo, Niger.

Elionurus euchaetus Adjanoh. & W. D. Clayt. *Adansonia, n. s.*, 4: 199 (1964).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Ivory Coast. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Adjanohoum 237A*, Ivory Coast (K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. eu-, well; chaete, bristle. The lower glume of the sessile spikelet has a long bifid awn and that of the stalked spikelet a long single awn.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Phacelurus Group.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 70–150 cm long. Culm-internodes distally pubescent. Culm-nodes bearded. Leaf-sheaths pubescent. Ligule a fringe of hairs. Leaf-blades flat or involute, 20–30 cm long, 2–4 mm wide. Leaf-blade surface pilose, sparsely hairy, hairy on both sides.

Inflorescence. Synflorescence compound, paniculate, 30–60 cm long.

Inflorescence composed of racemes, terminal and axillary, subtended by a spatheole. Spatheole linear, 2–4 cm long. Peduncle scaberulous above. Racemes 1, single, 7–8 cm long. Rhachis fragile at the nodes, subterete, villous on surface. Rhachis hairs 3–4 mm long. Rhachis internodes linear, 6 mm long. Rhachis internode tip oblique, flat, with simple rim. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, linear, flattened, villous, tip rectangular.

Sterile Spikelets. Companion sterile spikelets well-developed, male, lanceolate, dorsally compressed, 6 mm long, shorter than fertile, deciduous with the fertile. Companion sterile spikelet glumes chartaceous, 7 -veined, glabrous, acuminate, awned, both glumes awned, with 6–20 mm long awn. Companion sterile spikelet lemmas 2, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 9.5 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus linear, 2.5 mm long, pilose, base acute, attached obliquely.

Glumes. Glumes dissimilar, reaching apex of florets, firmer than fertile lemma. Lower glume ovate, 1 length of spikelet, chartaceous, with oil streaks, 2-keeled, 9 -veined. Lower glume margins ciliate. Lower glume apex lobed, 2 -fid, awned, 2 -awned, awn 20 mm long. Upper glume lanceolate, 1-keeled, 3 -veined. Upper glume margins ciliate. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret lanceolate, 5.5 mm long, hyaline, 2 -veined, ciliolate on margins. Fertile lemma lanceolate, 4.5 mm long, hyaline, without keel, 3 -veined, 0–3 -veined. Palea absent or minute.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa. Burkina, Ivory Coast.

Elionurus hensii K. Schum. *Engl. Jahrb.* 24: 326 (1897).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from DRC. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Congogebiet: auf trockenem, felsigen Orten bei Kiengi Lutete, Mar, *Hens 285*.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Hens, Belgian cleric who collected in Zaire.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Phacelurus Group.

Habit, Vegetative Morphology. Perennial. Culms 60–100 cm long. Lateral branches ample. Ligule a fringe of hairs. Leaf-blades flat, 7–10 cm long, 2–3 mm wide. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes, terminal and axillary, subtended by an inflated leaf-sheath, exerted. Racemes 1, single, 3–8 cm long. Rhachis fragile at the nodes, subterete, villous on surface. Rhachis hairs 3–4 mm long. Rhachis internodes linear, 3 mm long. Rhachis internode tip oblique, flat, with simple rim. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, linear, flattened, 2 mm long, villous.

Sterile Spikelets. Companion sterile spikelets well-developed, containing empty lemmas, lanceolate, dorsally compressed, 3–4 mm long, as long as fertile, deciduous with the fertile. Companion sterile spikelet glumes chartaceous, 2–3 -veined, ciliolate on margins, acuminate, awned, one glume awned, with 1.5–2 mm long awn. Companion sterile spikelet lemmas 1, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 3–4 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus cuneate, bearded, base obtuse, attached obliquely.

Glumes. Glumes dissimilar, reaching apex of florets, firmer than fertile lemma. Lower glume oblong, 1 length of spikelet, chartaceous, with oil streaks, 2-keeled. Lower glume primary vein ciliate. Lower glume intercarinal veins distinct, 6 in number. Lower glume surface glabrous. Lower glume hairs 1–2 mm long. Lower glume apex dentate, 2 -fid, awned, 2 -awned, awn 2 mm long, awn ciliate. Upper glume lanceolate, membranous, 1-keeled, 3 -veined. Upper glume surface pubescent. Upper glume margins ciliolate. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, 3–4 mm long, hyaline, 2 -veined, ciliolate on margins, acute. Fertile lemma oblong, 2 mm long, hyaline, without keel, 3 -veined, 0–3 -veined. Lemma surface glabrous. Lemma apex acute. Palea absent or minute.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, South tropical Africa. Gabon, DRC.

Elionurus hirtifolius Hack. *DC. Monog. Phan.* 6: 341 (1889).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Nigeria. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Barter 1176*, Nigeria: Northern Nigeria (W; IT: K).

Illustrations (Books): H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962) (279, Fig. 214).

Derivation (Clifford & Bostock 2007): *L. hirtus*, hairy; folium, leaf. Leaf-blades hairy.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Phacelurus Group.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths pubescent or villous, persistent and investing base of culm. Basal innovations extravaginal. Culms erect, 30–60 cm long, 3–4 -noded. Culm-nodes bearded. Lateral branches lacking. Leaves mostly basal. Leaf-sheaths glabrous on surface or pilose. Ligule a ciliolate membrane. Leaf-blades 5–10 cm long, 2–3 mm wide, stiff. Leaf-blade surface ribbed, scaberulous, rough abaxially, glabrous or hirsute.

Inflorescence. Inflorescence composed of racemes, subtended by an inflated leaf-sheath, exerted. Racemes 1, single, straight or arcuate, 3.5–6.5 cm long. Rhachis fragile at the nodes, subterete, villous on surface. Rhachis hairs 3–4 mm long. Rhachis internodes linear, 3–4 mm long. Rhachis internode tip oblique, flat, with simple rim. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, linear, flattened, villous.

Sterile Spikelets. Companion sterile spikelets well-developed, male, lanceolate, dorsally compressed, 5–6 mm long, as long as fertile, deciduous with the fertile. Companion sterile spikelet glumes chartaceous, keeled, 4–5 -veined, ciliate on margins, acuminate, awned, one glume awned or both glumes awned, with 3–5 mm long awn. Companion sterile spikelet lemmas 2, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate or ovate, dorsally compressed, acuminate, 6–7 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus cuneate, pubescent, base obtuse, attached obliquely.

Glumes. Glumes dissimilar, reaching apex of florets, firmer than fertile lemma. Lower glume ovate, 1 length of spikelet, chartaceous, 2-keeled, 6 -veined. Lower glume surface glabrous, with marginal tufts of hair. Lower glume apex entire or lobed, 2 -fid, setaceously acuminate, awned, 2 -awned, awn 1–3 mm long. Upper glume lanceolate, membranous, 1-keeled, 3 -veined. Upper glume surface pubescent. Upper glume margins ciliolate. Upper glume apex acute, mucous or mucronate.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, hyaline, 2 -veined, ciliolate on margins, acute. Fertile lemma oblong, 3 mm long, hyaline, without keel, 3 -veined, 0–3 -veined. Lemma surface glabrous. Lemma apex acute. Palea absent or minute.

Flower and Fruit. Anthers 3, 3–4 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, West-central tropical Africa, Northeast tropical Africa. Ghana, Nigeria. Central African Republic.

Elionurus lividus Hack. *DC. Monog. Phan.* 6: 337 (1889).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Paraguay. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IST: *Balansa 294*, 9 Nov 1874, Paraguay: in campis ad Caaguaza (K, SI).

IST: *Balansa 294a*, Paraguay: Cordill. de Peribebuy (K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. leaden. Spikelets grey or purple.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Phacelurus Group.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms erect, 100–120 cm long. Lateral branches sparse. Leaf-sheaths smooth or antrorsely scabrous. Ligule a fringe of hairs. Leaf-blades 20–30 cm long, 3–7 mm wide. Leaf-blade surface scabrous, rough adaxially. Leaf-blade margins scabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Peduncle antrorsely scabrous above. Racemes 1, single, 7–9 cm long. Rhachis fragile at the nodes, subterete, pilose on surface. Rhachis internodes linear, 3 mm long, 0.66 length of fertile spikelet. Rhachis internode tip oblique, flat, with simple rim. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, linear, flattened, 3.5–4 mm long, ciliate.

Sterile Spikelets. Companion sterile spikelets well-developed, male, elliptic, dorsally compressed, 5–6 mm long, shorter than fertile, deciduous with the fertile. Companion sterile spikelet glumes chartaceous, pilose. Companion sterile spikelet lemmas 2, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 6–8 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus cuneate, 1.5 mm long, bearded, base obtuse, attached obliquely.

Glumes. Glumes dissimilar, reaching apex of florets, firmer than fertile lemma. Lower glume ovate, 1 length of spikelet, chartaceous, 2-keeled. Lower glume primary vein ciliate. Lower glume surface pilose. Lower glume apex acute. Upper glume lanceolate, 1-keeled. Upper glume primary vein ciliate. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret elliptic, hyaline. Fertile lemma oblong, hyaline, without keel, 3 -veined, 0–3 -veined. Palea absent or minute.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. South America.

Country /Province /State. Southern South America. Paraguay.

Elionurus muticus (Spreng.) Kuntze. *Rev. Gen.* 3, 2: 350 (1898).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Uruguay. **Basionym or Replaced Name:** *Lycurus muticus* Spreng., *Syst. Veg.* 4(2): 32 (1827). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *F. Sellow s.n.*, Uruguay: Montevideo (B (destroyed)).

Recent Synonyms: *Elionurus rostratus* Nees, *Agrost. Bras.* 357. (1829). *Elionurus argenteus* Nees, *Fl. Afr. Austr.* 95. (1841).

Illustrations (Books): R.M.Pollhill, F.T.E.A., *Gramineae* (3(1982):836, Fig. 195), G.V.Pope et al., *Flora Zambesiaca* 10, L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (Pl. 27 as *E. argenteus*), M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (130, Fig 76), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (358, Fig 147), T.A.Cope, in M.Thulin, *Poaceae* (Gramineae). *Flora of Somalia* (1995) (267, Fig 160), S.A.Renvoize, *Gramineas de Bolivia* (1998) (Fig. 146), J.A.Steyermark et al, *Flora of the Venezuelan*

Guayana Vol. 8 (2004) (96, Fig. 63), E.G.Nicora, *Los Generos de Gramineas de America Austral* (1987) (536, Fig. 194 as *Elyonurus*), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (1246, 1250 & 1252, Fig. 245 & as *Elyonurus muticus* Figs 246 & 247 as *Elyonurus muticus* and *rostratus*), A.Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (454, Fig. 193), A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (586, Fig. 157 as *Elyonurus*), M.N.Correa, *Flora Patagonica* Parte III, Gramineae (1978) (553, Fig. 372 as *Elyonurus*), B.Rosengurt, *Gramineas Uruguayas I* (1970) (174, Fig. 69 as *E. candidus* & *E. candidus* var. *bisetosus* & *E. latiflorus* & *E. rostratus*), E.Judziwicz, *Flora of the Guianas*, 187. *Poaceae* (1990) (198, Fig 33), R.Pilger, *Die Natürlichen Pflanzenfamilien* 14e (1940) (as *E. rostratus*).

Illustrations (Journals): *Ruizia* (13:453 Fig 61e-f (1993)).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. blunt. Lacking awns or lemmas and/or glumes truncate.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Phacelurus Group.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Butt sheaths herbaceous or coriaceous, glabrous or pubescent, persistent and investing base of culm, with compacted dead sheaths or fibrous dead sheaths. Culms erect, 15–100 cm long. Lateral branches lacking or sparse. Leaves mostly basal. Ligule a ciliate membrane. Leaf-blades filiform, involute, 5–30 cm long, 1–2 mm wide, aromatic. Leaf-blade apex attenuate, filiform or hardened.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, 4–14 cm long. Rhachis fragile at the nodes, subterete, villous on surface. Rhachis internodes linear. Rhachis internode tip oblique, flat, with simple rim. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, linear, flattened, villous.

Sterile Spikelets. Companion sterile spikelets well-developed, male, lanceolate, dorsally compressed, 4–7 mm long, shorter than fertile, deciduous with the fertile. Companion sterile spikelet glumes chartaceous, pubescent or pilose or villous, acuminate, mucous or mucronate. Companion sterile spikelet lemmas 2, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 5–9.5 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus cuneate, 1–1.5 mm long, pubescent, base obtuse, attached obliquely.

Glumes. Glumes dissimilar, reaching apex of florets, firmer than fertile lemma. Lower glume ovate, 1 length of spikelet, chartaceous, with oil streaks, 2-keeled, 6–8 -veined. Lower glume surface villous. Lower glume margins ciliate. Lower glume apex entire or lobed, 2 -fid, setaceously acuminate (up to 7mm). Upper glume lanceolate, 1-keeled, 3–5 -veined. Upper glume primary vein ciliate. Upper glume surface pubescent. Upper glume margins ciliate. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret elliptic, hyaline, 2 -veined, ciliate on margins. Fertile lemma oblong, hyaline, without keel, 3 -veined, 0–3 -veined. Lemma margins ciliate. Palea absent or minute.

Distribution (TDWG), Continent. Africa, Temperate Asia, North America, South America.

Country /Province /State. **West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa.** Burkina, Guinea, Nigeria, Sierre Leone. Cameroon, Gabon, Rwanda, DRC. Ethiopia (inc. Eritrea), Somalia. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Lesotho, Northern Cape, Eastern Cape. **Arabian Peninsula.** Yemen. **Mexico.** Central Mexico. **Northern South America, Western South America, Brazil, Southern South America.** Guyana, Surinam. Bolivia, Colombia, Peru. Brazil West Central, Brazil Northeast, Brazil North, Brazil Southeast, Brazil South. Argentina Northeast, Argentina South, Argentina Northwest, Paraguay, Uruguay.

TDWG4. Catarina, Rio Grande do Sul. Catamarca, Jujuy, Mendoza, Salta, San Luis, Tucuman. Buenos Aires, Chaco, Cordoba, Corrientes, Entre Rios, Formosa, La Pampa, Misiones, Santa Fe. Chubut, Río Negro. Puebla.

Elionurus planifolius S.A. Renvoize. *Kew Bull.*, 32(3): 669 (1978).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *R.M. Harley, R. Souza, R. de Castro & A. Ferreira 10852*, 26 Oct 1968, Brazil: Matto Grosso, Expedition Base Camp

at 12:49'S, 51:46'W, R12, ca. 5 km S of base camp, burnt cerrado. Tufted herb with erect stems and strict mid green leaves, old leaf sheaths buff, inflorescences silvery grey (K; IT: MO-2032830).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. planus*, flat; folium, leaf. Leaf-blades flat.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Phacelurus Group.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Butt sheaths persistent and investing base of culm, with compacted dead sheaths. Culms erect, 40–80 cm long. Lateral branches lacking. Ligule a fringe of hairs. Leaf-blades 20–40 cm long, 2–4(–5) mm wide. Leaf-blade apex obtuse.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, 8–10 cm long, 3–4 mm wide. Rhachis fragile at the nodes, subterete, villous on surface. Rhachis internodes linear. Rhachis internode tip oblique, flat, with simple rim. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, linear, flattened, villous.

Sterile Spikelets. Companion sterile spikelets well-developed, male, elliptic, dorsally compressed, 4.5 mm long, shorter than fertile, deciduous with the fertile. Companion sterile spikelet glumes chartaceous, pilose. Companion sterile spikelet lemmas 2, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 5 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus cuneate, pubescent, base obtuse, attached obliquely.

Glumes. Glumes dissimilar, reaching apex of florets, firmer than fertile lemma. Lower glume ovate, 1 length of spikelet, chartaceous, 2-keeled, 9 -veined. Lower glume surface villous. Lower glume apex obtuse. Upper glume lanceolate, 1-keeled. Upper glume surface hispid. Upper glume apex obtuse.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret elliptic, 3.5 mm long, hyaline, 0 -veined, without midvein, without lateral veins. Fertile lemma oblong, 3.3 mm long, hyaline, without keel, 3 -veined, 0–3 -veined. Palea absent or minute.

Flower and Fruit. Anthers 3, 2.5 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Northern South America, Western South America, Brazil, Southern South America. Bolivia. Brazil West Central, Brazil Southeast.

Mato Grosso, Goias, Minas Gerais, Rio de Janeiro, Espirito Santo, Sao Paulo Parana.

Elionurus platypus (Trin.) Hack. *Bolet. Soc. Broter.* 3: 135 (1885).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Sierra Leone. **Basionym or Replaced Name:** *Andropogon platypus* Trin., *Mem. Acad. Imp. Sci. St.-Petersbourg, Ser. 6, Sci. Math.* 2(3): 261 (1832)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Coll. unknown 27*, Sierra Leone (LE).

Illustrations (Books): W. Robyns (1929 and 1934). *Flora Agrostologique du Congo Belge et du Ruanda-Urundi, I. Maydees et Andropogonees and II. Panicees.* Bruxelles, Goemaere (75, Pl 5, as *E. brazzae*).

Derivation (Clifford & Bostock 2007): *Gk. platys*, broad; *pous*, foot. Callus of sessile spikelet broad with few hairs.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Phacelurus Group.

Habit, Vegetative Morphology. Perennial, caespitose. Basal innovations flabellate. Culms erect, 60–100 cm long, 4 -noded. Lateral branches ample. Leaves basal and cauline. Leaf-sheaths keeled, glabrous on surface. Ligule an eciliate membrane or a ciliolate membrane. Leaf-blades 5–10 cm long, 2–4 mm wide, stiff. Leaf-blade surface glabrous. Leaf-blade margins scabrous. Leaf-blade apex acute.

Inflorescence. Synflorescence compound.

Inflorescence composed of racemes, terminal and axillary, exserted. Racemes 1, single, flexuous, 6–8 cm long. Rhachis fragile at the nodes, subterete, pilose on surface. Rhachis hairs 2 mm long. Rhachis internodes linear, 3 mm long. Rhachis internode tip oblique, flat, with simple rim. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, filiform, flattened, 2 mm long, villous.

Sterile Spikelets. Companion sterile spikelets well-developed, male, lanceolate, dorsally compressed, 4–5 mm long, shorter than fertile, deciduous with the fertile. Companion sterile spikelet glumes chartaceous, keeled, 5 -veined, glabrous, ciliate on margins, acute, mucous. Companion sterile spikelet lemmas 2, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret

male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 7–8 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus oblong, 2 mm long, pubescent, base obtuse, attached obliquely.

Glumes. Glumes dissimilar, reaching apex of florets, firmer than fertile lemma. Lower glume ovate, 1 length of spikelet, chartaceous, with oil streaks, 2-keeled, 5–7 -veined. Lower glume surface glabrous. Lower glume margins ciliolate (0.5mm). Lower glume apex dentate, 2 -fid, acuminate. Upper glume lanceolate, 1-keeled, 1–3 -veined. Upper glume surface glabrous. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret lanceolate, 5 mm long, hyaline, 2 -veined, glabrous, acute. Fertile lemma oblong, 4 mm long, hyaline, without keel, 3 -veined, 0–3 -veined. Palea absent or minute.

Flower and Fruit. Anthers 3, 2–2.5 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, West-central tropical Africa, South tropical Africa. Guinea, Ivory Coast, Liberia, Sierre Leone. DRC. Zambia.

Elionurus royleanus Nees ex A. Rich. *Tent. Fl. Abyss.* 2: 474 (1851).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *Elyonurus*).

TYPE from Ethiopia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Schimper* 795, Ethiopia (P?; IT: WAG).

Illustrations (Books): S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (358, Fig 147), L.Boulos, *Flora of Egypt* 4 (2005) (342, Pl. 100), N.L.Bor, *Gramineae* in K.H.Rechinger, *Flora Iranica*. No. 70/30 (1970) (Tab. 70), N.L.Bor, *Gramineae* in *Flora of Iraq* (1968) (527, Pl. 201).

Derivation (Clifford & Bostock 2007): in honor of John Forbes Royle (1799–1858) English physician in service of East India Company.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Phacelurus Group.

Habit, Vegetative Morphology. Annual. Culms erect, 5–30 cm long. Lateral branches fastigiata. Leaves cauline. Ligule a ciliolate membrane. Leaf-blades 1–15 cm long, 1–2 mm wide.

Inflorescence. Inflorescence composed of racemes, terminal and axillary, subtended by an inflated leaf-sheath, embraced at base by subtending leaf. Racemes 1, single, 2–6 cm long. Rhachis fragile at the nodes, subterete, villous on surface. Rhachis hairs mainly at internode tip. Rhachis internodes linear. Rhachis internode tip oblique, flat, with simple rim. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, linear, flattened, glabrous.

Sterile Spikelets. Companion sterile spikelets well-developed, male, lanceolate, dorsally compressed, 6–10 mm long, shorter than fertile, deciduous with the fertile. Companion sterile spikelet glumes chartaceous, caudate, mucicous or mucronate. Companion sterile spikelet lemmas 2, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 6–7 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus cuneate, 1 mm long, pubescent, base obtuse, attached obliquely.

Glumes. Glumes dissimilar, reaching apex of florets, firmer than fertile lemma. Lower glume ovate, 1 length of spikelet, chartaceous, 2-keeled. Lower glume surface glabrous to villous, with marginal tufts of hair. Lower glume apex entire or lobed, 2 -fid, setaceously acuminate (4–6mm). Upper glume lanceolate, 1-keeled. Upper glume surface glabrous to villous. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret elliptic, hyaline, 2 -veined. Fertile lemma oblong, hyaline, without keel, 3 -veined, 0–3 -veined. Palea absent or minute.

Distribution (TDWG). Continent. Africa, Temperate Asia, Tropical Asia.

Country /Province /State. Northern Africa, Macaronesia, West tropical Africa, Northeast tropical Africa, East tropical Africa. Egypt, Morocco. Cape Verde. Mauritania, Senegal. Eritrea, Ethiopia (inc. Eritrea), Somalia, Sudan. Kenya, Uganda. **Arabian Peninsula.** Oman. **Indian Subcontinent.** Pakistan.

TDWG4. Maharashtra, Rajasthan, Uttah Pradesh.

Elionurus tripsacoides Willd. *Sp. Pl.* 4, 2 : 941 (1806).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Venezuela. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Humboldt & Bonpland s.n.*, Venezuela: Caracas (P).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (686), F.W.Gould, *The Grasses of Texas* (1975) (615, Fig. 325), S.A.Rennoize, *Gramineas de Bolivia* (1998) (613, Fig 146).

Derivation (Clifford & Bostock 2007): Gk. -oides, resemblance. With an inflorescence resembling that of *Tripsacum*.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Phacelurus Group.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 60–150 cm long. Lateral branches ample. Leaves cauline. Ligule a ciliolate membrane. Leaf-blades flat or involute, 10–30 cm long, 1–3 mm wide. Leaf-blade apex attenuate, filiform or hardened.

Inflorescence. Inflorescence composed of racemes, terminal and axillary. Racemes 1, single, 3–12 cm long. Rhachis fragile at the nodes, subterete, glabrous on surface or pubescent on surface. Rhachis internodes linear. Rhachis internode tip oblique, flat, with simple rim. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, linear, flattened, pubescent.

Sterile Spikelets. Companion sterile spikelets well-developed, male, lanceolate, dorsally compressed, 4–5 mm long, shorter than fertile, deciduous with the fertile. Companion sterile spikelet glumes chartaceous, glabrous, acute. Companion sterile spikelet lemmas 2, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 5–8 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus cuneate, 1–2 mm long, pubescent, base obtuse, attached obliquely.

Glumes. Glumes dissimilar, reaching apex of florets, firmer than fertile lemma. Lower glume ovate, 1 length of spikelet, chartaceous, with oil streaks, 2-keeled. Lower glume surface glabrous. Lower glume apex entire or dentate, 2 -fid (up to 2mm), acuminate. Upper glume lanceolate, 1-keeled. Upper glume surface glabrous. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret elliptic, hyaline, 2 -veined. Fertile lemma oblong, hyaline, without keel, 3 -veined, 0–3 -veined. Palea absent or minute.

Flower and Fruit. $2n = 20$.

Distribution (TDWG). Continent. Africa, North America, South America.

Country /Province /State. West tropical Africa, West-central tropical Africa, East tropical Africa, South tropical Africa, Southern Africa. DRC. Kenya, Tanzania, Uganda. Angola, Malawi, Zambia, Zimbabwe. Namibia, Botswana. South-central USA, Southeastern USA, Mexico. Texas. Florida, Georgia, Louisiana, Mississippi. Central Mexico, Northeast Mexico, Gulf (Mexico), Southwest Mexico, Southeast Mexico. Mesoamerica, Northern South America, Western South America, Brazil, Southern South America. Guatemala, Panama. Venezuela. Bolivia, Colombia, Peru. Brazil West Central, Brazil Southeast. Argentina Northwest, Paraguay.

TDWG4. Jujuy, Salta, Santiago del Estero. Chaco, Misiones, Santa Fe. Mexico State, Morelos, Puebla. Aguascalientes, Guanajuato, Queretaro, Zacatecas. Veracruz. Colima, Guerrero, Jalisco, Michoacan, Oaxaca. Chiapas.

Elionurus tristis Hack. *DC. Monog. Phan.* 6: 331 (1889).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Madagascar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Hildebrandt 3758*, Madagascar: in collibus apricis pr. Andrangolaka prov. Imerina orient. (?; IT: K).

Illustrations (Books): J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (269, Fig 98).

Derivation (Clifford & Bostock 2007): L. dull-coloured. Leaf-blades greyish, often as a result of being invested with short hairs.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Phacelurus Group.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, slender, 15–60 cm long. Culm-nodes black, glabrous. Lateral branches lacking or sparse. Leaves mostly basal. Ligule a fringe of hairs. Leaf-blades involute, 5–25 cm long, 1–3 mm wide. Leaf-blade surface glabrous or pilose.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight or arcuate, 3–9 cm long, 2–3 mm wide. Rhachis fragile at the nodes, subterete, pubescent on surface or pilose on surface. Rhachis internodes linear, 2–3.5 mm long. Rhachis internode tip oblique, flat, with simple rim. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, linear, flattened, pubescent or ciliate.

Sterile Spikelets. Companion sterile spikelets well-developed, male, lanceolate, dorsally compressed, 3.5–5.5 mm long, shorter than fertile, deciduous with the fertile. Companion sterile spikelet glumes chartaceous, glabrous, ciliolate on margins, dentate, 2 -fid. Companion sterile spikelet lemmas 2, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 4–6 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus cuneate, pubescent, base obtuse, attached obliquely.

Glumes. Glumes dissimilar, reaching apex of florets, firmer than fertile lemma. Lower glume ovate, 1 length of spikelet, chartaceous, 2-keeled. Lower glume primary vein ciliolate. Lower glume surface convex or flat, glabrous. Lower glume apex dentate, 2 -fid. Upper glume lanceolate, 1-keeled. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret elliptic, hyaline. Fertile lemma oblong, hyaline, without keel, 3 -veined, 0–3 -veined. Palea absent or minute.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

Ellisochloa papposa (Nees) P.M.Peterson & N.P.Barker. *Taxon* 60: 1119 (2011).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online (as *Rytidospernum*), U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. **Basionym or Replaced Name:** *Danthonia papposa* Nees, *Fl. Afr. Austral. Ill.* 333 (1841)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: South Africa, *Avena* 845 *Eckl. Herb. cap. un. itin.*.

Recent Synonyms: *Merxmuellera papposa* (Nees) Conert, *Senck. Biol.* 51. 133 (1970).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. pappos, grandfather. With long silky hairs on the callus.

Classification. Subfamily Chloridoideae. Tribe: Centropodieae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous. Culms 25–50 cm long. Ligule a fringe of hairs. Leaf-blades 12–20 cm long, 2–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle contracted, lanceolate, 12–15 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets cuneate, laterally compressed, 13–18 mm long, 5–7 mm wide, breaking up at maturity, disarticulating below each fertile floret. Floret callus evident, pilose.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma, gaping. Lower glume lanceolate, 13–18 mm long, 1 length of upper glume, membranous, without keels, 3 -veined. Lower glume apex acuminate. Upper glume lanceolate, 13–18 mm long, 1.5 length of adjacent fertile lemma, membranous, without keels, 3 -veined. Upper glume apex acuminate.

Florets. Fertile lemma oblong, 9–10 mm long, chartaceous, without keel, 9 -veined, more than 3-veined. Lemma surface pubescent, hairy below, with a transverse row of hair tufts, bearing 6 hair tufts in all. Lemma hairs 5–7 mm long. Lemma apex lobed, 2 -fid, incised 0.5 of lemma length, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, simple at base, 15–18 mm long overall, with twisted column. Palea surface pilose, hairy on flanks. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, fleshy, glabrous, truncate. Anthers 3. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Western Cape, Eastern Cape.

Ellisochloa Genus

xElyhordeum arcuatum W. W. Mitch. & Hodgson. *Rhodora*, 70: 470 (1968).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

xElyhordeum boweslyonii (Melderis) Melderis. K. H. Rechinger, *Fl. Iran.*, Lief. 70, 243 (1970).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Bowes-Lyon, British botanist who collected in Pakistan.
Classification. Subfamily Pooideae. Tribe: Triticeae.
Distribution (TDWG). **Continent.** Temperate Asia.
Country /Province /State. **Western Asia.** Iran.

xElyhordeum berkleyanum (Bowden)Bowden.

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.
Illustrations (Books): No illustration found (BKS).
Classification. Subfamily Pooideae. Tribe: Triticeae.

xElyhordeum californicum (Bowden) M.E. Barkworth. *Phytologia* 83(4): 308 (1998).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.
Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (287).
Classification. Subfamily Pooideae. Tribe: Triticeae.

xElyhordeum chatangense (Roshev.) Tsvelev. *Novosti Sist. Vyssh. Rast.* 9: 62 (1972).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.
Illustrations (Books): No illustration found (BKS).
Classification. Subfamily Pooideae. Tribe: Triticeae.

xElyhordeum dakotense (Bowden) Bowden. *Canad. Journ. Bot.* 45: 719 (1967).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.
Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (285).
Derivation (Clifford & Bostock 2007): L. *-ense*, denoting origin. From South Dakota, USA.
Classification. Subfamily Pooideae. Tribe: Triticeae.

xElyhordeum dutillyanum (Lepage) Bowden. *Canad. Journ. Bot.* 45: 718 (1967).

Illustrations (Books): No illustration found (BKS).
Derivation (Clifford & Bostock 2007): L. *-anum*, indicating connection. In honor of Artheme Dutilly (1896–1973) Canadian cleric and botanist.
Classification. Subfamily Pooideae. Tribe: Triticeae.

xElyhordeum elymoides (Hack.) J.H. Hunz. & Xifreda. *Kurtziana* 28(2): 292 (2000).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.
Recent Synonyms: *Cockaynea elymoides* (Hack.) Zotov, *Trans. & Proc. Roy. Soc. New Zealand* 73: 233 (1943).
Illustrations (Books): No illustration found (BKS).
Derivation (Clifford & Bostock 2007): Gk *-oides*, resembling. Resembling *Elymus* with respect to the inflorescence.
Classification. Subfamily Pooideae. Tribe: Triticeae.

xElyhordeum iowense R. W. Pohl. *Brittonia*, 18: 255 (1966).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.
Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (287).
Derivation (Clifford & Bostock 2007): L. *-ense*, denoting origin. From Iowa, USA.
Classification. Subfamily Pooideae. Tribe: Triticeae.

xElyhordeum jordalii (Meld.) Tsvelev. *Novosti Sist. Vyssh. Rast.*, 10: 58 (1973).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (285).

Derivation (Clifford & Bostock 2007): In honor of Louis Henrik Jordal (1919–1951) United States botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

xElyhordeum macounii (Vasey) M.E. Barkworth & D.R. Dewey. *Great Basin Nat.*, 43(4): 570 (1983).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (285).

Classification. Subfamily Pooideae. Tribe: Triticeae.

xElyhordeum montanense (Scribn.) Bowden. *Canad. Journ. Bot.* 45: 720 (1967).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.

Recent Synonyms: *Hordeum montanense* Scribn. ex Beal, *Canad. Journ. Bot.* 45: 720 (1967).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms 60–100 cm long. Leaf-blades 5–8 mm wide. Leaf-blade surface scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 8–17 cm long. Rhachis fragile at the nodes, flattened. Spikelet packing broadside to rhachis. Rhachis internodes oblong, falling with spikelet above. Spikelets in threes. Fertile spikelets sessile, 3 in the cluster.

Fertile Spikelets. Spikelets comprising 1 fertile florets (lateral) or 2 fertile florets (central), with a barren rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets, or of 2 or more fertile florets. Spikelets lanceolate, dorsally compressed, 8–10 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes collateral, similar, exceeding apex of florets, gaping. Lower glume subulate, 10–35 mm long, 1 length of upper glume. Upper glume 10–35 mm long.

Florets. Fertile lemma lanceolate, 8 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 15–35 mm long overall.

Flower and Fruit. Anthers 3. Ovary pubescent on apex. Caryopsis with adherent pericarp, hairy at apex. Hilum linear.

Distribution (TDWG). Continent. North America.

Country /Province /State. Northwest USA, North-central USA.

xElyhordeum pilosilemma (W.W. Mitch. & H.J. Hodgs.) M.E. Barkworth. *Phytologia* 83(4): 308 (1998).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (285).

Classification. Subfamily Pooideae. Tribe: Triticeae.

xElyhordeum piperi (Bowden) Bowden. *Canad. Journ. Bot.* 45: 719 (1967).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): In honor of Charles Vancouver Piper (1867–1926) United States agrostologist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

xElyhordeum schaackianum (Bowden) Bowden. *Canad. Journ. Bot.* 45: 719 (1967).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (285).

Derivation (Clifford & Bostock 2007): In honor of George B. Van Schaack (fl. 1945) United States soldier and amateur botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

xElyhordeum schmidii (Melderis) Melderis. K. Danske Vid. Selsk., *Biol. Skrift.*, 14, No. 4 :8 (1965).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Ludwig Bernhard Ehregott Schmid (1788–1859) German-born Indian missionary and plant collector.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Western Asia. Iran.

xElyhordeum stebbinsianum Bowden. *Canad. Journ. Bot.* 45: 719 (1967).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (287).

Derivation (Clifford & Bostock 2007): L. *-anum*, indicating connection. In honor of George Ledyard Stebbins (1906–2000) United States botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

xElyhordeum triploideum (Bowden) Bowden. *Canad. Journ. Bot.* 14: 719 (1967).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

xElylymus aleuticus (Hulten) B.R.Baum. *Canad. J. Bot.* 57(8): 947 (1979).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007).

Classification. Subfamily Pooideae. Tribe: Triticeae.

xElylymus aristatus (Merrill) M.E. Barkworth & D.R. Dewey. *Great Basin Nat.*, 43 (4): 570 (1983).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (345).

Classification. Subfamily Pooideae. Tribe: Triticeae.

xElylymus colvillensis (Lepage) M.E. Barkworth. *Amer. J. Bot.*, 71(5): 623 (1984).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007).

Derivation (Clifford & Bostock 2007): L. *-ensis*, denoting origin. From Colville River, Alaska.

Classification. Subfamily Pooideae. Tribe: Triticeae.

xElylymus hirtiflorus Hitchcock. *Am. Journ. Bot.* 21: 132 (1934).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database; HT: *C.L. Shear* 284, 25 Jun 1895, USA: Wyoming: along the Green River (US-1019435; IT: US-731038).

Recent Synonyms: *Elymus x hirtiflorus* Hitchc., *Amer. J. Bot.* 21(3): 132, f. 2 (1934)

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (345 as *Elymus*).

Derivation (Clifford & Bostock 2007): L. *hirtus*, hairy; flos, flower. Spikelets with hairy glumes and or lemmas.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Culms 50–100 cm long, 1–2 mm diam. Leaf-sheaths mostly shorter than adjacent culm internode, glabrous on surface. Leaf-sheath oral hairs scanty or lacking. Ligule an eciliate membrane, 0.5 mm long. Leaf-blades 8–15 cm long, 1–2 mm wide. Leaf-blade surface pilose, hairy on both sides. Leaf-blade margins pubescent.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, bilateral, 12–22 cm long, 4–6 mm wide. Rhachis scabrous on surface, ciliate on margins. Spikelet packing broadside to rhachis, lax, 2-rowed. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 7–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–15 mm long, 2.5–3.5 mm wide, breaking up at maturity, disarticulating below each fertile floret. Spikelet callus base truncate. Rhachilla internodes 1 mm long, pilose.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate or elliptic, 7–8 mm long, 0.7–0.8 length of upper glume, coriaceous, without keels. Lower glume apex acuminate. Upper glume lanceolate or elliptic, 10 mm long, 0.33–0.66 length of adjacent fertile lemma, coriaceous, without keels, 5–7 -veined. Upper glume surface hirsute, hairy on veins. Upper glume margins ciliate. Upper glume apex acuminate.

Florets. Fertile lemma oblong, 7–9.5 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface scabrous, hirsute. Lemma margins ciliate. Lemma apex acute, awned, 1 -awned. Principal lemma awn 16–25 mm long overall. Palea 5.5–8 mm long. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp. Hilum linear.

Distribution (TDWG). Continent. North America.

Country /Province /State. Subarctic America, Western Canada, Eastern Canada, Northwest USA, North-central USA. Alaska. Alberta, British Columbia, Saskatchewan. Ontario. Montana, Wyoming. South Dakota.

xElyleymus hultenii (Melderis) Barkworth.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (345).

Classification. Subfamily Pooideae. Tribe: Triticeae.

xElyleymus jamesensis (Lepage) M.E. Barkworth. *Amer. J. Bot.*, 71(5): 623 (1984).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (345).

Derivation (Clifford & Bostock 2007): L. *-ensis*, denoting origin. From Baie James, Quebec, Canada.

Classification. Subfamily Pooideae. Tribe: Triticeae.

xElyleymus mossii (Lepage) Barkworth.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (345).

Classification. Subfamily Pooideae. Tribe: Triticeae.

xElyleymus ontariensis (Lepage) Barkworth.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007).

Classification. Subfamily Pooideae. Tribe: Triticeae.

xElyleymus turneri (Lepage) M.E. Barkworth & D.R. Dewey. *Amer. J. Bot.*, 72(5): 772 (1985).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (345).

Derivation (Clifford & Bostock 2007): In honor of G.E. Turner (fl.1942) who collected in Alberta, USA.

Classification. Subfamily Pooideae. Tribe: Triticeae.

xElyleymus uclueletensis (Bowden) B.R. Baum.

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (345).

Classification. Subfamily Pooideae. Tribe: Triticeae.

xElyleymus ungavensis (Louis-Marie) M.E. Barkworth. *Amer. J. Bot.*, 71(5): 623 (1984).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (345).

Derivation (Clifford & Bostock 2007): L. *-ense*, denoting origin. From Baie de Ungava, Quebec, Canada.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Elymandra androphila (Stapf) Stapf. Prain, *Fl. Trop. Afr.* 9: 408 (1919).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Guinea Republic. **Basionym or Replaced Name:** *Andropogon androphilus* Stapf, *J. Bot. (Morot)* 19: 103 (1905)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *C.H.O. Pobeguain 521*, no date, Guinea-Bissau: Kouroussa (K; IT: P, US-1038032).

Illustrations (Journals): *Hooker's Icones Plantarum* (t.3092 (1922)).

Derivation (Clifford & Bostock 2007): Gk. *aner*, man; *phileo*, love, Most spikelets of the racemes are male.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe **ANDROPOGONINAE**.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 100–250 cm long, 2–5 mm diam. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs bearded. Ligule a ciliolate membrane, 1–2 mm long, hyaline, truncate. Leaf-blades 30–60 cm long, 4–9 mm wide, stiff, glaucous. Leaf-blade surface scabrous. Leaf-blade margins scabrous. Leaf-blade apex attenuate.

Inflorescence. Synflorescence compound, paniculate, 20–60 cm long.

Inflorescence composed of racemes, terminal and axillary, subtended by a spatheole. Spatheole linear, 5–10 cm long, scarious, glabrous. Peduncle pubescent above. Racemes 2, paired, 2–3 cm long, bearing few fertile spikelets, bearing 1 fertile spikelets on each. Rhachis fragile at the nodes, glabrous on margins. Spikelet packing crowded. Rhachis internodes filiform, 1.5–2.5 mm long. Rhachis internode tip oblique. Raceme-bases filiform, unequal (the longer measured), 3–4 mm long, glabrous. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, filiform, ciliate.

Sterile Spikelets. Basal sterile spikelets well-developed, lower raceme (4–)12–14(–18) in number, (4–)12–14(–18) in upper racemes, separately deciduous, barren or male, 6–8 mm long, smaller than fertile. Basal sterile spikelet glumes glabrous.

Companion sterile spikelets well-developed, containing empty lemmas or male, lanceolate (olive green), 7–11 mm long, as long as fertile, separately deciduous. Companion sterile spikelet callus oblong, 1–1.5 mm long, truncate. Companion sterile spikelet glumes chartaceous, glabrous, acuminate, muticous or mucronate. Companion sterile spikelet lemmas 2, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, subterete, 7–10 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus linear, 2–3 mm long, bearded, base pungent, attached obliquely. Spikelet callus hairs white.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, chartaceous, dark brown, without keels, 7 -veined. Lower glume surface pubescent. Lower glume apex truncate. Upper glume lanceolate, chartaceous, without keels, 3 -veined. Upper glume surface pilose. Upper glume apex acute, muticous or awned (rarely), 1 -awned, awn 0–3 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, hyaline, 2 -veined, ciliolate on margins. Fertile lemma linear, 5 mm long, hyaline, without keel. Lemma margins eciliate. Lemma apex dentate, 2 -fid, incised 0.2 of lemma length, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, (5.5–)7(–9) mm long overall, with twisted column. Column of lemma awn pubescent. Palea absent or minute.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, West-central tropical Africa, and South tropical Africa. Ghana, Guinea, Ivory Coast, Liberia, Mali, Nigeria, Senegal, Sierre Leone, Togo. Cameroon, DRC. Angola.

Elymandra archaelymandra (Jacques-Felix) W. D. Clayton. *Kew Bull.* 20: 291 (1966).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Senegal. **Basionym or Replaced Name:** *Hyparrhenia archaelmyandra* Jacq.-Fil., *J. Agric. Trop.* 1(1–4): 48, t. 7 (1954)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Berhaut 1895*, Senegal (P).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. arche, begin as of time. With two homogamous pairs at the base of the raceme and therefore more primitive than other members of the genus.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe **ANDROPOGONINAE**.

Habit, Vegetative Morphology. Annual. Culms erect, 150–200 cm long, 2–5 mm diam. Ligule an eciliate membrane, 1 mm long, scarious, truncate. Leaf-blades tapering towards tip, 15–30 cm long, 3–6 mm wide. Leaf-blade midrib widened.

Inflorescence. Synflorescence compound, paniculate, 40–60 cm long.

Inflorescence composed of racemes, terminal and axillary, subtended by a spatheole. Spatheole linear, 7–8 cm long, scarious, glabrous. Peduncle deflexed, glabrous. Racemes 2, paired, 3–4 cm long, bearing few fertile spikelets, bearing 2 fertile spikelets on each. Rhachis fragile at the nodes, glabrous on margins. Rhachis internodes filiform. Rhachis internode tip oblique. Raceme-bases filiform, unequal (the longer measured), 3–4 mm long, hirsute (fulvously), hairy in axils. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, filiform.

Sterile Spikelets. Basal sterile spikelets well-developed, lower raceme 4 in number, 4 in upper racemes, barren or male, 10–12 mm long, larger than fertile. Basal sterile spikelet glumes chartaceous, pilose.

Companion sterile spikelets well-developed, containing empty lemmas or male, lanceolate (olive green), 12–13 mm long, longer than fertile, separately deciduous. Companion sterile spikelet callus cuneate, 2 mm long, 2-toothed. Companion sterile spikelet glumes chartaceous, villous, acuminate. Companion sterile spikelet lemmas 2, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, subterete, 8–11 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus linear, 3–4 mm long, bearded, base pungent, attached obliquely. Spikelet callus hairs white.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, chartaceous, dark brown, without keels. Lower glume surface pilose. Lower glume apex truncate. Upper glume lanceolate, chartaceous, without keels. Upper glume surface pilose. Upper glume apex acute, awned, 1 -awned, awn 20–30 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, hyaline, 2 -veined. Fertile lemma linear, 5.5 mm long, hyaline, without keel. Lemma apex dentate, 2 -fid, incised 0.2 of lemma length, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 80–95 mm long overall, with twisted column. Column of lemma awn hirtellous. Palea absent or minute.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa. Guinea, Senegal.

Elymandra gossweileri (Stapf) W. D. Clayton. *Kew Bull.* 20: 288 (1966).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Angola. **Basionym or Replaced Name:** *Pleiadelphia gossweileri* Stapf, *Hooker's Icon. Pl.* 30: t. 3121 (1927)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *J. Gossweiler 8739*, 1923, Angola: Cabinda (K; IT: US-1162814).

Illustrations (Books): H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962) (301, Fig. 239 *Pleiadelphia monostachya*).

Illustrations (Journals): *Hooker's Icones Plantarum* (t.3122 (1927) as *Pleiadelphia*).

Derivation (Clifford & Bostock 2007): in honor of John Gossweiler (1873–1952) Swiss-born Angolan botanist.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe **ANDROPOGONINAE**.

Habit, Vegetative Morphology. Annual. Culms erect, 200 cm long, 2–4 mm diam. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 0.5 mm long, scarious, truncate. Leaf-blades 15–30 cm long, 2–4 mm wide. Leaf-blade surface scabrous, rough adaxially, glabrous. Leaf-blade margins scabrous. Leaf-blade apex attenuate, filiform.

Inflorescence. Synflorescence compound, scanty, 30–60 cm long.

Inflorescence composed of racemes, terminal and axillary, subtended by a spatheole. Spatheole linear, 6–7 cm long, scarious, green or brown or red, glabrous. Peduncle antrorsely scabrous above. Racemes 1, single, 3–4 cm long, bearing few fertile spikelets, bearing 1 fertile spikelets on each. Rhachis fragile at the nodes, glabrous on margins. Rhachis internodes filiform. Rhachis internode tip oblique. Raceme-bases brief, 1 mm long, glabrous. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, filiform.

Sterile Spikelets. Basal sterile spikelets well-developed, (2–)6–14 in number, persistent, barren or male, 5–8 mm long, smaller than fertile. Basal sterile spikelet glumes glabrous.

Companion sterile spikelets well-developed, containing empty lemmas or male, linear, 6–8.5 mm long, shorter than fertile, separately deciduous. Companion sterile spikelet callus oblong, 1–1.5 mm long, truncate. Companion sterile spikelet glumes chartaceous, glabrous, acuminate. Companion sterile spikelet lemmas 2, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, subterete, 12–16 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus linear, 4–6 mm long, bearded, base pungent, attached obliquely. Spikelet callus hairs dark brown.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, chartaceous, dark brown, without keels. Lower glume surface pubescent. Lower glume apex truncate. Upper glume lanceolate, chartaceous, without keels. Upper glume surface pilose. Upper glume apex acute, awned, 1 -awned, awn 6–40 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, hyaline, 2 -veined. Fertile lemma linear, 6 mm long, hyaline, without keel. Lemma apex lobed, 2 -fid, incised 0.25 of lemma length, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 80–90 mm long overall, with twisted column. Column of lemma awn hispidulous. Palea absent or minute.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, West-central tropical Africa, South tropical Africa. Ivory Coast, Senegal. Gabon. Angola.

Elymandra grallata (Stapf) W. D. Clayton. *Kew Bull.* 20: 292 (1966).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Angola. **Basionym or Replaced Name:** *Hyparrhenia grallata* Stapf, *Fl. Trop. Afr.* 9(2): 320–321 (1919)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Gossweiler 1842*, Angola (K).

ST: *Gossweiler 4040*, Angola (K).

ST: *Gossweiler 2781*, Angola: Muene Equenha, very common in open woods at, Quiriri River (K; IST: US-1037996).

Illustrations (Books): R.M.Pohill, F.T.E.A., *Gramineae* (3(1982):822, Fig 189), G.V.Pope et al., *Flora Zambesiaca* 10, G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (131, Fig 77).

Derivation (Clifford & Bostock 2007): *L. gralla*, stilt; -ata, possessing. Culms erect with abundant stilt-roots.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe ANDROPOGONINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 100–200 cm long, 2–4 mm diam. Leaf-sheaths glabrous on surface or pilose. Ligule a ciliolate membrane, 1–1.5 mm long, hyaline, truncate. Leaf-blades 15–30 cm long, 3–6 mm wide, stiff, glaucous.

Inflorescence. Synflorescence compound, scanty, 40–60 cm long.

Inflorescence composed of racemes, terminal and axillary, subtended by a spatheole. Spatheole linear, 7.5–10 cm long, scarious, glabrous or pilose. Peduncle glabrous or pubescent above. Racemes 2, paired, 4–5.5 cm long, bearing few fertile spikelets, bearing 6–9 fertile spikelets on each. Rhachis fragile at the nodes, ciliate on margins. Spikelet packing lax. Rhachis internodes filiform. Rhachis internode tip oblique. Raceme-bases filiform, unequal (the longer measured), 3–4 mm long, pubescent, hairy in axils. Spikelets in pairs. Fertile

spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, filiform, ciliate.

Sterile Spikelets. Basal sterile spikelets well-developed, lower raceme 2 in number, 0–2 in upper racemes, barren or male, 7 mm long, smaller than fertile. Basal sterile spikelet glumes villous.

Companion sterile spikelets well-developed, containing empty lemmas or male, lanceolate (olive green), 8–13 mm long, as long as fertile, separately deciduous. Companion sterile spikelet callus linear, 2–3 mm long, 2-toothed. Companion sterile spikelet glumes herbaceous, villous, acute. Companion sterile spikelet lemmas 2, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, subterete, (7–)9–10(–12) mm long, falling entire, deciduous with accessory branch structures. Spikelet callus linear, 2.5–3.5(–4.5) mm long, pubescent, base pungent, attached obliquely. Spikelet callus hairs white.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, chartaceous, dark brown, without keels, 7 -veined. Lower glume surface villous. Lower glume apex truncate. Upper glume lanceolate, chartaceous, without keels, 3 -veined. Upper glume surface pilose. Upper glume apex acuminate, awned, 1 -awned, awn 8–18 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, hyaline, 2 -veined, ciliolate on margins. Fertile lemma linear, 5–6 mm long, hyaline, without keel. Lemma margins ciliate. Lemma apex lobed, 2 -fid, incised 0.5 of lemma length, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 30–50 mm long overall, with twisted column. Column of lemma awn pubescent. Palea absent or minute.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, East tropical Africa, South tropical Africa, Southern Africa. Ivory Coast. Tanzania. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Kwazulu-Natal.

Elymandra lithophila (Trin.) W. D. Clayton. *Kew Bull.* 20: 292 (1966).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. **Basionym or Replaced Name:** *Andropogon lithophilus* Trin., *Mem. Acad. Imp. Sci. St.-Petersbourg, Ser. 6, Sci. Math.* 2(3): 277 (1832)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *G.H. von Langsdorff s.n.*, Brazil: S. da Lapa: in saxosis subhumidis (LE-TRIN-0255.01; IT: K (as Riedel 1019), LE (as Riedel 1019), LE (as Riedel 1019), US-75602 (fragm.)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. lithos, stone; phileo, love. Growing amongst rocks.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe **ANDROPOGONINAE**.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, slender, 30–100 cm long. Leaf-sheaths glabrous on surface or puberulous. Leaf-sheath oral hairs bearded. Ligule an eciliate membrane or a ciliolate membrane, 0.5 mm long, scarious, truncate. Leaf-blades 3–20 cm long, 2–6 mm wide, stiff. Leaf-blade surface glabrous or pubescent.

Inflorescence. Synflorescence compound, scanty (1–3 raceme-pairs).

Inflorescence composed of racemes, terminal and axillary, subtended by a spatheole. Spatheole linear, 5–15 cm long, scarious, glabrous or pilose. Peduncle glabrous or hirsute above. Racemes 2, paired, 2.5–7 cm long, bearing 3–8 fertile spikelets on each. Rhachis fragile at the nodes, glabrous on margins. Spikelet packing lax. Rhachis internodes filiform. Rhachis internode tip oblique. Raceme-bases filiform, unequal (the longer measured), 5–10 mm long, glabrous or hirsute. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, filiform.

Sterile Spikelets. Basal sterile spikelets well-developed, lower raceme 2 in number, 2 in upper racemes, barren or male, 6 mm long, smaller than fertile. Basal sterile spikelet glumes villous.

Companion sterile spikelets well-developed, containing empty lemmas or male, lanceolate (olive green), 7–9.5 mm long, as long as fertile, separately deciduous. Companion sterile spikelet callus oblong, 1–1.5 mm long, truncate. Companion sterile spikelet glumes chartaceous, villous, with white hairs, acute. Companion sterile spikelet lemmas 2, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, subterete, 7 mm long, falling entire, deciduous with

accessory branch structures. Spikelet callus linear, 1–1.5 mm long, pubescent, base obtuse, attached obliquely. Spikelet callus hairs white.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, chartaceous, dark brown, without keels. Lower glume surface villous. Lower glume apex truncate. Upper glume lanceolate, chartaceous, without keels. Upper glume surface pilose. Upper glume apex acute, awned, 1 -awned, awn 3–5 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, hyaline, 2 -veined. Fertile lemma linear, 4–4.5 mm long, hyaline, without keel. Lemma apex lobed, 2 -fid, incised 0.5 of lemma length, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 12–21 mm long overall, with twisted column. Column of lemma awn hispidulous. Palea absent or minute.

Distribution (TDWG). Continent. Africa, South America.

Country /Province /State. West-central tropical Africa, South tropical Africa. DRC. Zimbabwe. **Brazil.** Brazil Southeast.

Minas Gerais, Rio de Janeiro, Espirito Santo.

Elymandra subulata Jacques-Felix. *Rev. Bot. Appliq.* 170 (1950).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Guinea Republic. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Chevalier 20203*, Guinea Republic: Fouta Djallon (P).

ST: *Chevalier 20334*, Guinea Republic: Fouta Djallon (P).

ST: *Chevalier 34620*, Guinea Republic: Fouta Djallon (P).

ST: *Pobeguain 1810*, Congo Republic: Fouta DAjallon,

ST: *Jacques-Felix 172*, Guinea Republic: Kindia (P).

ST: *Jacques-Felix 454*, Guinea Republic: Kindia (P).

Illustrations (Books): H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962) (302, Fig. 240).

Derivation (Clifford & Bostock 2007): *L. subulus*, a fine point; -ata, possessing. Glumes, lemmas or calluses sharply tapered.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe ANDROPOGONINAE.

Habit, Vegetative Morphology. Annual. Culms erect, 200 cm long, 2–5 mm diam. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs bearded. Ligule an eciliate membrane, 2–3 mm long, scarious, truncate. Leaf-blade base without a false petiole or with a brief petiole-like connection to sheath. Leaf-blades tapering towards sheath, 20–40 cm long, 4–8 mm wide, dark green. Leaf-blade surface scabrous, rough adaxially, glabrous or pilose, sparsely hairy, hairy abaxially. Leaf-blade apex acuminate.

Inflorescence. Synflorescence compound, scanty, 25–35 cm long.

Inflorescence composed of racemes, terminal and axillary, subtended by a spatheole, exserted or embraced at base by subtending leaf. Spatheole linear, 8–12 cm long, scarious, glabrous or pilose. Peduncle glabrous. Racemes 2, paired, 3.5–5 cm long, bearing few fertile spikelets, bearing 1–3 fertile spikelets on each. Rhachis fragile at the nodes, glabrous on margins. Spikelet packing crowded. Rhachis internodes filiform. Rhachis internode tip oblique. Raceme-bases filiform, unequal (the longer measured), 4 mm long, hirsute (fulvously), hairy in axils. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, filiform.

Sterile Spikelets. Basal sterile spikelets well-developed, lower raceme 14–20 in number, 14–20 in upper racemes, persistent, barren or male, 7–9 mm long, smaller than fertile. Basal sterile spikelet glumes pilose.

Companion sterile spikelets well-developed, containing empty lemmas or male, lanceolate (olive green), 8–10 mm long, as long as fertile, separately deciduous. Companion sterile spikelet callus oblong, 1 mm long, emarginate. Companion sterile spikelet glumes chartaceous, villous, acute. Companion sterile spikelet lemmas 2, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, subterete, 9–10 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus linear, 2–3 mm long, bearded, base pungent, attached obliquely. Spikelet callus hairs white.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, chartaceous, dark brown, without keels. Lower glume surface pilose. Lower glume apex truncate. Upper glume lanceolate, chartaceous, without keels. Upper glume surface pilose. Upper glume apex acute, awned, 1 -awned, awn 10–25 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, hyaline, 2 -veined. Fertile lemma linear, 4 mm long, hyaline, without keel. Lemma apex lobed, 2 -fid, incised

0.5 of lemma length, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 65–100 mm long overall, with twisted column. Column of lemma awn puberulous. Palea absent or minute.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa. Guinea, Ivory Coast, Sierre Leone.

Elymus (Roegneria) abolinii (Drobov) Tsvelev. *Akad. Nauk SSSR Bot. Inst. Komarova, Rast. Tsentral. Azii, Fasc. 4*, 21 (1968).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Turkmenistan. **Basionym or Replaced Name:** *Agropyron abolinii* Drobov, *Repert. Spec. Nov. Regni Veg.* 21(581–587): 42 (1925)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Turkmenistan: Semi-reczie: Distr. Alma-ata, Kilomann, 1900, *Issyk 86* (HT: ?) and 206.

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 571 as *Elymus abolinii* var. *nudiusculus*).

Derivation (Clifford & Bostock 2007): in honor of Robert Ivanovic Abolin (1886-) Latvian-born Russian botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 80–115 cm long. Leaf-sheaths smooth, glabrous on surface. Ligule an eciliate membrane. Leaf-blades 4–7 mm wide. Leaf-blade surface scabrous, glabrous or pilose, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect or drooping, bilateral, 10–20 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 20 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 11–16 mm long, 1 length of upper glume, coriaceous, much thinner on margins, without keels, 5–7 -veined. Lower glume surface scabrous. Lower glume apex entire or with a unilateral tooth, acuminate. Upper glume lanceolate, 11–16 mm long, 1.2 length of adjacent fertile lemma, coriaceous, with scarious margins, without keels, 5–7 -veined. Upper glume surface scabrous. Upper glume apex entire or with a unilateral tooth, acuminate.

Florets. Fertile lemma lanceolate, 9–13 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface pubescent. Lemma apex acute, awned, 1 -awned. Principal lemma awn ascending or spreading, 3–22 mm long overall. Palea 8–10 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 3.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (9 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Middle Asia, China, Mongolia, Russia. Kazakhstan, Kirgizistan, Turkmenistan, Uzbekistan. Xinjiang. Mongolia.

TDWG4.

Elymus (Roegneria) aduoensis (S.L.Lu & Y.H.Wu) FORSAN.

TYPE from China. **Basionym or Replaced Name:** *Roegneria aduoensis* S.L. Lu & Yu H. Wu, *Guihaia* 28(3): 285–286, photo 1 (2008)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Qinghai: Zaduo County, Aduo Xiang, alpine meadow and gravel flood land, 4680 m, 6 Aug. 2005, *Y.H. Wu 35 567A* (HT: QTPMB [=HNWP]) Qinghai-Tibetan Plateau Museum of Biology, Chinese Academy of Sciences.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Butt sheaths persistent and investing base of culm, with fibrous dead sheaths. Culms erect, 25 cm long, 2 -noded. Leaf-sheaths smooth, glabrous on surface. Leaf-sheath auricles falcate, 1 mm long. Ligule an eciliate membrane, 0.5 mm long. Leaf-blades 2–3(–5) cm long, 2–3 mm wide. Leaf-blade surface pubescent, densely hairy, hairy on both sides. Leaf-blade margins ciliate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight or flexuous, bilateral, 4 cm long. Rhachis flattened. Spikelet packing broadside to rhachis, lax, regular, 2 -rowed. Rhachis internodes 5 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 12–20 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1.5–2.5 mm long, pubescent. Floret callus pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 4–4.6 mm long, 0.66 length of upper glume, coriaceous, without keels, 5 -veined. Lower glume apex acuminate. Upper glume lanceolate, 6–6.5 mm long, coriaceous, without keels, 5 -veined. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate or oblong, 9–10 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface scaberulous, rough below. Lemma apex awned, 1 -awned. Principal lemma awn straight, reflexed, 15–26 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels ciliolate, adorned above, with 0.33 of their length adorned. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1 mm long, green.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Qinghai.

Elymus afghanicus (Melderis) G. Singh. *Taxon*, 32(4): 639 (1983).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960) (as *Agropyron*).

TYPE from Iran. **Basionym or Replaced Name:** *Agropyron afghanicum* Melderis, *Grass. Burma, Ceylon, India & Pakistan* 659, 689 (1960)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Aitchison 1145*, Iran: Khorasan, common at altitudes above 500 ft (BM; IT: C).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ica, belonging to. From Afghanistan.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–60 cm long. Culm-internodes scaberulous. Leaf-sheaths glabrous on surface or pilose. Ligule an eciliate membrane, lacerate, truncate. Leaf-blades 10–15 cm long, 2–3 mm wide, glaucous. Leaf-blade surface ribbed, scabrous, rough abaxially, pilose, sparsely hairy, hairy adaxially. Leaf-blade margins scabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, bilateral, 14–16 cm long. Rhachis flattened, smooth on margins or scaberulous on margins. Spikelet packing broadside to rhachis, lax. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 12–15 mm long, falling entire. Spikelet callus base truncate. Rhachilla internodes sparsely hairy.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate or oblong, 6–7 mm long, 0.9 length of upper glume, coriaceous, 1-keeled, 4–6 -veined. Lower glume margins ciliolate. Lower glume apex obtuse. Upper glume lanceolate or oblong, 7–8 mm long, 0.75 length of adjacent fertile lemma, coriaceous, 1-keeled, 4–6 -veined. Upper glume margins smooth or scaberulous, ciliolate. Upper glume apex obtuse.

Florets. Fertile lemma oblong, 8.5–9.5 mm long, coriaceous, keeled, lightly keeled, keeled above, 5 -veined, more than 3-veined. Lemma margins ciliolate. Lemma apex truncate or obtuse, mucronate, 1 -awned. Principal lemma awn 0.4–0.8 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels ciliolate. Palea surface puberulous, hairy on back, hairy above. Palea apex emarginate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 5–5.5 mm long, yellow. Stigmas 2. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Western Asia. Iran.

Elymus africanus Love, *nom nov, non E. elymoides* Sweizz (1891). *Feddes Repert.* 95: 468 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ethiopia. **Basionym or Replaced Name:** *Triticum elymoides* Hochst. ex A. Rich., *Tent. Fl. Abyss.* 2: 440 (1850)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Crescit in montibus districtus Urahit ..., *Scimper pl. Abyss., sect. III 1764*.

Illustrations (Books): S. Phillips, *Poaceae* (Gramineae) in I. Hedberg & S. Edwards, *Flora of Ethiopia and Eritrea* (1995) (60, Fig 27).

Derivation (Clifford & Bostock 2007): L. -ana, indicating location. From Africa.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms slender, 60–90 cm long. Ligule an eciliate membrane, 1 mm long, truncate. Leaf-blades 10–20 cm long, 2.5 mm wide. Leaf-blade surface scabrous, rough adaxially, glabrous. Leaf-blade apex acute.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, flexuous, bilateral, 13 cm long. Rhachis scabrous on margins. Spikelet packing broadside to rhachis, lax, 2 their length apart. Rhachis internodes linear, 17–22 mm long. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, compressed strongly, 20 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent. Floret callus 0.5 mm long, pubescent.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume elliptic, 9.5–10.5 mm long, 1 length of upper glume, coriaceous, without keels, 7 -veined. Lower glume lateral veins ribbed. Lower glume apex obtuse. Upper glume elliptic, 9.5–10.5 mm long, 1–1.1 length of adjacent fertile lemma, coriaceous, without keels, 7 -veined. Upper glume lateral veins ribbed. Upper glume apex obtuse.

Florets. Fertile lemma lanceolate to oblong, 10–11 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface puberulous. Lemma apex obtuse, awned, 1 -awned. Principal lemma awn curved, recurved at base of limb, 25–30 mm long overall. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 3.2 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa. Ethiopia (inc. Eritrea).

Elymus agropyroides J. C. Presl. *Rel. Haenk.* 1: 265 (1830).

More checking of status required (*E. angulatus*).

Accepted by: U. Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Chile. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Hab. in Cordilleris chilensibus, *Haenke s.n.* (HT: PR).

Illustrations (Books): M. N. Correa, *Flora Patagonica* Parte III, Gramineae (1978) (444, Fig 297).

Derivation (Clifford & Bostock 2007): Gk. -oides, resembling. Similar to *Agropyron* with respect to the inflorescence.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms 60–120 cm long, 3–4 -noded. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 1–1.5 mm long. Leaf-blades flat or convolute, 15–20 cm long, 4–7 mm wide, stiff. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence composed of racemes, exerted or embraced at base by subtending leaf. Racemes 1, single, bilateral, 6–14 cm long. Rhachis scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1.5–2 mm long, scaberulous.

Glumes. Glumes persistent, similar, reaching apex of florets. Lower glume lanceolate, 10–14 mm long, 1 length of upper glume, coriaceous, without keels, 2–3 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous, rough on veins. Lower glume apex acute, awned, 1 -awned, awn 1–2 mm long. Upper glume lanceolate, 10–14 mm long, 1.2–1.3 length of adjacent fertile lemma, coriaceous, without keels, 3–4 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous, rough on veins. Upper glume apex acute, awned, 1 -awned, awn 1–2 mm long.

Florets. Fertile lemma lanceolate, 8–11 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma surface scaberulous, rough above. Lemma apex dentate, 2 -fid, obtuse, mucronate or awned, 1 -awned. Principal lemma awn from a sinus, 0.5–4 mm long overall. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2.5–3 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, 5–5.5 mm long.

$2n = 28$ (2 refs TROPICOS).

Distribution (TDWG). Continent. South America.

Country /Province /State. Southern South America. Argentina South.

TDWG4. Chubut, Neuquén, Río Negro, Tierra del Fuego. Rest of Chile- Biobio, La Auracania, Maule, O'Higgins, Santado, Valpariso, Chiloe, Aisen, Magellanes.

Elymus (Roegneria) alashanicus (Keng) S.L. Chen. *Bull. Nanjing Bot. Gard. Mem. Sun Yat Sen*, 1987: 8 (1988).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria alashanica* Keng ex Keng & S.L. Chen, *Acta Univ. Nankin. Sci. Nat.* 3: 73 (1963)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Ningxia: Gongji, 29 Aug. 1933, Y.Y. Pai 146 (HT: ZJFI).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 582).

Derivation (Clifford & Bostock 2007): L. *-ica*, belonging to. From Ala Shan Ranges, China.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Inner Mongolia, China North-Central, Xinjiang.

TDWG4. Gansu.

Elymus alaskanus (Turcz.) Tsvetlev. *Taxon*, 19: 299 (1970).

Regarded by K as a synonym (*E. macrourus*).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), T.G.Tutin et al, *Flora Europaea* 5 (1980).

TYPE from USA. **Basionym or Replaced Name:** *Agropyron alaskanum* Scribn. & Merr., *Contr. U.S. Natl. Herb.* 13(3): 85 (1910)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *W.H. Osgood s.n.*, 18 Aug 1899, USA: Alaska (US-592341; IT: US-1016328; S-G6655).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (235, as subsp. *alaskanus* & subsp. *hyperarcticus*).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Culms geniculately ascending, 45–60 cm long. Culm-nodes pubescent. Leaf-sheaths glabrous on surface or pilose. Ligule an eciliate membrane. Leaf-blades 1.5–4 mm wide. Leaf-blade surface scabrous, pubescent or pilose, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, bilateral, 4–8 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–12 mm long, 2–6 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume oblong, asymmetrical (at apex), 5–10 mm long, 1 length of upper glume, coriaceous, much thinner on margins, without keels, 3–5 -veined. Lower glume surface asperulous, rough on veins. Lower glume apex acute, muticous or mucronate or awned, 1 -awned, awn 0–2 mm long. Upper glume oblong, asymmetrical (at apex), 5–10 mm long, 0.75–1 length of adjacent fertile lemma, coriaceous, with hyaline margins, without keels, 3–5 -veined. Upper glume surface asperulous, rough on veins. Upper glume apex acute, muticous or mucronate or awned, 1 -awned, awn 0–2 mm long.

Florets. Fertile lemma oblong, 7–9 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface asperulous, rough above. Lemma apex acute, awned, 1 -awned. Principal lemma awn 2–4 mm long overall. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 1.6–2 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe, North America.

Region. Northern Europe, Eastern Europe.

Country /Province /State. : Finland, Iceland, Norway, Sweden. North European Russia. Siberia, Russian far east. **Subarctic America.** Alaska.

Elymus alatavicus (Drobov) Á.Löve. *Feddes Repert.* 95: 473 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.Tsvelev, *Grasses of the Soviet Union* (1983) (as *Eytrigia alatavicica*).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Flower and Fruit. $2n = 42$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Middle Asia. Kazakhstan, Turkmenistan.

Elymus albicans (Scribn. & Smith) A. Love. *Taxon*, 29(1): 166 (1980).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Agropyron albicans* Scribn. & J.G. Sm., *Bull. Div. Agrostol., U.S.D.A.* 4: 32 (1897)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *P.A. Rydberg 3405*, 22 Aug 1896, USA: Montana: Yogo Gulch, alt. 5000 ft (US-556647; IT: NY-327587, NY-327586).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 24 Poaceae*, part 1 (2007) (335).

Derivation (Clifford & Bostock 2007): *L. albico*, make white. Spikelets greenish-white.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, culms solitary or caespitose. Rhizomes elongated, wiry. Culms 40–80 cm long. Culm-internodes thin-walled. Leaf-sheaths pubescent or pilose. Leaf-sheath auricles falcate, 1–1.5 mm long. Ligule an eciliate membrane, 0.5 mm long, erose. Leaf-blades involute, 2–4 mm wide, stiff, glaucous. Leaf-blade surface scaberulous, rough adaxially or on both sides.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 4–20 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets solitary or in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, 10 mm long, 1 length of upper glume, coriaceous, without keels, 5–7 -veined. Lower glume surface pubescent. Lower glume apex setaceously acuminate. Upper glume lanceolate, 10 mm long, coriaceous, without keels, 3–5 -veined. Upper glume apex acute.

Florets. Fertile lemma lanceolate to oblong, 8–10 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma apex acute, awned, 1 -awned. Principal lemma awn curved, spreading, 10–15 mm long overall. Palea 1 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (1 ref TROPICOS).

Distribution (TDWG). Continent. North America.

Country /Province /State. Western Canada, Northwest USA, North-central USA, Southwestern USA. Alberta, British Columbia, Saskatchewan. Colorado, Idaho, Montana, Washington, Wyoming. Utah.

Elymus (Roegneria) alienus (Keng) S.L. Chen. *Novon* 7(3): 227 (1997).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria aliena* Keng, *Acta Univ. Nankin. Sci. Nat.* 1963(1): 31 (1963). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Hubei: Lai-yuan Xian, near Tsun-Er-Kou, 1100 m, 14 June 1934, *K.M. Liou 2424* (HT: PE) ; HT: *K.M. Liou 2424*, 14 June 1934, China: Hubei: Lai-Yuan Xian, near Cun-Er-Kou, 1100 m (PE).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 599).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Rhizomes short. Culms erect, 30–90 cm long, 3–6 -noded. Leaf-sheaths glabrous on surface or pubescent, with reflexed hairs. Ligule an eciliate membrane. Leaf-blades 12–20 cm long, 4–9 mm wide. Leaf-blade surface pubescent, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Peduncle 23–35 cm long. Racemes 1, single, straight or arcuate, bilateral, 7–15 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 14–17 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1–2.5 mm long, pubescent. Floret callus pubescent. Floret callus hairs 0.4–0.6 mm long.

Glumes. Glumes persistent, similar. Lower glume lanceolate, 7–8 mm long, coriaceous, without keels, 3–6 -veined. Lower glume surface smooth or scabrous, rough on veins. Lower glume apex acute or acuminate. Upper glume lanceolate, 8–10 mm long, coriaceous, without keels, 3–6 -veined. Upper glume surface smooth or scabrous, rough on veins. Upper glume apex acute or acuminate.

Florets. Fertile lemma lanceolate, 9–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scabrous, rough on veins. Lemma margins scabrous. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn straight or curved, 10–25 mm long overall. Palea 0.9 length of lemma, 2 -veined. Palea keels ciliate, adorned above. Palea apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 2.5 mm long, yellow. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Inner Mongolia, China North-Central, China Southeast.

TDWG4. Hebei, Shanxi. Henan.

Elymus alpinus L.B.Cai. *Acta Biol. Plateau Sin.* 14: 8 . (1999).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Qinghai: Gonghe, in pratis, 3200 m, 5 July 1963, Y.C. Yang 188 (HT: HNWP).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. alpes*, high mountain; *-ina*, indicating possession. Species growing at high altitudes.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms erect, 25–35 cm long, 5 -noded. Leaf-sheaths longer than adjacent culm internode, glabrous on surface. Ligule an eciliate membrane, 0.5 mm long, truncate. Leaf-blades flat or involute, 6–10 cm long, 3–5 mm wide. Leaf-blade surface glabrous. Leaf-blade margins ciliate.

Inflorescence. Inflorescence composed of racemes. Peduncle smooth or scaberulous above. Racemes 1, single, erect, straight or flexuous, bilateral, 4–6 cm long, 9 mm wide. Rhachis flattened, ciliate on margins. Spikelet packing broadside to rhachis. Rhachis internodes 2–3 mm long. Spikelets appressed, in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–12 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes persistent, similar. Lower glume lanceolate, 3–4 mm long, 1 length of upper glume, coriaceous, without keels, 1–3 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent or distinct. Lower glume apex acuminate. Upper glume lanceolate, 3–4 mm long, 0.5 length of adjacent fertile lemma, coriaceous, without keels, 1–3 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent or distinct. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, 7–8 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma margins pubescent. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 3–7 mm long overall. Palea 1.1 length of lemma, 2 -veined. Palea keels ciliate, adorned above. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.5 mm long, black. Ovary pubescent on apex.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Qinghai.

Elymus (Roegneria) altissimus (Keng) A.Lvve. *Feddes Repert.* 95: 448 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria altissima* Keng ex Keng & S.L. Chen, *Acta Univ. Nankin. Sci. Nat.* 3(1): 53 (1963)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Sichuan: Ta Wa Rung, No Chio, in pine woods, 3400 m, Sept. 1935, C.W. Wang 66409 (HT: PE; IT: NAS).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 572).

Derivation (Clifford & Bostock 2007): *L. altus*, tall; *-issima*, most. Very tall compared with other members of the genus.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Basal innovations intravaginal. Culms erect, 150–200 cm long, 2 mm diam., 5–6 -noded. Culm-internodes smooth, distally glabrous. Leaf-sheaths mostly shorter than adjacent culm internode, glabrous on surface. Ligule an eciliate membrane, 0.5 mm long, scarious, truncate. Leaf-blades 25–41 cm long, 6–10 mm wide, glaucous. Leaf-blade surface pilose, sparsely hairy, hairy adaxially. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Peduncle 22 cm long. Racemes 1, single, erect or ascending, bilateral, 15–18 cm long. Rhachis flattened, glabrous on surface, scabrous on margins. Spikelet packing broadside to rhachis, regular, 2 -rowed. Rhachis internodes 12–20(–30) mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 10–20 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pilose. Floret callus pubescent. Floret callus hairs 0.7 mm long.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume oblong, 5 mm long, coriaceous, without keels, 3–7 -veined. Lower glume apex acute, muticous. Upper glume oblong, 6 mm long, coriaceous, without keels, 5–7 -veined. Upper glume apex acute, muticous.

Florets. Fertile lemma lanceolate or oblong, 10 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface puberulous, hairy at base. Lemma margins pubescent. Lemma apex awned, 1 -awned. Principal lemma awn curved, 20 mm long overall. Palea 0.9 length of lemma, 2 -veined. Palea keels ciliate, adorned above, with 0.33 of their length adorned. Palea apex emarginate or obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, hairy at apex, apex unappendaged. Hilum linear.

$2n = 28$ (5 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central, Qinghai, Xinjiang.

TDWG4. Sichuan, Yunnan.

Elymus andinus Trin. *Linnaea*, 10: 304 (1836).

Regarded by K as a synonym (*E. angulatus*).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Chile. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *Poeppig 30(44)*, 1828–1829, Chile australis, Andes de Antuco (LE-TRIN-3118.01; IT: US-965950 (fragm. ex LE-TRIN Poeppig 30)). LT designated by Seberg & Petersen, *Bot. Jahr. Syst.* 120(4): 511 (1998).

ST?: *Poeppig 97*, 1828, Chile: austral, Andes de Antuco (W).

Illustrations (Books): M.N.Correra, *Flora Patagonica* Parte III, Gramineae (1978) (449, Fig. 300).

Derivation (Clifford & Bostock 2007): *L. -inus*, belonging to. From the Andes.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms geniculately ascending, 60–160 cm long, 3–5 -noded. Leaf-sheaths glabrous on surface or pilose. Ligule an eciliate membrane, 0.5–1 mm long, truncate. Leaf-blades 10–30 cm long, 5–8 mm wide. Leaf-blade surface glabrous or pubescent, hairy adaxially or on both sides.

Inflorescence. Inflorescence composed of racemes. Peduncle scaberulous above. Racemes 1, single, bilateral, 8–15 cm long. Rhachis ciliate on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, 3–5 mm long. Rhachis internode tip flat. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 8–12 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 7–8 mm long, 1 length of upper glume, coriaceous, without keels, 2–3 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous, rough on veins. Lower glume apex acute, muticous or awned, 1 -awned, awn 1–2.5 mm long. Upper glume lanceolate, 7–8 mm long, 0.9–1 length of adjacent fertile lemma, coriaceous, without keels, 2–3 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous, rough on veins. Upper glume apex acute, muticous or awned, 1 -awned, awn 1–2.5 mm long.

Florets. Fertile lemma lanceolate, 7–9 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma surface scabrous, rough above. Lemma apex dentate, 2 -fid, obtuse, awned, 1 -awned. Principal lemma awn from a sinus, 1–4 mm long overall. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2.5–3 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (2 refs TROPICOS).

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Southern South America. Argentina South.

TDWG4. Chubut, Río Negro, Santa Cruz.

Elymus angσαιensis S.L. Lu & Y.H.Wu. *Bull. Bot. Res., Harbin* 28(5): 513–514, photo 1 & 2 (2008).

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Qinghai: Zadoi County, Angsai Xiang, southwest valley, in alpine scree, alt. 4200 m, 10 July 2005, *Y.H. Wu 33 295-B* (HT: QTPMB) Qinghai-Tibetan Plateau Museum of Biology, Chinese Acad. of Sciences=HNWP.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 25–50 cm long. Leaf-sheaths mostly shorter than adjacent culm internode. Leaf-sheath auricles falcate, 1 mm long. Ligule an eciliate membrane, 0.5 mm long, truncate. Leaf-blades flat or conduplicate or involute, 2.5–7 cm long, 2–5 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, flexuous, bilateral, 4–13 cm long. Rhachis flattened, glabrous on surface. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear, 8–17 mm long. Spikelets in pairs. Fertile spikelets sessile or sessile and pedicelled. Pedicels present, 1 mm long, pubescent.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 8–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 2–3 mm long, pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 4 mm long, 0.75 length of upper glume, coriaceous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume surface scabrous, rough on veins, glabrous. Lower glume apex acuminate. Upper glume lanceolate, 5 mm long, 0.5–0.75 length of adjacent fertile lemma, coriaceous, without keels, 3 -veined. Upper glume surface scabrous, rough on veins, glabrous. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate or oblong, 7–9 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scaberulous. Lemma apex acute, awned, 1 -awned. Principal lemma awn ascending or spreading, 5–15 mm long overall. Palea 1 length of lemma. Palea keels scaberulous. Palea surface scaberulous (above). Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.5 mm long, yellow.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Qinghai.

Elymus angulatus J. & C. Presl. *Rel. Haenk.* 1: 264 (1830).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Peru. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *Haenke s.n.*, Peru: "mont. guanoc." [on US fragm. from PR] (PR; ILT: LE-3119.01, US-865949 (fragm. ex PR), W). LT designated by Seberg & Petersen, *Bot. Jahr. Syst.* 120(4): 511 (1998).

Recent Synonyms: *Elymus asper* Nees ex Steud., *Syn. Pl. Gram.* 349. (1854). *Elymus muticus* Phil., *Linnaea*, 3: 300 (1864–65) (1865).

Illustrations (Books): S.A.Renvoize, *Gramineas de Bolivia* (1998) (253, Fig. 50).

Illustrations (Journals): *Ruizia* (13:209, Fig 22j-1 (1993)).

Derivation (Clifford & Bostock 2007): rhachis angular.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Culms geniculately ascending, 60–100 cm long, 3 -noded. Leaf-sheaths glabrous on surface or pubescent. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 1 mm long. Leaf-blades convolute, 5–25 cm long, 3–5 mm wide. Leaf-blade surface scabrous, rough abaxially, glabrous or pilose, hairy adaxially. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Peduncle antrorsely scabrous above. Racemes 1, single, bilateral, 6–15 cm long. Rhachis ciliate on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, 4–5 mm long. Rhachis internode tip flat. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 11–16 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes collateral, persistent, similar, reaching apex of florets. Lower glume linear, 11–16 mm long, 1 length of upper glume, coriaceous, without keels, 3 -veined. Lower glume primary vein smooth or scabrous. Lower glume apex setaceously acuminate. Upper glume linear, 11–16 mm long, 1.2–1.6 length of adjacent fertile lemma, coriaceous, without keels, 3–5 -veined. Upper glume primary vein smooth or scabrous. Upper glume apex setaceously acuminate.

Florets. Fertile lemma lanceolate, 9–13 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma surface scabrous, rough above. Lemma apex emarginate or acute, awned, 1 -awned. Principal lemma awn straight or curved, 6–15 mm long overall. Palea 1 length of lemma. Palea keels ciliate, with hairs 1 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 1.5–2 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, 5 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Southern South America. Bolivia, Peru. Chile North, Chile Central, Chile South.

TDWG4. Catamarca, Mendoza, San Juan, Tucuman. Buenos Aires, La Pampa. Chubut, Neuquén, Río Negro, Santa Cruz, Tierra del Fuego. Rest of Chile- Biobio, La Auracania, Maule, O'Higgins, Santado, Valpariso, Chiloe, Aisen, Magellanes. Antofagasta, Atacama. Coquimbo, Valparaiso, Santiago, O'Higgins, Maule, Biobio, La Araucania. Los Lagos, Aisen, Magellanes.

Elymus angustispiculatus S.L. Chen & G.H. Zhu. *Novon* 12(3): 425 (2002).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Qinghai: Xunhua, on mountain slopes, 2200 m, 8 July 1984, *G.X. Lei 841810* (HT: HNWP).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 596).

Derivation (Clifford & Bostock 2007): *L. angustus*, narrow; *spica*, a point; hence in particular, an ear or spike of grain; *-ulus*, diminutive; *-atus*, possessing. Spikelets long and narrow.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms erect or geniculately ascending, 80–100 cm long, 2–2.5 mm diam., 4 -noded. Leaf-sheaths outer margin glabrous. Ligule an eciliate membrane, 0.6 mm long, truncate. Leaf-blades 8–15 cm long, 4–6 mm wide. Leaf-blade surface smooth or scabrous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight or arcuate, bilateral, 16–20 cm long, 6 mm wide. Rhachis flattened, scabrous on surface, ciliate on margins. Spikelet packing broadside to rhachis. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 16–26 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus glabrous or sparsely hairy.

Glumes. Glumes persistent, similar. Lower glume lanceolate, 8–10 mm long, coriaceous, without keels, 3 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acuminate, mucronate. Upper glume lanceolate, 8–10 mm long, coriaceous, without keels, 3 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex acuminate, mucronate.

Florets. Fertile lemma lanceolate, 10–12 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface glabrous. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 20–25 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels ciliolate, adorned above. Palea surface glabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 2–2.7 mm long, yellow. Caryopsis with adherent pericarp.
Distribution (TDWG). Continent. Temperate Asia.
Country /Province /State. China. Qinghai.

Elymus antarcticus Hook. f. *Fl. Antarct.* 388 (1847).

Regarded by K as a synonym (*E. angulatus*).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Chile. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Capt. King s.n.*, Chile: Port Famine (K; IT: US-865949 (fragm. ex K)).

Illustrations (Books): E.G.Nicora, *Los Generos de Gramineas de America Austral* (1987) (263, Fig. 84), M.N.Correa, *Flora Patagonica Parte III, Gramineae* (1978) (444, Fig. 294).

Derivation (Clifford & Bostock 2007): L. anti, opposite; arctica, the Arctic. With southern hemisphere distributions south of about the latitude of the Shetland Islands.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Culms erect or geniculately ascending, 60–100 cm long, 3 -noded. Leaf-sheaths glabrous on surface or pilose. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 1 mm long. Leaf-blades convolute, 15–25 cm long, 3–4 mm wide. Leaf-blade surface smooth or scaberulous, rough abaxially, glabrous or pilose, hairy adaxially. Leaf-blade margins smooth or scaberulous.

Inflorescence. Inflorescence composed of racemes. Peduncle antrorsely scabrous above. Racemes 1, single, erect, bilateral, 6–12 cm long. Rhachis 4–5 mm wide, ciliate on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pilose. Floret callus hairs 1–1.1 mm long.

Glumes. Glumes persistent, similar, reaching apex of florets. Lower glume lanceolate, 11–12 mm long, 1 length of upper glume, coriaceous, without keels, 3 -veined. Lower glume surface smooth or scabrous. Lower glume apex acuminate, awned, 1 -awned, awn 1–2 mm long. Upper glume lanceolate, 11–12 mm long, coriaceous, without keels, 4 -veined. Upper glume surface smooth or scabrous. Upper glume apex acuminate, awned, 1 -awned, awn 1–2 mm long.

Florets. Fertile lemma lanceolate, 9–13 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma surface scabrous, rough above. Lemma apex entire or dentate, 1–2 -fid, attenuate, awned, 1 -awned. Principal lemma awn 6–15 mm long overall. Palea 1 length of lemma. Palea keels ciliate, with hairs 0.5–1 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 1.5–2 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, 5 mm long, hairy at apex.

$2n = 28$ (2 ref TROPICOS).

Distribution (TDWG). Continent. Europe (*), South America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Southern South America.** Argentina South.

TDWG4. Neuquén, Río Negro, Tierra del Fuego. Chiloe, Aisen, Magellanes.

Elymus anthosachnoides (Keng) A.Lvve. *Feddes Repert.* 95: 459 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria anthosachnoides* Keng, *Acta Univ. Nankin. Sci. Nat.* 3(1): 65 (1963)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Yunnan: 'Che Tse Lo', mountain slopes, ca. 4000 m, 26 Aug. 1934, *H.T. Tsai 58184* (HT: N; IT: NAS, SZ).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 571/572 as *Elymus anthosachnoides* var. *scabrilemmatus* & *E. anthosachnoides* var. *anthosachnoides*).

Derivation (Clifford & Bostock 2007): Gk *-oides*, resembling. Similar to *Anthosachne*.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, culms solitary or caespitose, clumped loosely. Culms erect or geniculately ascending, 60–75 cm long, 1.5–2.5 mm diam., 4–6 -noded. Culm-internodes smooth. Leaf-sheaths loose, glabrous on surface. Ligule an eciliate membrane, 1 mm long, truncate. Leaf-blades 11–25 cm long, 3–5–7 mm wide. Leaf-blade surface hirsute, hairy adaxially or on both sides.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 8–9 cm long, bearing 6–8 fertile spikelets on each. Rhachis flattened, puberulous on surface, ciliate on margins. Spikelet packing broadside to rhachis, regular, 2 -rowed. Rhachis internodes 7–14 mm long. Spikelets solitary. Fertile spikelets sessile.

Sterile Spikelets. Basal sterile spikelets well-developed, 3–4 in number.

Fertile Spikelets. Spikelets comprising 5–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 24–30 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 3 mm long, pilose. Floret callus pubescent.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate, 5–7.5 mm long, coriaceous, without keels, 3–7 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acute, mucicous. Upper glume oblong, 7–9 mm long, coriaceous, without keels, 3–7 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex acute, mucicous.

Florets. Fertile lemma lanceolate, 13–14 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface hirsute. Lemma hairs 1–1.5 mm long. Lemma apex awned, 1 -awned. Principal lemma awn reflexed, 20–35 mm long overall. Palea 0.9–1 length of lemma, 2 -veined. Palea surface puberulous, hairy on back, hairy above. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2 mm long, brown. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, hairy at apex, apex unappendaged. Hilum linear.

$2n = 28$ (6 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central, Qinghai, Tibet, Xinjiang.

TDWG4. Sichuan, Yunnan.

Elymus (Roegneria) antiquus (Nevski) Tsvelev. *Rast. Tsentral. Azii, Fasc.* 4, 22 (1968).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Agropyron antiquum* Nevski, *Izv. Bot. Sada Akad. Nauk SSSR* 30: 515 (1932). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Xizang: 31 Aug. 1900, V.F. Ladgin 519 (LT: LE; ILT: BM).

Recent Synonyms: *Elymus curvatiformis* (Nevski) A.Love, *Feddes Repert.* 95: 454 (1984). *Elymus microlepis* (A. Melderis) A. Melderis, *Enum. Fl. Pl. Nepal*, 1: 131 (1978).

Elymus parviglumis (Keng ex Y.L. Keng & S.L. Chen) A.Löve, *Feddes Repert.* 95: 467 (1984).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 572).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths purple. Culms erect, 50–65 cm long, 2–3 -noded. Culm-internodes smooth, distally glabrous. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 0.3–0.5 mm long, lacerate, truncate. Leaf-blades 11–18 cm long, 2–4.5 mm wide. Leaf-blade surface pilose, sparsely hairy, hairy adaxially. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 10–15 cm long. Rhachis flattened, glabrous on surface, scabrous on margins, ciliate on margins. Spikelet packing broadside to rhachis, lax. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or lanceolate, laterally compressed, 14–20 mm long, falling entire. Spikelet callus base truncate. Rhachilla internodes 2.5–3 mm long, eventually visible between lemmas, pubescent.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 2.5–3 mm long, 0.66 length of upper glume, coriaceous, without keels, 1–3 -veined. Lower glume lateral veins prominent. Lower glume surface asperulous, rough on veins. Lower glume apex acute. Upper glume lanceolate, 3.5–4.5 mm long, 0.5 length of adjacent fertile lemma, coriaceous, without keels, 1–3 -veined. Upper glume lateral veins prominent. Upper glume surface asperulous, rough on veins. Upper glume apex acute.

Florets. Fertile lemma lanceolate, 8 mm long, coriaceous, purple, keeled, keeled above, 5 -veined, more than 3-veined. Lemma surface puberulous. Lemma apex acute, awned, 1 -awned. Principal lemma awn curved, 12–20 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels ciliate, adorned above. Palea surface glabrous or puberulous, hairy on back, hairy above. Palea apex emarginate or truncate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 1.5–2 mm long, purple. Stigmas 2. Caryopsis with adherent pericarp.

$2n = 28$ (3 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.
Country /Province /State. China. China South Central, Qinghai, Tibet. **Indian Subcontinent.** Nepal.
TDWG4. Sichuan, Yunnan.

Elymus (Roegneria) arcuatus (Golosc.) Tsvelev. *Novosti Sist. Vyssh. Rast.*, 9: 61 (1972).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Agropyron arcuatum* Golosc., *Not. Syst. Herb. Inst. Bot. Acad. Sci. URSS*, 12: 27 (1950). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Russia, Kungei Altai: Goloskokov (LE holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. arcus*, curve; -ata, possessing. Inflorescence branches curved.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Butt sheaths persistent and investing base of culm, with compacted dead sheaths. Culms 40–50 cm long. Leaf-sheaths smooth, glabrous on surface. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades conduplicate, 1–2 mm wide, glaucous. Leaf-blade surface scaberulous, rough adaxially. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 6–10 cm long. Rhachis flattened, scaberulous on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear, 3–4 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15–18 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 6–8 mm long, 1 length of upper glume, coriaceous, without keels, 3 -veined. Lower glume surface pubescent, hairy on veins. Lower glume apex acuminate, awned, 1 -awned, awn 3–5 mm long. Upper glume lanceolate, 6–8 mm long, 0.5–0.66 length of adjacent fertile lemma, coriaceous, without keels, 3 -veined. Upper glume surface pubescent, hairy on veins. Upper glume apex acuminate, awned, 1 -awned, awn 3–5 mm long.

Florets. Fertile lemma lanceolate, 10–15 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scaberulous. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 10–20 mm long overall. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 3 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Middle Asia. Kirgizistan.

TDWG4.

Elymus aristiglumis (Keng & S.L. Chen) S.L. Chen. *Bull. Nanjing Bot. Gard. Mem. Sun Yat Sen*, 1987: 9 (1988).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Xinjiang: Qinghe, 5 Aug. 1956, *Xinjiang Exped. 1148* (HT: PE).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 576 as *Elymus aristiglumis* var. *aristiglumis*).

Derivation (Clifford & Bostock 2007): *L. arista*, bristle; *gluma*, husk. With awned subtending glumes or lemmas.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, culms solitary or caespitose, clumped loosely. Culms erect, 40–45 cm long, 2 mm diam., 1–2 -noded, with 0.15–0.25 of their length below uppermost node. Culm-internodes smooth, distally pruinose. Leaf-sheaths 10 cm long, mostly shorter than adjacent culm internode, smooth, glabrous on surface. Ligule an eciliate membrane, 0.2–0.5 mm long, scarious, truncate. Leaf-blades linear or lanceolate, 6–8 cm long, 4–5 mm wide. Leaf-blade surface scabrous, rough adaxially. Leaf-blade margins ciliate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 6–8 cm long, 8–20 mm wide, bearing 11–14 fertile spikelets on each. Rhachis flattened, scabrous on margins. Spikelet packing

broadside to rhachis, crowded, regular, 2 -rowed. Rhachis internodes 3–10 mm long. Spikelets solitary. Fertile spikelets sessile.

Sterile Spikelets. Basal sterile spikelets rudimentary, 1 in number.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 12–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 2–3 mm long, pubescent. Floret callus pubescent. Floret callus hairs 0.2 mm long.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate, 3–4 mm long, coriaceous, without keels, 1–2(–3) -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acuminate, awned, 1 -awned, awn 3–7 mm long. Upper glume oblong, 3–5 mm long, coriaceous, without keels, 3–5 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex acuminate, awned, 1 -awned, awn 3–7 mm long.

Florets. Fertile lemma lanceolate to oblong, 10 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface pubescent, hairy below. Lemma apex awned, 1 -awned. Principal lemma awn reflexed, 20–30 mm long overall. Palea 1 length of lemma, 2 -veined. Palea surface puberulous, hairy on back, hairy above. Palea apex emarginate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2 mm long, purple. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, 5 mm long, hairy at apex, apex unappendaged. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central, China North-Central, Qinghai, Tibet, Xinjiang.

TDWG4. Gansu. Sichuan.

Elymus arizonicus (Scribn. & J. G. Smith) Gould. *Madrono*, 9: 125 (1947).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA and Mexico. **Basionym or Replaced Name:** *Agropyron arizonicum* Scribn. & J.G. Sm., *Bull. Div. Agrostol., U.S.D.A.* 4: 27–28 (1897)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *G.C. Nealley* 67, Aug 1891-Sep 1891, USA: Arizona: Pima Co.: Rincon Mountains (US-556649; ILT: MO-796107, MO-3532568, NY-327588). LT designated by Hitchcock, Man. Grass. U.S. 773 (1935), without explicitly citing a specific herbarium. ST: *Lemmon* 3174, 1884, USA: New Mexico: near Laguna (US). ST: *Lemmon* 2929, 1882, USA: Arizona: Huachuca Mountains (US). ST: *Wilcox s.n.*, 1894, USA: Arizona: Fort Huachuca (US). ST: *C.V. Riley s.n.*, USA: Rocky Mountains (US). ST: *Pringle* 1439, 1887, Mexico: Chihuahua: Sierra Madre (US). ST: *Bigelow s.n.*, 1851, Organ Mountains (GH).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (331), F.W.Gould, *The Grasses of Texas* (1975) (171, Fig. 86 as *Agropyron arizonicum*).

Derivation (Clifford & Bostock 2007): L. -ica, belonging to. From Arizona, USA.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 60–100 cm long. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 2–4 mm long. Leaf-blades flat or conduplicate, 2.5–6 mm wide, glaucous. Leaf-blade surface glabrous or puberulous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, flexuous, bilateral, 10–25 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear, 9–15 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15 mm long, breaking up at maturity, disarticulating above glumes but not between florets.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, 8–10 mm long, 1 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume apex acute or acuminate, muticous or awned, 1 -awned, awn 0–8 mm long. Upper glume lanceolate, 8–10 mm long, 1 length of adjacent fertile lemma, coriaceous, without keels, 3–5 -veined. Upper glume apex acute or acuminate, muticous or awned, 1 -awned, awn 0–8 mm long.

Florets. Fertile lemma lanceolate, 10 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma surface smooth or scaberulous. Lemma apex acute, awned, 1 -awned. Principal lemma awn curved, 15–30 mm long overall, limb scabrous. Palea 1 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (1 ref TROPICOS).

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. Southwestern USA, South-central USA, Mexico. Arizona. New Mexico. Northeast Mexico. Mesoamerica. Guatemala. Coahuila, Chihuahua, Neuvo Leon, Queretaro, San Luis Potosi, Zacatecas.

Elymus atratus (Nevski) Hand.-Mazz. *Symb. Sin. Pt. 7*: 1292 (1922).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China 22* (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Clinelymus atratus* Nevski, *Izv. Bot. Sada Akad. Nauk SSSR* 30: 644 (1932)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Gansu.; ; China, Kansu: Piasezky (LE holotype).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 559).

Derivation (Clifford & Bostock 2007): glumes dark-brown to black.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms slender, 25–50 cm long. Leaf-sheaths smooth. Ligule an eciliate membrane. Leaf-blades convolute, 2 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 5–11 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, 5–12 mm long. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–15 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 2–5 mm long, 1 length of upper glume, coriaceous, without keels, 2–3 -veined. Lower glume surface asperulous. Lower glume apex acuminate, mucicous or awned, 1 -awned, awn 0–4 mm long. Upper glume lanceolate, 2–5 mm long, 0.25–0.5 length of adjacent fertile lemma, coriaceous, without keels, 2–3 -veined. Upper glume surface asperulous. Upper glume apex acuminate, mucicous or awned, 1 -awned, awn 0–4 mm long.

Florets. Fertile lemma lanceolate, 7–9 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scaberulous. Lemma apex acute, awned, 1 -awned. Principal lemma awn spreading, 11–12 mm long overall. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous, ciliate. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 42$ (2 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central, China North-Central, Qinghai, Tibet, Xinjiang.

TDWG4. Gansu. Sichuan.

Elymus bakeri (E. Nels.) A. Love. *Taxon*, 29(1): 167 (1980).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Agropyron bakeri* E.E. Nelson, *Bot. Gaz.* 38(5): 378 (1904)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: IT: *C.F. Baker 139*, Aug 1899, USA: Colorado: Mineral Co.: near Pagosa Peak 9000 ft (MO-1810551, US-368727, NY-327589).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 24 Poaceae*, part 1 (2007) (333).

Derivation (Clifford & Bostock 2007): in honor of Charles Henry Baker (1848-) United States botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 30–50 cm long. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades 10–20 cm long, 2–4 mm wide, stiff. Leaf-blade venation prominent.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, bilateral, 9–12 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, 5–9 mm long. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets elliptic to oblong, laterally compressed, 15–20 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume oblong, 11–12 mm long, 1 length of upper glume, coriaceous, without keels, 5 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex entire or with a unilateral tooth, awned, 1 -awned, awn 2–8 mm long. Upper glume oblong, 11–12 mm long, 0.66 length of spikelet, coriaceous, without keels, 5 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex entire or with a unilateral tooth, awned, 1 -awned, awn 2–8 mm long.

Florets. Fertile lemma lanceolate, 9–12 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface smooth or scaberulous. Lemma apex entire or dentate, 2 -fid, awned, 1 -awned. Principal lemma awn curved, spreading, 10–25 mm long overall. Palea 1 length of lemma.

Flower and Fruit. $2n = 28$ (1 ref TROPICOS).

Distribution (TDWG). Continent. North America.

Country /Province /State. Western Canada, Northwest USA, North-central USA, Northeast USA, Southwestern USA, South-central USA. Colorado, Montana. Utah. New Mexico.

Elymus (Roegneria) barbicallus (Ohwi) S.L. Chen. *Bull. Nanjing Bot. Gard. Mem. Sun Yat Sen*, 1987: 9 (1988).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Agropyron barbicallum* Ohwi, *Acta Phytotax. & Geobot.*, Kyoto, 11: 257 (1942). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China, Ching-Lung-Chiao: Kanashiro 3605 (K iso).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 590/597/598 as *Elymus barbicallus* var. *barbicallus* & *Elymus barbicallus* var. *pubifolius*).

Derivation (Clifford & Bostock 2007): L. barba, beard; callus, callus. Callus bearded.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 70–80 cm long, 4–5 -noded. Culm-internodes distally glabrous. Culm-nodes glabrous. Leaf-sheaths 15–20 cm long, smooth. Leaf-sheath auricles falcate. Ligule an eciliate membrane, truncate. Leaf-blades 20–30 cm long, 6–8 mm wide. Leaf-blade surface scaberulous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 18–22 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 20–25 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes scaberulous. Floret callus pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 8–9 mm long, 1 length of upper glume, coriaceous, without keels, 5–7 -veined. Lower glume surface scabrous. Lower glume apex acuminate. Upper glume lanceolate, 8–9 mm long, 1 length of adjacent fertile lemma, coriaceous, without keels, 5–7 -veined. Upper glume surface scabrous. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, 8–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scaberulous. Lemma apex acute, awned, 1 -awned. Principal lemma awn 20–30 mm long overall. Palea 8–9 mm long. Palea keels ciliate, adorned below. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (2 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Inner Mongolia, China North-Central, Qinghai.

TDWG4. Hebei, Shanxi.

Elymus barystachyus L.B. Cai. *Acta Bot. Bor.-Occid. Sin.*, 13(1): 70 (1993).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Qinghai: Gonghe Xian, Longyangxia, ad ripas fluviorum, 2700 m, 19 Aug. 1983, *Exped. Longyangxia*, 104 (HT: NWBI).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, culms solitary or caespitose, clumped loosely. Culms geniculately ascending, 50–80 cm long, 2.5–4.5 mm diam., 3–5 -noded. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 1 mm long. Leaf-blades 7–27 cm long, 4–8 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, bilateral, 8–18 cm long, 5–9 mm wide. Rhachis flattened, ciliate on margins. Spikelet packing broadside to rhachis. Spikelets appressed, solitary to in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–18 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar. Lower glume linear or lanceolate, 7–10 mm long, 1 length of upper glume, coriaceous, without keels, 3–7 -veined. Lower glume surface pubescent, hairy on veins. Lower glume apex acuminate to setaceous acuminate. Upper glume linear or lanceolate, 7–10 mm long, 1 length of adjacent fertile lemma, coriaceous, without keels, 3–7 -veined. Upper glume surface puberulous, hairy on veins. Upper glume apex acuminate to setaceous acuminate.

Florets. Fertile lemma lanceolate or oblong, 7–8 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scabrous, rough below, pubescent, hairy above. Lemma margins pubescent. Lemma apex acuminate, muticous or awned, 1 -awned. Principal lemma awn 0–2 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 2 mm long, yellow or black.

$2n = 42$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central, Qinghai, Tibet.

TDWG4. Sichuan.

Elymus batalinii (Krasn.) Á. Löve. *Feddes Repert.* 95(7–8): 473 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.Tsvelev, *Grasses of the Soviet Union* (1983) (as *Elytrigia*).

Basionym or Replaced Name: *Triticum batalinii* Krassn., *Script. Hort. Univ. Petrop.* 2(1). 21. (1887).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms erect or geniculately ascending, 20–40 cm long. Culm-internodes smooth. Ligule an eciliate membrane. Leaf-blades 7–15 cm long, 3–4 mm wide, glaucous. Leaf-blade surface pubescent, hairy on both sides. Leaf-blade margins scabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 3.5–6.5 cm long, 7–10 mm wide. Rhachis flattened. Spikelet packing broadside to rhachis, crowded. Rhachis internodes linear. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 9–13 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume elliptic, 5–7 mm long, 1 length of upper glume, coriaceous, much thinner on margins, without keels, 5 -veined. Lower glume surface pilose, hairy on veins. Lower glume apex acute. Upper glume elliptic, 5–7 mm long, 0.75 length of adjacent fertile lemma, coriaceous, with membranous margins, without keels, 5 -veined. Upper glume surface pilose, hairy on veins. Upper glume apex acute.

Florets. Fertile lemma elliptic or oblong, 8 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface villous. Lemma apex acute, awned, 1 -awned. Principal lemma awn 10–12 mm long overall. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 42$ (2 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Middle Asia, Western Asia, and China. Turkmenistan. Afghanistan. Tibet, Xinjiang.

Elymus (Roegneria) borianus (Meld.) T.A. Cope. *Fl. Pakistan*, 143: 617 (1982).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *Agropyron*).

TYPE from Pakistan. **Basionym or Replaced Name:** *Agropyron borianum* Melderis, *Grass. Burma, Ceylon, India & Pakistan* 659, 690 (1960)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Swat: Kalam, 7000 ft, 24 Aug 1955, A. Rahmann 229 (HT: K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Norman Loftus Bor (1893–1972) Irish-born Indian forest botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 35–100 cm long. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades 10–22 cm long, 4.5–6 mm wide. Leaf-blade surface glabrous or pilose, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 12–17 cm long. Rhachis flattened, ciliate on margins. Spikelet packing broadside to rhachis. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 12–17 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes similar, shorter than spikelet. Lower glume elliptic or oblong, 8–11 mm long, 1 length of upper glume, coriaceous, without keels, 7 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous, rough on veins. Lower glume apex acute, awned, 1 -awned, awn 2–4.5 mm long. Upper glume elliptic or oblong, 8–11 mm long, 1–1.2 length of adjacent fertile lemma, coriaceous, without keels, 7 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous, rough on veins. Upper glume apex acute, awned, 1 -awned, awn 2–4.5 mm long.

Florets. Fertile lemma lanceolate or elliptic, 8–9.5 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma margins ciliate, hairy above. Lemma apex emarginate or obtuse, awned, 1 -awned. Principal lemma awn 12–20 mm long overall. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3, 4–5.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 42$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent. Pakistan.

Elymus brachyphyllus (Boiss. & Hausskn.) A. Love. *Feddes Repert.* 95: 458 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Iran. **Basionym or Replaced Name:** *Agropyron brachyphyllum* Boiss. & Haussk. ex Boiss., *Fl. Orient.* 5: 663 (1884)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *C.Haussknecht s.n.*, 1868, Persia austr.: m. Kellal (LE). B.Salomon 1990 det. is as Type of *Elymus brachyphyllus* (Boiss.)Loeve.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. brachys, short; phyllon, leaf. Leaf-blades short.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Butt sheaths persistent and investing base of culm, with compacted dead sheaths. Culms erect or geniculately ascending, 40–80 cm long. Culm-internodes distally glabrous. Lateral branches lacking. Ligule an eciliate membrane. Leaf-blades flat or involute or convolute, 7–15 cm long, 2–3 mm wide. Leaf-blade surface scabrous, rough adaxially, puberulous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, bilateral, 8–20 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, 15–25 mm long. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 6–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 12–18 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume oblong, 5–7 mm long, 0.66–0.75 length of upper glume, coriaceous, without keels, 5–7 -veined. Lower glume apex acute. Upper glume

oblong, 8–10 mm long, 0.66–0.75 length of adjacent fertile lemma, coriaceous, without keels, 5–7 -veined. Upper glume apex acute.

Florets. Fertile lemma oblong, 12 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma apex acute, awned, 1 -awned. Principal lemma awn 12–20 mm long overall. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (1 ref TROPICOS), or 42 (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Western Asia. Iran.

Elymus breviaristatus Keng ex Keng f. *Bull. Bot. Res., Harbin* 4(3): 191–192 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Agropyron breviaristatum* Hitchcock, *Contrib. U. S. Nat. Herb.* 24: 353 (1927). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Sichuan: ad ripam Yalung, ad declivitatem saxosam, 11 July 1951, Y.W. Cui 4430 (HT: PE).

Illustrations (Books): A.Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (108, Fig 34 as *Agropyrum scabrifolium*), A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (171, Fig. 47 as *Agropyrum scabrifolium*), B.Rosengurtt, *Gramineas Uruguayas I* (1970) (148, Fig. 57 as *Agropyrum scabrifolium*), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 559 & Fig. 561).

Derivation (Clifford & Bostock 2007): *L. brevis*, short; arista, bristle; -ata, possessing. Glumes or lemmas shortly awned.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Rhizomes short. Culms erect or geniculately ascending, 70 cm long. Leaf-sheaths smooth, glabrous on surface. Ligule an eciliate membrane. Leaf-blades 4–12 cm long, 3–5 mm wide. Leaf-blade surface scabrous, rough adaxially or on both sides.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 12–15 cm long. Rhachis scabrous on margins. Spikelet packing broadside to rhachis, lax. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 13–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Spikelet callus base truncate.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate or oblong, 3–4 mm long, 1 length of upper glume, coriaceous, without keels, 1–3 -veined. Lower glume lateral veins absent or obscure. Lower glume surface scabrous, rough on veins. Lower glume apex acute. Upper glume lanceolate or oblong, 3–4 mm long, 0.33–0.5 length of adjacent fertile lemma, coriaceous, without keels, 1–3 -veined. Upper glume lateral veins absent or obscure. Upper glume surface scabrous, rough on veins. Upper glume apex emarginate.

Florets. Fertile lemma lanceolate, 8–9 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface pubescent. Lemma apex acute, awned, 1 -awned. Principal lemma awn 1–5 mm long overall. Palea 1 length of lemma. Palea keels ciliolate. Palea surface puberulous, hairy on back. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp. Hilum linear.

$2n = 42$ (3 refs TROPICOS).

Distribution (TDWG). Continent. Europe (*), Temperate Asia, South America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **China.** China South Central, Inner Mongolia, Qinghai, Xinjiang. **Southern South America.** Argentina Northeast.

TDWG4. Sichuan. Buenos Aires, Entre Rios.

Elymus (Roegneria) brevipes (Keng & Chen) A.Löve. *Feddes Repert.*, 95: 467 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria brevipes* Keng, *Acta Univ. Nankin. Sci. Nat.* 3: 49 (1963). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Qinghai: Huangyuan, open rocky mountains, 8 Aug. 1944, Y.L. Keng et al. 5246 (HT: NJU).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 576 & Fig. 579).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, culms solitary or caespitose. Culms erect, 30–60 cm long. Ligule an eciliate membrane. Leaf-blades involute, stiff. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 7–11 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Spikelets solitary. Fertile spikelets sessile or pedicelled. Pedicels absent or present, 0.5–2 mm long.

Fertile Spikelets. Spikelets comprising 5–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 14–22 mm long, 4–7 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar. Lower glume lanceolate, 1.5–3 mm long, coriaceous, without keels, 3-veined. Lower glume surface scabrous. Lower glume apex acuminate. Upper glume lanceolate, 3–4.5 mm long, coriaceous, without keels, 3–4-veined. Upper glume surface scabrous. Upper glume apex acute or acuminate.

Florets. Fertile lemma lanceolate, 9–10 mm long, coriaceous, 5-veined, more than 3-veined. Lemma surface asperulous or scaberulous. Lemma apex acuminate, awned, 1-awned. Principal lemma awn curved, reflexed, 25–30 mm long overall, limb scabrous. Palea 8–9 mm long, 0.9 length of lemma, 2-veined. Palea keels ciliate, adorned above, with 0.33 of their length adorned. Palea surface puberulous, hairy on back. Palea apex truncate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.5–2.5 mm long, yellow.

$2n = 28$ (5 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central, China North-Central, Qinghai, Tibet, Xinjiang.

TDWG4. Gansu, Sichuan, Yunnan.

Elymus bungeanus (Trin.) A. Melderis. *Bot. J. Linn. Soc.*, 76(4): 376 (1978).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960) (as *Agropyron pamiricum*), T.G.Tutin et al, *Flora Europaea* 5 (1980).

TYPE from Russia. **Basionym or Replaced Name:** *Triticum bungeanum* Trin., *Mem. Acad. Imp. Sci. St.-Petersbourg Divers Savans* 2: 529 (1835)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Russia, Tscharysch R.: Bunge (LE holo).

Recent Synonyms: *Elytrigia geniculata* (Trin.) Nevski, *Acta Inst. Bot. Acad. Sc. URSS, Ser. I. Fasc. 2*, 82 (1936). *XAgroelymus pamiricus* (Melderis) Melderis, in K. H. Rechinger, *Fl. Iran., Lief. 70*, 225 (1970).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Rhizomes short. Culms 30–70 cm long. Leaf-sheaths outer margin hairy. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades flat or convolute, 2–4 mm wide, glaucous. Leaf-blade surface pubescent, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 6.5–15 cm long. Rhachis flattened, smooth on margins or scaberulous on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 11–17 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes glabrous.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 5–10 mm long, 1 length of upper glume, coriaceous, without keels, 3–6-veined. Lower glume apex obtuse or acute. Upper glume lanceolate, 5–10 mm long, 1 length of adjacent fertile lemma, coriaceous, without keels, 3–6-veined. Upper glume apex obtuse or acute.

Florets. Fertile lemma oblong, 8–10 mm long, coriaceous, 5-veined, more than 3-veined. Lemma apex acute, muticous. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 5–6 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Europe, Temperate Asia.

Region. Eastern Europe.

Country /Province /State. Krym, Central European Russia, South European Russia, Siberia, **Middle Asia**, **Western Asia**, **China**, **Mongolia**. Altay, Irkutsk, Tuva. Kazakhstan, Turkmenistan. Iran.

TDWG4.

Elymus (Roegneria) burchanbuddae (Nevski) Tsvelev. *Akad. Nauk SSSR Bot. Inst. Komarova, Rast. Tsentral. Azii, Fasc.* 4, 22 (1968).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from Tibet. **Basionym or Replaced Name:** *Agropyron burchanbuddae* Nevski, *Bull. Jard. Bot. Acad. Sc. URSS*, 30: 514 (1932). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Tibet, Burchan-Budda Mts.: Ladigin 234 (LE holotype).

Elymus pseudonutans A. Löve, *Feddes Repert.* 95:467 (1984).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 572).

Derivation (Clifford & Bostock 2007): Of the Burchan-Buddha Mountains, Tibet Autonomous Region, China.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, culms solitary. Culms geniculately ascending, 45–60 cm long, 1–1.5 mm diam., 2-noded. Leaf-sheaths 5–12 cm long, mostly shorter than adjacent culm internode, striately veined, glabrous on surface. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 0.5 mm long, truncate. Leaf-blades flat or involute, 2.5–10 cm long, 1–2 mm wide. Leaf-blade surface smooth or scaberrulous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, arcuate, bilateral, 4–6.5 cm long. Rhachis flattened, glabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, 5–7 mm long. Rhachis internode tip flat. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 3 mm long, pubescent. Floret callus pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate or oblong, 2–5 mm long, 0.5 length of upper glume, coriaceous, without keels, 3–5-veined. Lower glume surface smooth or scabrous, rough on veins. Lower glume apex acute. Upper glume lanceolate or oblong, 4–7 mm long, coriaceous, without keels, 3–5-veined. Upper glume surface smooth or scabrous, rough on veins. Upper glume apex acute.

Florets. Fertile lemma lanceolate, 8–10 mm long, coriaceous, 5-veined, more than 3-veined. Lemma surface puberulous, hairy above, hairy between veins. Lemma apex acute, awned, 1-awned. Principal lemma awn curved, 10–15 mm long overall. Palea 1 length of lemma. Palea keels scaberrulous. Palea apex truncate or obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 1.2 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, 5 mm long, hairy at apex.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. China. China South Central, Inner Mongolia, China North-Central, Qinghai, Tibet, Xinjiang. **Indian Subcontinent.** India, Nepal.

TDWG4. Gansu, Sichuan, Yunnan.

Elymus buschianus (Roshev.) Tsvelev. *Novosti Sist. Vyssh. Rast.*, 9: 61 (1972).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, U. Quattrocchi, *CRC World Dictionary of Grasses* (2006), N. Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Agropyron buschianum* Roshev., *Bull. Jard. Bot. Acad. Sc. URSS*, 30: 301 (1932). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Russia, Ader: Busch.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ana, indicating connection. In honor of Elizabeth Alexandrowna Busch (1886–1960) and Nicolai Adolfovitch Busch (1869–1941) who collected in the Caucasus, former Soviet Union.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms erect or geniculately ascending, 45–80 cm long. Culm-internodes distally pruinose. Ligule an eciliate membrane. Leaf-blades flat or convolute, 10–20 cm long, 3–6 mm wide. Leaf-blade surface scaberrulous, rough adaxially. Leaf-blade margins scaberrulous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 8–17 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, crowded. Rhachis internodes linear, 10–15 mm long. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets elliptic to oblong, laterally compressed, 11–20 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, 7–10 mm long, 1 length of upper glume, coriaceous, without keels, 5–7 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex dentate, 2–3 -fid, mucicous or mucronate. Upper glume lanceolate, 7–10 mm long, 1 length of adjacent fertile lemma, coriaceous, without keels, 5–7 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex dentate, 2–3 -fid, mucicous or mucronate.

Florets. Fertile lemma lanceolate or elliptic, 8–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface pubescent. Lemma apex dentate, 2 -fid, mucronate. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Caucasus, Western Asia. Iran.

TDWG4.

Elymus cacuminus B. Rong Lu & B. Salomon. *Nordic J. Bot.*, 13(4): 355 (1993).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China, Tibet, Lhasa: Yang et al. 889758 (LD holo, K, PE, SAUTI).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. cacumen*, summit. From the Tibetan Plateau.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 25–57 cm long, 2–4 -noded. Leaf-sheaths pilose. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 0.5 mm long. Leaf-blades involute, 2–15 cm long, 1–6 mm wide, light green or purple. Leaf-blade surface scabrous, rough abaxially, pubescent, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 4–13 cm long, 8–12 mm wide. Rhachis flattened, scabrous on surface, scabrous on margins. Spikelet packing broadside to rhachis, contiguous or lax. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 25–40 mm long, 2.5–4.5 mm wide, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes persistent, similar. Lower glume lanceolate, 2–6 mm long, 0.7–0.8 length of upper glume, coriaceous, much thinner on margins, without keels, 1–5 -veined. Lower glume lateral veins absent or distinct. Lower glume surface scabrous, rough on veins. Lower glume apex acuminate, mucronate. Upper glume lanceolate, 2.5–9 mm long, 0.3–0.8 length of adjacent fertile lemma, coriaceous, with membranous margins, without keels, 3–7 -veined. Upper glume surface scabrous, rough below. Upper glume apex acuminate, mucronate.

Florets. Fertile lemma lanceolate or elliptic, 8–11 mm long, 1.2–2 mm wide, coriaceous, 5 -veined, more than 3-veined. Lemma surface scabrous, glabrous or pubescent. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn curved, 15–30 mm long overall. Palea 0.9 length of lemma, 2 -veined. Palea keels ciliate. Palea surface glabrous or puberulous, hairy on back. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.3–2 mm long, yellow or purple.

$2n = 28$ (4 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. China. China South Central, Tibet. **Indian Subcontinent.** Eastern Himalaya, Nepal.

TDWG4. Sichuan.

Elymus caesifolius A. Lvve ex S.L. Chen. *Fl. China* 22: 412 (2006).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria glaucifolia* Keng, *Acta Univ. Nankin. Sci. Nat.* 3: 57 (1963)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Xizang: Mage, 9 Sept. 1952, R.C. Ching 2548 (HT: PE).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 577).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Culms erect, 50 cm long, 2 mm diam., 2–3 -noded, with 0.33–0.5 of their length below uppermost node. Culm-nodes glabrous. Leaf-sheaths 12.5–18.5 cm long, glabrous on surface. Ligule an eciliate membrane, 0.2–0.5 mm long, scarious, truncate. Leaf-blades erect, 6.5–12 cm long, 3–5 mm wide, glaucous. Leaf-blade surface scabrous, rough adaxially or on both sides. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, bilateral, 6.5–10 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, regular, 2 -rowed. Rhachis internodes 8–16 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 13–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1–1.3 mm long, pubescent. Floret callus pubescent.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate or oblong, 4–7 mm long, coriaceous, much thinner on margins, without keels, 3 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acute or acuminate, muticous. Upper glume lanceolate or oblong, 6–8 mm long, coriaceous, with scarious margins, without keels, 3–5 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex acuminate, muticous.

Florets. Fertile lemma lanceolate or oblong, 9–11 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface scabrous, rough on veins. Lemma apex awned, 1 -awned. Principal lemma awn reflexed, 15–30 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels ciliate, adorned above. Palea surface pubescent, hairy on back, hairy above. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, hairy at apex, apex unappendaged. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Tibet.

Elymus caianus S.L. Chen & G.H. Zhu. *Novon* 12(3): 425 (2002).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Xizang: Gongbogyamda, along bank of river, 3970 m, 21 Sept. 1988, J.L. Yang et al. 880788 (HT: SAUTI).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 595).

Derivation (Clifford & Bostock 2007): L. -*anus*, indicating connection. In honor of Lian-bing Cai (fl. 1996) Chinese botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Tibet.

Elymus (Roegneria) calcicola (Keng) A. Lvve. *Feddes Repert.* 95: 453 (1984).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria calcicola* Keng ex Keng & S.L. Chen, *Acta Univ. Nankin. Sci. Nat.* 1963(1): 21 (1963)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Guizhou: Bijie, 3 June 1943, S.Y. Hou 2186 (HT: NJU).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 586 & Fig. 592).

Derivation (Clifford & Bostock 2007): L. *calx*, lime; -*cola*, dweller. Growing on limestone.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms geniculately ascending, 100 cm long, 1–1.5 mm diam., 5 -noded, with 0.75 of their length below uppermost node. Leaf-sheaths 15 cm long, longer than adjacent culm internode, striately veined, glabrous on surface. Ligule an eciliate membrane, 0.5 mm long, truncate. Leaf-blades 10–20 cm long, 4–5 mm wide, glaucous and dark green, discolorous with last colour beneath. Leaf-blade surface pilose, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight or flexuous, bilateral, 12–20 cm long. Rhachis flattened, ciliate on margins. Spikelet packing broadside to rhachis, regular, 2 -rowed. Rhachis internodes 7–12 mm long (lowest -30). Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 12–17 mm long, breaking up at maturity, disarticulating below each fertile floret. Spikelet callus base acute. Rhachilla internodes 1–2 mm long, pubescent. Floret callus pubescent.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate or oblong, 5–8 mm long, coriaceous, without keels, 3–5 -veined. Lower glume surface glabrous. Lower glume apex acuminate, muticous. Upper glume lanceolate or oblong, 6–10 mm long, coriaceous, without keels, 5–7 -veined. Upper glume surface glabrous. Upper glume apex acuminate, muticous.

Florets. Fertile lemma lanceolate, 9–11 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface glabrous or puberulous. Lemma apex awned, 1 -awned. Principal lemma awn straight, 15–25 mm long overall. Palea lanceolate, 1 length of lemma, 2 -veined. Palea surface puberulous, hairy on back. Palea apex emarginate or obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, 1 mm long, membranous, glabrous. Anthers 3, 2 mm long, yellow. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, oblong, sulcate on hilar side, 6 mm long, dark brown, hairy at apex, apex unappendaged. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central.

TDWG4. Guizhou, Sichuan, Yunnan.

Elymus calderi M.E. Barkworth. *Syst. Bot.*, 21(3): 353 (1996).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Canada. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Canada: Yukon Territory: Mile 945, Alaska Hwy, near Takhini Rv. Bridge 60o 52'N, 135o 42'W, common on open grassy flats by alkaline pondss, 2100 ft., *J.A. Calder & I. Kukkonen 28103* (HT: DAO).

Illustrations (Journals): *Systematic Botany* (21: 352, Fig.1 (1996)).

Derivation (Clifford & Bostock 2007): In honor of James Alexander Calder (1915–1990) Canadian botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Rhizomes elongated. Culms erect, 50–100 cm long. Culm-internodes thin-walled. Culm-nodes purple. Leaves mostly basal. Leaf-sheaths glabrous on surface or puberulous, outer margin glabrous or hairy. Leaf-sheath auricles falcate, 2–3 mm long. Ligule an eciliate membrane, 0.2–0.8 mm long, truncate. Collar pubescent. Leaf-blades 2–4 mm wide, stiff. Leaf-blade surface scaberulous, rough adaxially, glabrous or pubescent, sparsely hairy, hairy abaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 6–10 cm long. Rhachis flattened, glabrous on surface or pubescent on surface, pubescent on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, 3–12.5 mm long. Rhachis internode tip flat. Spikelets solitary or in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 8.5–18 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, 3.5–12.5 mm long, 1 length of upper glume, coriaceous, without keels, 3(–5) -veined. Lower glume surface pubescent. Lower glume apex acute. Upper glume lanceolate, 3.5–12.5 mm long, 0.6–0.9 length of adjacent fertile lemma, coriaceous, without keels, 3(–5) -veined. Upper glume surface pubescent. Upper glume apex acute.

Florets. Fertile lemma lanceolate to oblong, 8–10 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma surface villous. Lemma apex acute, muticous or mucronate or awned, 1 -awned. Principal lemma awn 1–2 mm long overall. Palea 1 length of lemma. Palea keels ciliolate, with hairs 0.2–0.6 mm long. Palea surface pubescent, hairy on back, hairy all along or above. Palea apex emarginate or truncate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Caryopsis with adherent pericarp. $2n = 28$ (1 ref TROPICOS).

Distribution (TDWG). Continent. North America.

Country /Province /State. Subarctic America, Western Canada, North-central USA. Alaska, Yukon, Northwest Territories. British Columbia. Iowa.

Elymus canadensis Linn. *Sp. Pl.* 83 (1753).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Canada. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: LT: - 3 Canadensis (LINN-100.3; ILT: S, US-78737 (fragm. ex LINN & photo), US-865946 (fragm. ex S)). LT designated by Hitchcock, *Contr. U. S. Nat. Herb.* 12: 124 (1908).

Illustrations (Books): K.F.Best, et al, *Prairie Grasses* (1971) (115), F.W.Gould, *The Grasses of Texas* (1975) (165, Fig. 83 as var. *canadensis*), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (304, as var. *canadensis*, var. *robustus* & var. *brachystachys*).

Images: R.Darke, *Ornamental Grasses* (2004);, R.Darke, *The Encyclopaedia of Grasses for Liveable Landscapes* (2007);.

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From Canada.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes absent. Culms decumbent, 80–150 cm long. Leaf-sheath oral hairs lacking. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 0.5–1 mm long, truncate. Leaf-blades flat or conduplicate, 15–40 cm long, 4–12 mm wide. Leaf-blade surface glabrous or pubescent.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, deflexed or drooping, bilateral, 8–20 cm long. Rhachis flattened, pubescent on surface (sparsely). Spikelet packing broadside to rhachis, irregular. Rhachis internodes oblong. Spikelets in pairs or clustered at each node. Fertile spikelets sessile, 2–4 in the cluster.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 12–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Spikelet callus glabrous, base truncate.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume linear, 5–7 mm long, 1 length of upper glume, coriaceous, without keels, 2–4 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous. Lower glume apex acuminate, awned, 1 -awned, awn 5–7 mm long. Upper glume linear, 5–7 mm long, 0.6–0.7 length of adjacent fertile lemma, coriaceous, without keels, 2–4 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous. Upper glume apex acuminate, awned, 1 -awned, awn 5–7 mm long.

Florets. Fertile lemma lanceolate, 8–10 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface glabrous or hispidulous. Lemma apex acute, awned, 1 -awned. Principal lemma awn flexuous, 15–50 mm long overall. Palea 2 -veined. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2, protandrous, laterally exerted. Ovary pubescent on apex. Hilum linear.

$2n = 28$ (6 refs TROPICOS).

Distribution (TDWG). Continent. Europe (*), Temperate Asia, North America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al), Ireland (*). **China.** China North-Central. **Subarctic America, Western Canada, Eastern Canada, Northwest USA, North-central USA, Northeast USA, Southwestern USA, South-central USA, Southeastern USA, Mexico.** Yukon. Alberta, British Columbia, Manitoba, Saskatchewan. Nova Scotia. Colorado, Idaho, Montana, Oregon, Washington, Wyoming. Illinois, Iowa, Kansas, Minnesota, Missouri, North Dakota, Nebraska, Oklahoma, South Dakota, Wisconsin. Arizona, California, Nevada, Utah. New Mexico, Texas. Arkansas, Delaware, Florida, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, District of Columbia. Northeast Mexico.

TDWG4. Beijing. Coahuila, Chihuahua, Neuvo Leon, Queretaro, San Luis Potosi.

Elymus canaliculatus (Nevski) Tsvelev. *Akad. Nauk SSSR Bot. Inst. Komarova, Rast. Tsentral. Azii, Fasc.* 4, 220 (1968).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from Tajikistan. **Basionym or Replaced Name:** *Agropyron canaliculatum* Nevski, *Izv. Bot. Sada Akad. Nauk SSSR* 30: 509 (1932)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Tajikistan: Darvaz, Peter the Great Range southern slope, Vereshkai glacier, 3350 m, 29 July 1899, V. *Lipskii* 2500 (HT: LE; IT: LE).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. *canalis*, channel; *-ula*, diminutive; *-ata*, possessing. Leaf-blades deeply channelled.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Flower and Fruit. $2n = 28$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. Middle Asia, China, Russia. Tadjikistan. Tibet. Indian Subcontinent. Pakistan.

Elymus caninus (L.) Linn. *Fl. Suec.* 39 (1755).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960) (as *Agropyron*), N.Tsvelev, *Grasses of the Soviet Union* (1983) (& as *Agropyron*), T.Koyama, *Grasses of Japan and its neighboring regions* (1987) (as *Agropyron*).

TYPE from Europe. **Basionym or Replaced Name:** *Triticum caninum* L., *Sp. Pl.* 1: 86–87 (1753). T:<Type of Basionym>: *fide* TROPICOS and Key Synonymy Database: LT: (LINN-100.10). LT designated by Coe & van Slageren in Cafferty et al., *Taxon* 49(2): 258 (2000).

ST?: (LINN; IST: US-865944 (fragm. ex LINN)). "canninum" in Linnaeus' hand.

Recent Synonyms: *Agropyron caninum* (L.) Beauv., *Agrost.* 102. (1812).

Illustrations (Books): C.E.Hubbard, *Grasses* (1968) (94 & 96 as *Agropyron donianum*), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (323), E.Hafliger & E.Schultz, *Grass Weeds*, CIBA-GEIGY (2:2(1980) as *Agropyron*).

Derivation (Clifford & Bostock 2007): *L. canus*, greyish-white; -inus, belonging to. Foliage or inflorescences grey-green.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–110 cm long, 2–5 -noded. Leaves cauline. Leaf-sheaths glabrous on surface or pubescent. Leaf-sheath oral hairs lacking. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 0.5–1.5 mm long, erose, truncate. Leaf-blades 10–30 cm long, 4–13 mm wide. Leaf-blade surface ungrooved, scaberulous, glabrous or pilose. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping or erect, bilateral, 5–20 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, regular, 2 -rowed. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate or oblong, laterally compressed, 10–20 mm long, breaking up at maturity, disarticulating below each fertile floret. Spikelet callus glabrous, base truncate. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate, 7–10 mm long, 1 length of upper glume, coriaceous, without keels, 2–5 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous. Lower glume apex acuminate, mucicous to mucronate. Upper glume lanceolate, 7–10 mm long, 0.7–0.8 length of adjacent fertile lemma, coriaceous, without keels, 2–5 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous, rough on veins. Upper glume apex acuminate, mucicous to mucronate.

Florets. Fertile lemma lanceolate to oblong, 9–13 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma apex acute, awned, 1 -awned. Principal lemma awn straight or flexuous, 7–20 mm long overall, limb scabrous. Palea lanceolate, 1 length of lemma, 2 -veined. Palea keels scabrous. Palea apex truncate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3, 2–3 mm long. Stigmas 2, protandrous, laterally exserted. Ovary pubescent on apex. Caryopsis with adherent pericarp, fusiform, isodiametric, estipitate, sulcate on hilar side, smooth, apex unappendaged. Embryo 0.2 length of caryopsis. Hilum linear, 0.9 length of caryopsis. Endosperm farinose.

$N = 42$ (1 ref TROPICOS). $2n = 28$ (19 refs TROPICOS).

Distribution (TDWG). Continent. Europe, Temperate Asia, Tropical Asia, North America.

Region. Northern Europe, Middle Europe, Southwestern Europe, Southeastern Europe, Eastern Europe.

Country /Province /State. : Denmark, Finland, Great Britain, Iceland, Ireland, Northern Ireland, Norway, Sweden. : Austria, Liechtenstein, Belgium, Luxembourg, Czechoslovakia, Germany, Hungary, Netherlands, Poland, Switzerland. : Corsica, Channel Islands, France, Monaco, Portugal, Sardinia, Andorra, Gibraltar, Spain. : Albania, Bulgaria, Greece, Italy, San Marino, Vatican, Romania, Malta, Sicily, Yugoslavia. Belarus, Estonia, Kaliningrad, Latvia, Lithuania, Baltic States, Krym, Central European Russia, East European Russia, North European Russia, South European Russia, Northwest European Russia, Moldova, Ukraine. Siberia, **Middle Asia, Caucasus, Western Asia, China, Eastern Asia, Russia.** Altay, Buryatiya, Chita, Irkutsk, Krasnoyarsk,

Tuva. Kazakhstan, Kirgizistan, Turkmenistan, Uzbekistan. Iran, Iraq. Xinjiang. Japan. Japan Honshu. **Indian Subcontinent**. Pakistan, West Himalaya. **Subarctic America, Western Canada, Northwest USA**. Yukon. Alberta. Washington.

TDWG4. Jammu Kashmir.

Elymus caucasicus (C. Koch) Tsvelev. *Novosti Sist. Vyssh. Rast.*, 9: 61 (1972).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Caucasus. **Basionym or Replaced Name:** *Roegneria caucasica* K. Koch, *Linnaea* 21(4): 413 (1848)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *C. Koch s.n.*, Caucasus: Daghestan: in Kuba, alt. 150–310 m (B(destroyed?)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ica, belonging to. From Caucasus Mountains, former Soviet Union.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Culms erect or geniculately ascending, 50–100 cm long. Culm-internodes distally glabrous or pubescent. Ligule an eciliate membrane. Leaf-blades 9–18 cm long, 3–7 mm wide, flaccid, mid-green or glaucous. Leaf-blade surface scabrous, rough adaxially, glabrous or pubescent, sparsely hairy, hairy adaxially. Leaf-blade margins scabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 9–11 cm long, bearing 4–5 fertile spikelets on each. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear, 20–24 mm long. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 20–24 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume oblong, 2–4 mm long, 0.5–0.75 length of upper glume, coriaceous, without keels, 5–7 -veined. Lower glume apex acuminate. Upper glume oblong, 4–5 mm long, 0.4 length of adjacent fertile lemma, coriaceous, without keels, 5–7 -veined. Upper glume apex acuminate.

Florets. Fertile lemma oblong, 10–12 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma apex acute, awned, 1 -awned. Principal lemma awn 25–30 mm long overall. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (9 refs TROPICOS).

Distribution (TDWG). **Continent.** Temperate Asia.

Country /Province /State. **Middle Asia, Caucasus, Western Asia.** Tadjhikistan. Iran.

TDWG4.

Elymus cheniae (L.B. Cai) G.H. Zhu. *Novon* 12(3): 426 (2002).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria cheniae* L.B. Cai, *Acta Phytotax. Sin.* 34(3): 333–335, pl. 3, f. 10–18 (1996). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Xinjiang: Zhaosu, inter frutices, 2300 m, 3 Aug. 1978, *K. Tuo 780875* (HT: XJBI).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 596).

Derivation (Clifford & Bostock 2007): In honor of Shou Liang Chen (1921-) Chinese botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms erect or geniculately ascending, 30–60 cm long, 1.5–2.5 mm diam., 2–4 -noded. Culm-internodes distally glabrous. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 0.5 mm long, truncate. Leaf-blades flat or involute, 3–10 cm long, 2–4 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 5–13 cm long, 4 mm wide. Rhachis flattened, glabrous on surface, ciliate on margins. Spikelet packing broadside to rhachis. Rhachis internodes 5–7 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–14 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes persistent, similar. Lower glume lanceolate, 7–11 mm long, coriaceous, much thinner on margins, without keels, 4–6 -veined. Lower glume surface glabrous. Lower glume apex acuminate, mucicous or mucronate. Upper glume lanceolate, 7–11 mm long, coriaceous, with membranous margins, without keels, 4–6 -veined. Upper glume surface glabrous. Upper glume apex acuminate, mucicous or mucronate.

Florets. Fertile lemma lanceolate, 8–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scabrous. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 1–3 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels ciliolate. Palea surface glabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.5–2 mm long, yellow. Caryopsis with adherent pericarp, oblong, 6 mm long.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Xinjiang.

Elymus churchii J.J.N. Camp. *Sida*, Vol. 22 No. 1: 486 (2006).

TYPE from USA. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: USA: Arkansas: Conway Co.; Petit Jean State Park, rocky bluffs, P.O. Morrilton, 1500 ft, 3 Jul 1957, D. Demaree 37234 (HT: UARK; IT: OKL, SMU-BRIT).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (315).

Illustrations (Journals): *Sida* (22:487 (2006)).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 50–120 cm long, 4–8 -noded. Leaf-sheaths glabrous on surface. Leaf-sheath auricles falcate, 1–2 mm long. Ligule an eciliate membrane, 0.5–1 mm long. Leaf-blades 3–11 mm wide. Leaf-blade surface glabrous or pubescent, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, flexuous, bilateral, 10–18 cm long, 30–50 mm wide. Rhachis ciliate on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3(–5) fertile florets, with a barren rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, dorsally compressed, 10–15 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes both absent or obscure or two, persistent, similar, shorter than spikelet or reaching apex of florets. Lower glume subulate, 0–15 mm long, 0–1 -veined. Lower glume lateral veins absent. Upper glume subulate, 0–15 mm long, 0–1 -veined. Upper glume primary vein absent or distinct. Upper glume lateral veins absent.

Florets. Fertile lemma lanceolate, 8–10 mm long, coriaceous, without keel, more than 3-veined. Lemma surface glabrous or pubescent. Lemma apex awned, 1 -awned. Principal lemma awn spreading, (10–)20–30(–35) mm long overall. Palea 7–9 mm long.

Flower and Fruit. Anthers 3, 2.5–3 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. North-central USA and Southeastern USA. Missouri, Oklahoma.

Elymus (Roegneria) ciliaris (Trin.) Tsvelev. *Novosti Sist. Vyssh. Rast.*, 9: 61 (1972).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.Tsvelev, *Grasses of the Soviet Union* (1983), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *Agropyron*), T.Koyama, *Grasses of Japan and its neighboring regions* (1987) (as *Agropyron*).

TYPE from China. **Basionym or Replaced Name:** *Triticum ciliare* Trin., *Enum. Pl. China Bor.* 72 (1833)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China, Kantai: Bunge 14 (LE holo).

Recent Synonyms: *Agropyron ciliare* (Trin.) Franch., *Nouv. Arch. Mus. Hist. Nat., Paris, Ser. 2,(7)* (Pl. David.) 151 (1884).

Illustrations (Books): T.Koyama, *Grasses of Japan and its neighbouring regions* (1987) (70, Fig 21 as *Agropyron ciliare*), N.Walsh & T.Entwistle, *Flora of Victoria Vol 2* (1994) (as *Agropyron*), M.E.Barkworth et al, *Flora of North America north of Mexico Vol 24 Poaceae, part 1* (2007) (339), S-L Chen et al, *Flora of China, Illustrations, Poaceae* (2007) (Figs. 563/564/565 as *Elymus ciliaris* var. *ciliaris*, *E. ciliaris* var. *hackelianus*, *E. ciliaris* var. *hirtiflorus* & *E. ciliaris* var. *amurensis*).

Derivation (Clifford & Bostock 2007): *L. cilium*, eyelid; -are, pertaining to. Glumes or lemmas ciliate on nerves or margins.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, culms solitary or caespitose. Culms erect or geniculately ascending, 30–100 cm long, 1.5–3.5 mm diam., 3–4 -noded. Leaves basal and cauline. Leaf-sheaths glabrous on surface or pubescent. Ligule an eciliate membrane, 0.3 mm long. Leaf-blades 10–25 cm long, 3–10 mm wide. Leaf-blade surface glabrous or pilose.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, ascending, arcuate, bilateral, 10–20 cm long, 8–10 mm wide. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, 10–25 mm long. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–22 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1–1.5 mm long, pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 5–8 mm long, 0.7–0.9 length of upper glume, coriaceous, without keels, 5–7 -veined. Lower glume apex with a unilateral tooth or dentate, 1–2 -fid, acute or acuminate. Upper glume lanceolate, 7–9 mm long, coriaceous, without keels, 5–7 -veined. Upper glume apex with a unilateral tooth or dentate, 1–2 -fid, acute or acuminate.

Florets. Fertile lemma oblong, 7–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma lateral veins ribbed. Lemma surface glabrous or pubescent. Lemma margins ciliate. Lemma apex dentate, 1–2 -fid, acute, awned, 1 -awned. Principal lemma awn curved, 10–30 mm long overall. Palea 0.66–0.8 length of lemma. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Caryopsis with adherent pericarp. $2n = 28$ (9 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. Russian far east, **China, Mongolia, Eastern Asia, Russia.** Amur, Primorye, Sakhalin. China South Central, Inner Mongolia, Manchuria, China North-Central, China Southeast. Mongolia. Japan, Korea. Japan Hokkaido, or Honshu, or Shikoku, or Kyushu. **Indian Subcontinent.** Assam.

TDWG4. Gansu, Hebei, Shaanxi, Shandong, Shanxi. Anhui, Fujian, Henan, Hunan, Jiangsu, Jiangxi, Zhejiang. Guizhou, Hubei, Sichuan, Yunnan. Assam.

Elymus clivorum A. Melderis. *Notes Roy. Bot. Gard. Edinburgh*, 42(1): 77 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Turkey. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Turkey: B8 Mus: 6 km from Caylar to Varto, 1750 m, slopes in steppe, 11 Jul 1966, *Davis 46308* (HT: E).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. clivus*, hill. Of hills, that is growing on slopes in steppe lands.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Rhizomes short. Culms 45–50 cm long. Leaf-sheaths outer margin hairy. Ligule an eciliate membrane. Leaf-blades flat or involute, 2–3 mm wide. Leaf-blade surface pubescent, hairy adaxially. Leaf-blade margins cartilaginous, spinulose.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 5–6 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–11 mm long, falling entire.

Glumes. Glumes similar, shorter than spikelet. Lower glume elliptic or oblong, 5–6 mm long, 1 length of upper glume, coriaceous, without keels, 3–4 -veined. Lower glume lateral veins ribbed. Lower glume apex acute. Upper glume elliptic or oblong, 5–6 mm long, 0.8–0.9 length of adjacent fertile lemma, coriaceous, without keels, 3–4 -veined. Upper glume lateral veins ribbed. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate to oblong, 6–7 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma apex obtuse, muticous or mucronate. Palea 1 length of lemma. Palea keels ciliolate, adorned above. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Western Asia. Turkey.

Elymus colorans (Melderis) A. Love. *Feddes Repert.* 95: 457 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Afghanistan. **Basionym or Replaced Name:** *Agropyron colorans* Melderis, *Biol. Meddel. Kongel. Danske Vidensk. Selsk.* 14(4): 85 (1965)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Afghanistan, Basarak: Gilli 698.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths sparsely hairy. Culms geniculately ascending, 35–60 cm long, 4–5 -noded. Culm-nodes glabrous. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs lacking. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 0.2 mm long, lacerate. Leaf-blades 5–19 cm long, 2–6 mm wide, glaucous. Leaf-blade surface scabrous, glabrous or pilose, sparsely hairy, hairy adaxially. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight, bilateral, 6–8 cm long. Rhachis flattened, smooth on margins, ciliate on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 12–13 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1.5–2 mm long, pubescent.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate or oblong, 6.5–7.5 mm long, 0.8–0.9 length of upper glume, coriaceous, much thinner on margins, without keels, 3–5 -veined. Lower glume surface asperulous. Lower glume apex acuminate, muticous or awned, 1 -awned, awn 0–1.5 mm long. Upper glume lanceolate or oblong, 7.5–9 mm long, 0.9 length of adjacent fertile lemma, coriaceous, with hyaline margins, without keels, 3–5 -veined. Upper glume surface asperulous. Upper glume apex acuminate, muticous or awned, 1 -awned, awn 0–1.5 mm long.

Florets. Fertile lemma lanceolate, 8.5–10 mm long, coriaceous, more than 3-veined. Lemma surface pubescent. Lemma apex acute, awned, 1 -awned. Principal lemma awn 1.5 mm long overall. Palea lanceolate, 1 length of lemma. Palea keels ciliolate. Palea surface puberulous, hairy on back. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Western Asia. Iran.

Elymus (Roegneria) confusus (Roshev.) Tsvelev. *Akad. Nauk SSSR Bot. Inst. Komarova, Rast. Tsentral. Azii, Fasc.* 4, 22 (1968).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Agropyron confusum* Roshev., *Bot. Mat. Med.* 5: 150 (1924)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Russia, Irkutsk: Turczaninov (LE lecto).

Recent Synonyms: *Elymus pubiflorus* (Roshev.) G.A. Peshkova, non Davy & Merr.(1902), *Novosti Sist. Vyssh. Rast.*, 22: 41 (1985).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. confused. Likely to be mistaken for another species.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms 50–120 cm long. Ligule an eciliate membrane. Leaf-blades 5–9 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 10–20 cm long, bearing 8–15 fertile spikelets on each. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear, 7–15 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–20 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 3–8 mm long, 1 length of upper glume, coriaceous, without keels, 3 -veined. Lower glume apex acuminate, awned, 1 -awned, awn 2–5 mm long. Upper glume lanceolate, 3–8 mm long, 0.33–0.75 length of adjacent fertile lemma, coriaceous, without keels, 3 -veined. Upper glume apex acuminate, awned, 1 -awned, awn 2–5 mm long.

Florets. Fertile lemma lanceolate, 9–11 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface asperulous or scaberulous. Lemma apex acute, awned, 1 -awned. Principal lemma awn spreading, 20–25 mm long overall. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 1.5–2.7 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (4 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Siberia, Russian far east, **China, Mongolia.** Buryatiya, Chita, Irkutsk, Krasnoyarsk, Tuva. Amur, Kamchatka, Khabarovsk, Magadan, Sakhalin. Inner Mongolia, Xinjiang.

TDWG4. Chiloe, Aisen, Magellanes.

Elymus cordilleranus G. Davidse & R.W. Pohl. *Novon*, 2(2): 100 (1992).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ecuador. **Basionym or Replaced Name:** *Triticum attenuatum* Kunth, *Nov. Gen. Sp. (quarto ed.)* 1: 180 (1815) [1816]

. T:<Type of Basionym>; *fide* TROPICOS and Kew Synonymy Database: : Based on *Triticum attenuatum* ; HT: *Humboldt & Bonpland s.n.*, Jan, Ecuador: Pichincha: 2430 m (P-Bonpl; IT: P, US (fragm.)).

Illustrations (Books): S.A.Renvoize, *Gramineas de Bolivia* (1998) (253, Fig 50), W.Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (30, Fig.4 as *Agropyron attenuatum*).

Illustrations (Journals): *Ruizia* (13:214, Fig 23d-e (1993) as *Agropyron attenuatum*).

Derivation (Clifford & Bostock 2007): Sp. cordillera, mountain range; L. -anus, indicating location. Species of high mountains.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Rhizomes absent or elongated. Culms erect, 100–200 cm long, 2–3 mm diam. Culm-internodes distally glabrous. Culm-nodes constricted, brown. Lateral branches lacking. Ligule an eciliate membrane, 0.7 mm long. Leaf-blades 10–20 cm long, 2–5 mm wide. Leaf-blade surface glabrous or puberulous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 11–14 cm long, 5 mm wide. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, 6–7 mm long. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 16–17 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 2.5–2.8 mm long. Floret callus disarticulating obliquely.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate or ovate, 11 mm long, 1 length of upper glume, coriaceous, without keels, 5–7 -veined. Lower glume apex acute. Upper glume lanceolate or ovate, 11 mm long, 0.6–1.2 length of adjacent fertile lemma, coriaceous, without keels, 5–7 -veined. Upper glume apex acute.

Florets. Fertile lemma lanceolate, 9–18 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma apex acute, mucicous or mucronate or awned, 1 -awned. Principal lemma awn 0–1.5 mm long overall. Palea 1 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2.5 mm long. Stigmas 2. Ovary with a fleshy appendage below style insertion, pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Mesoamerica, Northern South America, Western South America, Southern South America. Costa Rica, Panama. Venezuela. Bolivia, Colombia, Ecuador.

TDWG4.

Elymus curtiaristatus (L.B.Cai) S.L.Chen & G.H.Zhu. *Novon* 12(3): 426 (2002).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria curtiaristata* L.B. Cai, *Guihaia* 16(3): 200–201, pl. 1, f. 10–15 (1996). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Xizang: Changdu, Xishan, in clivis, 3400 m, 22 Aug. 1973, *Exped. Xizang 1988* (HT: HNWP).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. curtis*, short; *arista*, bristle; *-atus*, possessing. Awn short relative to the base of the lemma.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Butt sheaths villous. Culms erect, 40–65 cm long, 1–2 mm diam., 3 -noded. Culm-internodes antrorsely scabrous. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 0.5 mm long, truncate. Leaf-blades involute, 4–10 cm long, 2–3 mm wide. Leaf-blade surface hirsute, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight or arcuate, bilateral, 9–12 cm long. Rhachis flattened, glabrous on surface, scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes 7–12 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 13–19 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent. Floret callus pubescent.

Glumes. Glumes persistent, similar. Lower glume lanceolate, 5–6 mm long, coriaceous, without keels, 3–5 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acuminate. Upper glume lanceolate, 5–6 mm long, coriaceous, without keels, 3–5 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, 8–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scabrous, rough above. Lemma margins scabrous. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 5–10 mm long overall. Palea 1.1 length of lemma, 2 -veined. Palea keels ciliolate, adorned above. Palea surface scabrous. Palea apex truncate or obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 2.3–3.2 mm long, black. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Tibet.

Elymus (Roegneria) curvatus Piper. *Bull. Torrey Bot. Club* 30(4): 233 (1903).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: USA: Washington: Stevens County: Box Canyon, Pend Oreille River, 2 Aug 1902, *F.G. Kreager 375*.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (301).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Distribution (TDWG). Continent. North America.

Country /Province /State. Western Canada, Eastern Canada, Northeast USA. British Columbia, Manitoba, Saskatchewan. Quebec. New York.

Elymus curvifolius (Lange) A. Melderis. *Bot. J. Linn. Soc.*, 76(4): 377 (1978).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, T.G.Tutin et al, *Flora Europaea* 5 (1980).

TYPE from Pakistan. **Basionym or Replaced Name:** *Agropyron curvifolium* Lange, *Naturhist. For. Kjenhavn. Vid. Medd. II* 55 (1860)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Pakistan, Kurram valley: Aitchison 903 (K iso).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 60–100 cm long. Culm-internodes distally pubescent. Ligule an eciliate membrane. Leaf-blades convolute, 1–3 mm wide, stiff, glaucous. Leaf-blade

surface scabrous, rough adaxially, puberulous, hairy adaxially. Leaf-blade margins scabrous. Leaf-blade apex pungent.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 13–15 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 6–8 mm long, 1 length of upper glume, coriaceous, without keels, 5 -veined. Lower glume apex acute. Upper glume lanceolate, 6–8 mm long, 1 length of adjacent fertile lemma, coriaceous, without keels, 5 -veined. Upper glume apex acute.

Florets. Fertile lemma oblong, 7–8 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface glabrous or pubescent. Lemma apex acute, muticous. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 4 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Europe.

Region. Southwestern Europe.

Country /Province /State. : Spain.

Elymus curvatiformis (Nevski) A.Love. *Feddes Repert.* 95: 454 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960) (as *Agropyron*).

TYPE from Afghanistan. **Basionym or Replaced Name:** *Agropyron curvatiforme* Nevski, *Izv. Bot. Sada Akad. Nauk SSSR* 30: 633 (1932). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: T: *J.E.T.Aitchison* 803, 903, Dec 1879, Afghanistan: Kurrum Valley: near Shalizan, Shendtoi & Sikaram (LE).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. forma*, appearance. Resembling *Agropyron curvatum*.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 20–40 cm long. Culm-internodes smooth, distally glabrous. Ligule an eciliate membrane. Leaf-blades convolute, 3–6 cm long, 1–2 mm wide, stiff. Leaf-blade surface smooth. Leaf-blade margins scabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, straight or arcuate, bilateral, 5–10 cm long, bearing 3–8 fertile spikelets on each. Rhachis flattened, glabrous on surface, scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets, or of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–15 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, 8–11 mm long, 1 length of upper glume, coriaceous, much thinner on margins, 5–7 -veined. Lower glume apex with a unilateral tooth, setaceously acuminate. Upper glume lanceolate, 8–11 mm long, coriaceous, with membranous margins, 5–7 -veined. Upper glume apex with a unilateral tooth, setaceously acuminate.

Florets. Fertile lemma elliptic, 8–10 mm long, chartaceous, 5 -veined, more than 3-veined. Lemma surface scabrous. Lemma apex attenuate, awned, 1 -awned. Principal lemma awn 20–30 mm long overall. Palea 1 length of lemma. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent. Pakistan.

Elymus dahuricus Griseb. Ledeb., *Fl. Ross.* 4:331 (1852).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al., *Flora of China* 22 (Poaceae) (2006), N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960),

N.Tsvelev, *Grasses of the Soviet Union* (1983), T.Koyama, *Grasses of Japan and its neighboring regions* (1987).

TYPE from Russia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Russia: Siberia: prope Charatzai, in siccis Dahuriae, *Turcz. Cat. Basic Dah. 1331* (HT: ?).

Recent Synonyms: *Elymus excelsus* Griseb., Ledeb., *Fl. Ross.* 4:331 (1852).

Illustrations (Books): T.Koyama, *Grasses of Japan and its neighbouring regions* (1987) (52, Fig 13), H.J.Noltie, *The Grasses of Bhutan* (2000) (631, Fig. 29), M.E.Barkworth et al, *Flora of North America north of Mexico Vol 24 Poaceae*, part 1 (2007) (311), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 560 as *Elymus dahuricus* var. *cylindricus*).

Derivation (Clifford & Bostock 2007): L. -ica, belonging to. From Dahuria, a region of south-eastern Siberia.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–130 cm long. Ligule an eciliate membrane. Leaf-blades aciculate or lanceolate, 10–30 cm long, 3–9 mm wide. Leaf-blade surface smooth or scaberulous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight or arcuate, bilateral, 7–23 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Spikelets in pairs. Fertile spikelets sessile, 2 in the cluster.

Fertile Spikelets. Spikelets comprising 2–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes similar, shorter than spikelet. Lower glume elliptic, 6–10 mm long, 1 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume lateral veins ribbed. Lower glume apex acute, muticous or awned, 1 -awned, awn 0.5–2 mm long. Upper glume elliptic, 6–10 mm long, 1 length of adjacent fertile lemma, coriaceous, without keels, 3–5 -veined. Upper glume lateral veins ribbed. Upper glume apex acute, muticous or awned, 1 -awned, awn 0.5–2 mm long.

Florets. Fertile lemma elliptic, 6.5–11 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma apex acute, awned, 1 -awned. Principal lemma awn straight or curved, 8–15 mm long overall. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$N = 21$ (3 refs TROPICOS). $2n = 42$ (7 refs TROPICOS).

Distribution (TDWG). Continent. Europe, Temperate Asia, Tropical Asia.

Region. Eastern Europe.

Country /Province /State. Estonia, Latvia, Lithuania. Siberia, Russian far east, **Middle Asia, Western Asia, China, Mongolia, Eastern Asia, Russia.** Altay, Buryatiya, Chita, Irkutsk, Krasnoyarsk, Tuva, West Siberia, Yakutiya. Amur, Khabarovsk, Kuril Is, Primorye, Sakhalin. Kazakhstan, Kirgizistan, Turkmenistan, Tadjikistan, Uzbekistan. Iran, Iraq. China South Central, Inner Mongolia, Manchuria, China North-Central, Qinghai, China Southeast, Tibet, Xinjiang. Mongolia. Japan, Korea. Japan Hokkaido, or Honshu, or Kyushu. **Indian Subcontinent.** Eastern Himalaya, India, Nepal, Pakistan, West Himalaya.

TDWG4. Hebei, Shaanxi, Shandong, Shanxi. Henan. Sichuan, Yunnan. Bhutan. Jammu Kashmir.

Elymus dasystachys Trin. ex Ledeb. *Fl. Alt.* 1: 120 (1829).

Accepted by: N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from Russia, Altai. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: Altai (LE-TRIN-3126.06; IST: PH?, US-865941 (fragm. ex PH)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. dasys, hairy; stachys, ear of corn. Spikelets hairy.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, culms solitary or caespitose. Rhizomes elongated, wiry. Culms 40–80 cm long. Culm-internodes thin-walled. Leaf-sheaths pubescent or pilose. Leaf-sheath auricles falcate, 1–1.5 mm long. Ligule an eciliate membrane, 0.5 mm long, erose. Leaf-blades involute, 2–4 mm wide, stiff, glaucous. Leaf-blade surface scaberulous, rough adaxially or on both sides.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 4–20 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets solitary or in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets elliptic to oblong, laterally compressed, 10–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, 7–10 mm long, 1 length of upper glume, coriaceous, without keels, 5–7 -veined. Lower glume surface pubescent. Lower glume apex acute. Upper glume lanceolate, 7–9 mm long, coriaceous, without keels, 3–5 -veined. Upper glume apex acute.

Florets. Fertile lemma lanceolate to oblong, 8–10 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma apex acute, awned, 1 -awned. Palea 1 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. North America.

Country /Province /State. Western Canada, Eastern Canada, Northwest USA, North-central USA, Northeast USA, Southwestern USA.

TDWG4. Himachal Pradesh, Jammu Kashmir.

***Elymus debilis* (L.B. Cai) S.L. Chen & G.H. Zhu. *Novon* 12(3): 426 (2002).**

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria debilis* L.B. Cai, *Acta Phytotax. Sin.* 34(3): 327–328, pl. 1, f. 1–8 (1996)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Gansu: Sunan, in forest, 2350 m, 29 July 1991, *T.N. He* 2939 (HT: HNWP) ; China: Gansu: Sunan, in forest, 2350 m, 29 July 1991, *T.N. He* 2939 (HT: HNWP).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 595).

Derivation (Clifford & Bostock 2007): L. weak. Culms decumbent often much branched at the base.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms erect, 50–60 cm long, 1–2 mm diam., 5–7 -noded. Culm-nodes pubescent. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 0.3 mm long, truncate. Leaf-blades 7–15 cm long, 3–5 mm wide. Leaf-blade surface scabrous, rough adaxially, glabrous or hirsute, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, arcuate, bilateral, 6–11 cm long, 5–7 mm wide. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes 4–5 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 9 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar. Lower glume lanceolate, 2.5–4 mm long, coriaceous, without keels, 2–3 -veined. Lower glume surface scabrous. Lower glume apex acuminate, awned, 1 -awned, awn 1.5–3 mm long. Upper glume lanceolate, 2.5–4 mm long, coriaceous, without keels, 2–3 -veined. Upper glume surface scabrous. Upper glume apex acuminate, awned, 1 -awned, awn 1.5–3 mm long.

Florets. Fertile lemma lanceolate, 7–8 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scabrous. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn flexuous, 7–10 mm long overall. Palea 1.1 length of lemma, 2 -veined. Palea keels scabrous. Palea surface scabrous. Palea apex truncate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1 mm long, yellow. Caryopsis with adherent pericarp, oblong.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China North-Central, Qinghai.

Gansu.

***Elymus (Roegneria) dentatus* (Hook.f.) T.A. Cope. *Fl. Pakistan*, 143: 623 (1982).**

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *Agropyron*), N.Tsvelev, *Grasses of the Soviet Union* (1983).

Basionym or Replaced Name: *Agropyron dentatum* Hook. f., *Fl. Brit. India* 7(22): 370–371 (1897) [1896]

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Kashmir: near Battal, Sind Valley, 10–11000 ft, 28 June 1892, *J.F. Duthie* 11601 (HT: K?; PT: LE).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. dens*, tooth; -ata, possessing. Glume apices truncate-dentate.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes elongated. Culms erect or geniculately ascending, 25–80 cm long. Ligule an eciliate membrane. Leaf-blades 10–30 cm long, 4–11 mm wide. Leaf-blade surface smooth or scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 6–15 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 12–15 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume oblong, 6–8 mm long, 0.8–0.9 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume lateral veins ribbed. Lower glume surface smooth or scabrous. Lower glume apex entire or dentate, 2 -fid, acuminate, muticous or awned, 1 -awned. Upper glume oblong, 7–9 mm long, 0.8–1 length of adjacent fertile lemma, coriaceous, without keels, 5–9 -veined. Upper glume lateral veins ribbed. Upper glume surface smooth or scabrous. Upper glume apex entire or with a unilateral tooth, acuminate, muticous or awned, 1 -awned.

Florets. Fertile lemma lanceolate or oblong, 8–9(–11) mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma surface hispidulous, hairy all along or below. Lemma apex acute, muticous or awned, 1 -awned. Principal lemma awn 0–4 mm long overall. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3, 1.5–2 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (3 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. Siberia, **Middle Asia, Western Asia, China.** Altay. Kazakhstan, Turkmenistan. Iran. **Indian Subcontinent.** Pakistan, West Himalaya.

TDWG4. Jammu Kashmir.

Elymus divaricatus Drobov. *Feddes Repert.* 21: 45 (1925).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online (as *Leymus*), U.Quattrocchi, *CRC World Dictionary of Grasses* (2006) (as *Leymus*), N.Tsvelev, *Grasses of the Soviet Union* (1983) (as *Leymus*).

TYPE from Russia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Prov. Syrdarja. Distr. Aulie-ata, prope pag. Burnoje, 1921, *Abolin & Popov 8972*.

Recent Synonyms: *Leymus divaricatus* (Drobov) Tsvelev, *Not. Syst. Herb. Inst. Bot. Acad. Sci. URSS*, 20: 430 (1960).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. divarico*, spread out. Inflorescence branches or culms regularly dividing into equal branches.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Rhizomes short. Culms geniculately ascending, 30–60 cm long. Ligule an eciliate membrane. Leaf-blades 7–15 cm long, 2–3 mm wide, glaucous. Leaf-blade surface puberulous, hairy on both sides. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Peduncle antrorsely scabrous above. Racemes 1, single, bilateral, 8–16 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, 10–25 mm long. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets cuneate, laterally compressed, 12–14 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume oblong, 6–7 mm long, 0.75 length of upper glume, coriaceous, without keels, 5 -veined. Lower glume apex entire or dentate, 2 -fid, acute, muticous or awned, 1 -awned, awn 1–2 mm long. Upper glume oblong, 8–10 mm long, 0.8 length of adjacent fertile lemma, coriaceous, without keels, 5–7 -veined. Upper glume surface smooth or scabrous. Upper glume apex acute, muticous or awned, 1 -awned, awn 2–3 mm long.

Florets. Fertile lemma oblong, 10–12 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma apex dentate, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, recurved at base of limb, 18–22 mm long overall. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Middle Asia, Caucasus, Western Asia, China. Kazakhstan.
TDWG4.

Elymus diversiglumis Scribn. & Ball. *U.S. Dept. Agric. Bull. Agrost.* 24: 48 (1901).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *T.A. Williams 2653*, 23 Jul 1897, USA: Wyoming: in rich openings of the Bear Lodge Mountains, alt. 6000 ft (US-76817).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 24 Poaceae*, part 1 (2007) (315).

Derivation (Clifford & Bostock 2007): *L. diversus*, variable; gluma, husk. One glume of some spikelets long-awned.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 70–150 cm long. Leaf-sheaths mostly shorter than adjacent culm internode. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades 15–40 cm long, 5–15 mm wide. Leaf-blade surface glabrous or pubescent, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, flexuous, bilateral, 10–20 cm long. Rhachis flattened, ciliate on margins. Spikelet packing broadside to rhachis. Rhachis internodes oblong, 3–10 mm long. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15–20 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume subulate, 2–20 mm long, 1 length of upper glume. Upper glume subulate, 2–20 mm long.

Florets. Fertile lemma lanceolate, 7–12 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface pilose. Lemma apex acute, awned, 1 -awned. Principal lemma awn 15–40 mm long overall. Palea 7.5–9 mm long. Palea surface pilose, hairy on back. Palea apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Distribution (TDWG). Continent. North America.

Country /Province /State. North-central USA, South-central USA, Southeastern USA, Mexico. Iowa, Minnesota, Missouri, South Dakota, Wisconsin.

Elymus (Roegneria) dolichatherus (Keng) A.Lvve. *Feddes Repert.* 95: 453 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria dolichathera* Keng ex Keng & S.L. Chen, *Acta Univ. Nankin. Sci. Nat.* 1963(1): 19 (1963)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Sichuan: Tianquan, 2350–3690 m, 4 June 1936, *K.L. Chou 2697* (HT: NJU).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 588).

Derivation (Clifford & Bostock 2007): *Gk dolichos*, long; *ather*, barb or spine. Spicate inflorescence longer than that of related species.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 60–90 cm long, 1–2 mm diam., 4–5 -noded, with 0.5 of their length below uppermost node. Leaf-sheaths 11–17 cm long, mostly shorter than adjacent culm internode or subequal to internodes, without keel or keeled, striately veined, glabrous on surface or pilose, outer margin hairy. Ligule an eciliate membrane, 0.5 mm long, entire or erose, truncate. Leaf-blades flat or involute, 10–20 cm long, 3–7 mm wide. Leaf-blade surface pilose, densely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 10–17, single, erect, bilateral, 5–20 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, regular, 2 -rowed. Rhachis internodes 8–10 mm long (lowest -30). Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets laterally compressed, 13–19 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 2 mm long, pubescent. Floret callus pubescent.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate or oblong, 6–8 mm long, coriaceous, without keels, 3–5 -veined. Lower glume surface asperulous, rough on veins. Lower glume apex acuminate, muticous. Upper glume lanceolate or oblong, 7–10 mm long, coriaceous, without keels, 3–5 -veined. Upper glume surface asperulous, rough on veins. Upper glume apex acuminate, muticous.

Florets. Fertile lemma lanceolate, 9–10 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface scaberulous, puberulous, hairy below. Lemma apex awned, 1 -awned. Principal lemma awn straight, 26–32 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels scaberulous. Palea surface puberulous, hairy on back, hairy above. Palea apex emarginate or obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 1.8–2 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, 3 mm long, hairy at apex, apex unappendaged. Hilum linear.

$2n = 28$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central, Inner Mongolia, Qinghai.

TDWG4. Sichuan, Yunnan.

Elymus drobovii (Nevski) Tsvelev. *Novosti Sist. Vyssh. Rast.*, 9: 61 (1972).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Agropyron drobovii* Nevski, *Izv. Bot. Sada Akad. Nauk SSSR* 30: 626 (1932)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Russia, Kara-tau: Drobov 11972.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Vasilii Petrovich Drobov (1885–1956) Russian botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Rhizomes elongated. Culms erect, 100–200 cm long. Culm-internodes smooth. Ligule an eciliate membrane. Leaf-blade base broadly rounded. Leaf-blades linear or lanceolate, 15–35 cm long, 10–15 mm wide. Leaf-blade surface scabrous, rough on both sides, glabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 8–16 cm long. Rhachis flattened, smooth on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–15 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume elliptic or oblong, 10–15 mm long, 1 length of upper glume, coriaceous, without keels, 5–7 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acute, awned, 1 -awned, awn 6–10 mm long. Upper glume elliptic or oblong, 10–15 mm long, 1.1 length of adjacent fertile lemma, coriaceous, without keels, 5–7 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex acute, awned, 1 -awned, awn 6–10 mm long.

Florets. Fertile lemma elliptic, 9–13 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface pubescent. Lemma apex acute, awned, 1 -awned. Principal lemma awn 15–26 mm long overall. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 42$ (2 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Middle Asia. Turkmenistan.

TDWG4.

Elymus durus Hort. ex Steud., in syn. *Nom. ed.* 2, 1: 550, 551 (1841).

Regarded by K as a synonym (*E. virginicus*).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Gansu: Minshan, Guangkei Shan, Tebbu land, 4200 m, Oct. 1925, *J.F. Rock 13711* (HT: NY; IT: US).

Recent Synonyms: *Elymus sclerurus* A.Löve, *Feddes Repert.* 95: 448 (1984).

Illustrations (Books): K.F.Best, et al, *Prairie Grasses* (1971) (125 as *Elymus virginicus*), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 576).

Derivation (Clifford & Bostock 2007): L. hard. Lemmas hard or tough.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Basal innovations extravaginal. Culms erect, 60–90 cm long, 1.6–2.2 mm diam., 3–4 -noded. Culm-internodes distally pruinose. Leaf-sheaths 15–21 cm long, smooth, glabrous on surface. Ligule an eciliate membrane or absent, 0.2 mm long. Leaf-blades erect, flat or involute, 5–15(–30) cm long, 2–5.5 mm wide. Leaf-blade surface scaberulous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 5–8 cm long. Rhachis smooth on margins or scaberulous on margins. Spikelet packing broadside to rhachis, 2 -rowed. Rhachis internodes 4–6 mm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–2 mm long.

Fertile Spikelets. Spikelets comprising 3–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 13–16 mm long, breaking up at maturity, disarticulating below each fertile floret. Spikelet callus base truncate. Floret callus pilose.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate or elliptic, 3–4 mm long, 0.66 length of upper glume, coriaceous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute or acuminate. Upper glume lanceolate or elliptic, 5–6 mm long, 0.5 length of adjacent fertile lemma, coriaceous, without keels, 3 -veined. Upper glume lateral veins prominent. Upper glume apex acute or acuminate.

Florets. Fertile lemma lanceolate to oblong, 11 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface scaberulous. Lemma apex acute, awned, 1 -awned. Principal lemma awn 25–30 mm long overall. Palea 10 mm long. Palea keels scabrous. Palea surface puberulous. Palea apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, oblong, 6 mm long, hairy at apex. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central, China North-Central, Qinghai, Tibet, Xinjiang.

TDWG4. Gansu, Sichuan, Yunnan.

Elymus duthiei (Melderis) G. Singh. *Taxon*, 32(4): 639 (1983).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *Agropyron*).

Basionym or Replaced Name: *Agropyron duthiei* Melderis, *Grass. Burma, Ceylon, India & Pakistan* 662, 690 (1960)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Western Himalaya: near Simla, 7000–8000 ft, 23 Aug 1889, *J. F. Duthie 10123* (HT: K).

Illustrations (Books): H.J.Noltie, *The Grasses of Bhutan* (2000) (631, Fig. 29).

Derivation (Clifford & Bostock 2007): in honor of John Firminger Duthie (1845–1922) English botanist who collected in India.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 40–70 cm long, 3–4 -noded. Culm-internodes smooth. Leaf-sheaths glabrous on surface, outer margin hairy. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 0.2–0.4 mm long, truncate. Leaf-blades 10–30 cm long, 1.5–3 mm wide. Leaf-blade surface pilose, sparsely hairy, hairy adaxially. Leaf-blade margins ciliate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 10–18 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 15–20 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 2.4–2.8 mm long, pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 3.5–5 mm long, 0.5–0.6 length of upper glume, coriaceous, much thinner on margins, without keels, 3–5 -veined. Lower glume surface asperulous, rough on veins. Lower glume apex with a unilateral tooth, acute or acuminate, mucous or awned, 1 -awned, awn 0–3 mm long. Upper glume lanceolate, 6–9 mm long, 0.6–0.75 length of adjacent fertile lemma,

coriaceous, with hyaline margins, without keels, 3–5 -veined. Upper glume surface asperulous, rough on veins. Upper glume hairs 2 mm long. Upper glume apex with a unilateral tooth, acute or acuminate, mucicous or awned, 1 -awned, awn 0–3 mm long.

Florets. Fertile lemma oblong, 10–12 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma lateral veins ribbed. Lemma surface puberulous. Lemma apex acute, awned, 1 -awned. Principal lemma awn curved, 20–40 mm long overall. Palea 1 length of lemma. Palea keels ciliolate, adorned above. Palea surface puberulous, hairy on back. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2.8–3.2 mm long, yellow. Stigmas 2. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent. Eastern Himalaya.

TDWG4. Bhutan. Uttah Pradesh. Himachal Pradesh.

Elymus edelbergii (Melderis) O. Anders & D. Podlech. *Mitt. Bot. Staatssamml. Munchen*, 12: 313 (1976).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Afghanistan. **Basionym or Replaced Name:** *Agropyron edelbergii* Melderis, *K. Danske Vid. Selsk., Biol. Skrift.* 14(4): 87 (1965)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Afghanistan, Pashki: Edelberg 1171 (C holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Lennart Edelberg (1915–1982) Danish botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths pubescent. Culms 30–90 cm long, 1–4 -noded. Culm-nodes pubescent. Leaf-sheaths glabrous on surface, outer margin glabrous. Leaf-sheath oral hairs lacking. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 0.2–1 mm long, lacerate. Leaf-blades 6.5–11 cm long, 2.5–4 mm wide. Leaf-blade surface scabrous, rough on both sides, glabrous or pilose, sparsely hairy, hairy adaxially. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight or arcuate, bilateral, 8–12.5 cm long. Rhachis flattened, scaberulous on margins, ciliate on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 8–14 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes collateral, persistent, similar, reaching apex of florets. Lower glume lanceolate, 6–8.5 mm long, 0.8–0.9 length of upper glume, coriaceous, much thinner on margins, without keels, 3–5 -veined. Lower glume lateral veins prominent. Lower glume surface scabrous, rough on veins. Lower glume apex attenuate, awned, 1 -awned, awn 1–3 mm long. Upper glume lanceolate, 7.5–10 mm long, 1 length of adjacent fertile lemma, coriaceous, with hyaline margins, without keels, 3–5 -veined. Upper glume lateral veins prominent. Upper glume surface scabrous, rough on veins. Upper glume apex attenuate, awned, 1 -awned, awn 1–3 mm long.

Florets. Fertile lemma lanceolate or oblong, 7–9.5 mm long, coriaceous, more than 3-veined. Lemma surface pubescent. Lemma apex acute, awned, 1 -awned. Principal lemma awn straight or curved, 10–30 mm long overall. Palea lanceolate, 1 length of lemma. Palea keels ciliolate. Palea surface puberulous, hairy on back. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2.5 mm long, yellow. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 42$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Western Asia. Iran.

(Elymus) Sitanion longifolium J. G. Smith. *US. Dept. Agric., Div. Agrost., Bull.* 18, 18 (1899).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: *C.L. Shear 1213*, 4 Aug 1897, USA: Colorado: San Juan Co. (US-556285).

Recent Synonyms: *Elymus elymoides* subsp. *brevifolius* (J.G. Sm.) M.E. Barkworth, *Phytologia*, 83(4): 305 (1998).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. longus*, long; folium, leaf. With long leaf-blades.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 25–60(–65) cm long. Culm-nodes swollen. Leaf-sheath oral hairs lacking. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades flat or involute, 6–15 cm long, 2–5 mm wide, mid-green or glaucous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 7–15 cm long. Rhachis fragile at the nodes. Spikelet packing broadside to rhachis. Rhachis internodes linear, falling with spikelet above. Spikelets spreading, in pairs. Fertile spikelets sessile, 2 in the cluster, all alike.

Fertile Spikelets. Spikelets comprising 2–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, dorsally compressed, 10–15 mm long, falling entire, deciduous with accessory branch structures, readily shedding fertile florets. Rhachilla internodes definite.

Glumes. Glumes collateral, similar, exceeding apex of florets, gaping. Lower glume subulate, 50–110(–125) mm long, 1 length of upper glume. Lower glume surface scabrous. Upper glume subulate, 50–110(–125) mm long. Upper glume surface scabrous.

Florets. Basal sterile florets absent. Fertile lemma lanceolate, 7–12 mm long, coriaceous, without keel, 3–5 -veined, 0–3 -veined or more than 3-veined. Lemma lateral veins obscure, extending close to apex. Lemma surface smooth or scabrous, glabrous or pubescent. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn curved, spreading, 50–100 mm long overall, limb scabrous. Palea coriaceous. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Ovary with a fleshy appendage below style insertion, pubescent on apex.

Distribution (TDWG). Continent. North America.

Country /Province /State. Northwest USA, Southwestern USA, Mexico. Colorado, Montana, Oregon, Washington, Wyoming. Northwest Mexico.

(Elymus) Sitanion hordeoides Suksdorf. *Werdenda*, i. 4 (1923).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: W.N. Suksdorf 8705, 29 Jun 1916, USA: Washington: Spokane Co. (MO, US-1435211).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. -oides, resembling. Similar to *Hordeum*.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Culms erect, slender, 10–20 cm long. Leaf-sheaths striately veined, puberulous to hirsute. Ligule an eciliate membrane. Leaf-blades flat or involute, 1–4 mm wide, light green or mid-green or glaucous. Leaf-blade surface puberulous to hirsute.

Inflorescence. Inflorescence composed of racemes, exserted or embraced at base by subtending leaf. Racemes 1, single, bilateral, 3–6 cm long. Rhachis fragile at the nodes. Spikelet packing broadside to rhachis. Rhachis internodes linear, falling with spikelet above. Spikelets spreading, in threes. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets sessile, 2 in the cluster.

Sterile Spikelets. Companion sterile spikelets well-developed, containing empty lemmas, 15–50 mm long. Companion sterile spikelet glumes subulate, 15–50 mm long. Companion sterile spikelet lemmas 1, enclosed by glumes, 3 mm long, 1-awned, with 3 mm long awn.

Fertile Spikelets. Spikelets comprising 0–1 basal sterile florets, 1–2 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets, or of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, dorsally compressed, 6–10 mm long, falling entire, deciduous with accessory branch structures, readily shedding fertile florets.

Glumes. Glumes collateral, similar, exceeding apex of florets, gaping. Lower glume subulate, 15–50 mm long, 1 length of upper glume, 1–2 -veined. Upper glume subulate, 15–50 mm long, 1–2 -veined.

Florets. Basal sterile florets absent or 1, barren, without significant palea. Lemma of lower sterile floret subulate, 15–50 mm long. Fertile lemma lanceolate, 6–10 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma midvein scabrous. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn spreading, 15–50 mm long overall. Palea coriaceous. Palea apex emarginate to obtuse, with excurrent keel veins. Apical sterile florets resembling fertile though underdeveloped.

Distribution (TDWG). Continent. North America.

Country /Province /State. Northwest USA, Southwestern USA.

(Elymus) Sitanion hystrix (Nutt.) J. G. Smith. *US. Dept. Agric., Div. Agrost., Bull.* 18, 15 (1899).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Aegilops hystrix* Nutt., *Gen. N. Amer. Pl.* 1: 86 (1818). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Anonymous*, no date, USA: Missouri (IT: US-76251 (fragm.)).

Recent Synonyms: *Elymus elymoides* (Raf.) Swezey, *Cat. Nebraska Pl.* 15 (1891).

Illustrations (Books): K.F.Best, et al, *Prairie Grasses* (1971) (213).

Derivation (Clifford & Bostock 2007): resembling *Hystrix*. Usually a reference to the inflorescence resembling that of *Hystrix*.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms 10–50 cm long. Leaf-sheath oral hairs lacking. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades 5–20 cm long, 1–3 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 2–7(–10) cm long. Rhachis fragile at the nodes. Spikelet packing broadside to rhachis. Rhachis internodes linear, falling with spikelet above. Spikelets spreading, in pairs. Fertile spikelets sessile, 2 in the cluster, heteromorphic (some with sterile lower floret).

Fertile Spikelets. Spikelets comprising 0–1 basal sterile florets, 1–2 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets, or of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, dorsally compressed, 6–10 mm long, falling entire, deciduous with accessory branch structures, readily shedding fertile florets. Floret callus evident.

Glumes. Glumes collateral, similar, exceeding apex of florets, gaping. Lower glume subulate, 20–100 mm long, 1 length of upper glume, 1–2 -veined. Lower glume surface scabrous. Lower glume apex entire or lobed, 2 -fid. Upper glume subulate, 20–100 mm long, 1–2 -veined. Upper glume surface scabrous. Upper glume apex entire or dentate, 2 -fid.

Florets. Basal sterile florets absent or 1, barren, without significant palea. Lemma of lower sterile floret subulate, 20–100 mm long, scabrous. Fertile lemma lanceolate, 6–10 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface smooth or scabrous, glabrous or pubescent. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn curved, spreading, 20–100 mm long overall, limb scabrous. Palea coriaceous. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Ovary with a fleshy appendage below style insertion, pubescent on apex.

$2n = 28$ (1 ref TROPICOS).

Distribution (TDWG). Continent. North America.

Country /Province /State. Western Canada, Northwest USA, North-central USA, Southwestern USA, South-central USA, Mexico. Mexico.

Coahuila, Chihuahua, Durango, Neuvo Leon, Zacatecas.

Elymus (Roegneria) elytrigioides (Yen & Yang) B.R.Lu. *Cathaya* 6:1 (1994).

Accepted by: S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria elytrigioides* C. Yen & J.L. Yang, *Acta Bot. Yunnan.* 6(1): 75–76, pl. 1 (1984)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Xizang: Changdu, Lanchangjiang, 3200 m, in petrosis montium inter Caraganas, 2 Sept. 1982, C. Yen 82004 (HT: SAC, SAU-TRI).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk *-oides*, resembling. Similar to *Elytrigia*.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Tibet.

Elymus embergeri (Maire) M. Ibn Tattou. *Bocconea*, 8: 217 (1998).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006) (as *Agropyron*).

TYPE from Morocco. **Basionym or Replaced Name:** *Agropyron embergeri* Maire, *Bull. Soc. Hist. Nat. Afr. Nord*, 33: 100 (1942). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Morocco, Ayachi Massif: Emberger.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): In honor of Louis Emberger (1897–1969) French botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Rhizomes elongated. Butt sheaths persistent and investing base of culm, with compacted dead sheaths. Culms 40–70 cm long. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 0.5–0.6 mm long, erose, truncate. Leaf-blades 7–14 cm long, 1.5–3 mm wide. Leaf-blade surface ribbed, scabrous, glabrous to pubescent. Leaf-blade apex attenuate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, arcuate, bilateral, 10–11 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, 4–5 mm long. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 9–11 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes scaberulous.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, asymmetrical, 8 mm long, 1 length of upper glume, coriaceous, much thinner on margins, without keels, 5 -veined. Lower glume primary vein ciliate. Lower glume apex acute, awned, 1 -awned, awn 4–6 mm long. Upper glume lanceolate, asymmetrical, 8 mm long, 1 length of adjacent fertile lemma, coriaceous, with scarious margins, without keels, 5 -veined. Upper glume primary vein ciliate. Upper glume apex acute, awned, 1 -awned, awn 4–6 mm long.

Florets. Fertile lemma lanceolate, 8–9 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma midvein ciliate. Lemma lateral veins prominent. Lemma surface scaberulous. Lemma apex acute, awned, 1 -awned. Principal lemma awn 4–5 mm long overall. Palea 1 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 6 mm long, yellow. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, hairy at apex.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northern Africa. Morocco.

Elymus erosiglumis A. Melderis. *Notes Roy. Bot. Gard. Edinburgh*, 42(1): 78 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Turkey. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Turkey: B6 Malatya: Burun, 3500 ft, eroded hills of clac. shale, 19 Jun 1954, *Davis 21888* (HT: BM; IT: E, K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. erodo*, grow into; gluma, husk. Glume apices irregularly toothed.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 70–80 cm long. Culm-internodes distally glabrous. Leaf-sheaths glabrous on surface or pubescent, outer margin hairy. Ligule an eciliate membrane. Leaf-blades flat or involute, 15–40 cm long, 2–4.5 mm wide. Leaf-blade surface pilose, densely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 9.5–22 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, lax. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, compressed slightly, 12–15 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume elliptic, 7–10.5 mm long, 1 length of upper glume, coriaceous, much thinner on margins, without keels, 5 -veined. Lower glume lateral veins ribbed. Lower glume margins ciliolate. Lower glume apex erose, emarginate or truncate. Upper glume elliptic, 7–10.5 mm long, 0.75–1 length of adjacent fertile lemma, coriaceous, with hyaline margins, without keels, 5 -veined. Upper glume lateral veins ribbed. Upper glume margins ciliolate. Upper glume apex erose, emarginate or truncate.

Florets. Fertile lemma lanceolate to oblong, 9–10 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma margins ciliolate. Lemma apex emarginate, muticous or mucronate. Palea 0.8 length of lemma. Palea keels ciliolate, adorned above. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Western Asia. Turkey.

Elymus excelsus Griseb. Ledeb., *Fl. Ross.* 4:331 (1852).

Accepted by: S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from Russia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Russia, Charatzai: Turcz. 1332 (K iso).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 558).

Derivation (Clifford & Bostock 2007): L. tall. Culms tall.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Flower and Fruit. $2n = 42$ (3 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China, Mongolia, Eastern Asia, Russia. China South Central, Inner Mongolia, Manchuria, China North-Central, Qinghai, China Southeast, Xinjiang. Mongolia. Japan, Korea.

TDWG4. Gansu, Hebei, Shaanxi, Shandong, Shanxi. Henan. Sichuan, Yunnan.

Elymus (Roegneria) fedtschenkoi Tsvelev. *Novosti Sist. Vyssh. Rast.*, 10: 21 (1973).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *Agropyron macrolepis*), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Agropyron curvatum* Nevski, *Izv. Bot. Sada Akad. Nauk SSSR* 30: 629 (1932)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Russia, Podgorny: Michalson (LE holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Boris Alexsevitich Fedtschenko (1872–1947) German-born Russian botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 55–120 cm long. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades 12–30 cm long, 3–11 mm wide. Leaf-blade surface scaberulous, rough on both sides.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight or arcuate, bilateral, 7–12 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, crowded. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 16–22 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume elliptic or oblong, 11–17 mm long, 1 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous. Lower glume apex entire or with a unilateral tooth, acuminate. Upper glume elliptic or oblong, 11–17 mm long, 0.9–1.2 length of adjacent fertile lemma, coriaceous, without keels, 5–7 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous. Upper glume apex entire or with a unilateral tooth, acuminate.

Florets. Fertile lemma elliptic or oblong, 12–14 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma surface pubescent. Lemma apex acute, awned, 1 -awned. Principal lemma awn curved, reflexed, 15–40 mm long overall. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3, 2.5–3 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (6 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. Middle Asia, Western Asia, China, Russia. Altay. Kazakhstan, Kirgizistan, Turkmenistan, Uzbekistan. Afghanistan. Xinjiang. **Indian Subcontinent.** Pakistan, West Himalaya.

TDWG4.

Elymus festucoides (Maire) M. Ibn Tattou. *Bocconea*, 8: 217 : (1998).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Morocco. **Basionym or Replaced Name:** *Agropyron festucoides* Maire, *Bull. Soc. Sc. Nat. Maroc*, 8: 142 (1928). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Morocco, Glaoua: Maire.

Recent Synonyms: *Festucopsis festucoides* (Maire) A. Love, *Feddes Repert.*, 95: 442 (1984).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. -oides, resembling. Resembling *Festuca*, especially with respect to the inflorescence.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, culms solitary or caespitose. Rhizomes short. Butt sheaths dark brown, persistent and investing base of culm, with fibrous dead sheaths. Culms erect, 25–60 cm long, 2–3 -noded. Culm-internodes scaberulous. Culm-nodes brown, glabrous. Leaf-sheaths tubular for much of their length, with 1 of their length closed, puberulous. Ligule an eciliate membrane, 0.2–0.5 mm long, truncate. Leaf-blades filiform, convolute, 15–35 cm long, 1 mm wide. Leaf-blade venation with 7 inner ridges. Leaf-blade surface ribbed, scabrous. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 6–15 cm long. Rhachis semiterete, puberulous on surface. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 10–22 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes scaberulous.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 6 mm long, 0.9 length of upper glume, coriaceous, much thinner on margins, without keels, 1 -veined. Lower glume apex acute. Upper glume lanceolate, 6.5–7 mm long, 0.8 length of adjacent fertile lemma, coriaceous, with scarious margins, without keels, 3–5 -veined. Upper glume apex acute.

Florets. Fertile lemma lanceolate, 8 mm long, chartaceous, 5 -veined, more than 3-veined. Lemma midvein scaberulous. Lemma margins clavately ciliolate. Lemma apex acute, muticous. Palea 0.75 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 5.5 mm long, yellow. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, oblong, 6 mm long, hairy at apex. Embryo 0.2 length of caryopsis. Hilum linear, 1 length of caryopsis.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northern Africa. Morocco.

Elymus fibrosus (Schrenk) Tsvelev. *Sched. Herb. Fl. URSS*, 18: 29 (1970).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Triticum fibrosum* Schrenk, *Bull. Acad. Imp. Sci. Saint-Petersbourg* 3: 209 (1845)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Russia, Songaria, Karkaraly Mts.: Schrenk (LE holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. fibra, fibre; -osa, abundance. Leaf-sheaths disintegrating at length into copious fibres.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 40–70 cm long. Culm-nodes glabrous. Leaf-sheaths glabrous on surface or pubescent. Ligule an eciliate membrane. Leaf-blades 3–7 mm wide. Leaf-blade surface smooth or scaberulous, rough adaxially, glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 6–15 cm long. Rhachis flattened, ciliate on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–13 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 5–7 mm long, 1 length of upper glume, coriaceous, without keels, 3 -veined. Lower glume apex acuminate. Upper glume lanceolate, 5–7 mm long, 0.66 length of adjacent fertile lemma, coriaceous, without keels, 3 -veined. Upper glume apex acuminate.

Florets. Fertile lemma oblong, 9–11 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma apex acuminate, muticous. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (2 refs TROPICOS).

Distribution (TDWG). Continent. Europe, Temperate Asia.

Region. Northern Europe, Eastern Europe.

Country /Province /State. : Finland. Central European Russia, East European Russia, North European Russia, South European Russia, Northwest European Russia. Siberia. Irkutsk, Krasnoyarsk, Tuva.

TDWG4.

Elymus flaccidifolius (Boiss. & Heldr.) A. Melderis. *Bot. J. Linn. Soc.*, 76(4): 377 (1978).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, T.G.Tutin et al, *Flora Europaea* 5 (1980).

TYPE from Greece. **Basionym or Replaced Name:** *Agropyron scirpeum* var. *flaccidifolium* Boiss. & Heldr., *Diagn. Pl. Orient.*, ser. 2, 3(4): 142 (1859)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Greece, Phalera: Heldreich 501 (G hol, BM, K).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 35–65 cm long. Leaf-sheaths pilose. Ligule an eciliate membrane. Leaf-blades involute, 1–2 mm wide. Leaf-blade surface pubescent, densely hairy, hairy on both sides. Leaf-blade margins ciliate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 7–15 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes oblong. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 6–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, compressed strongly, 10–11 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume oblong, 4–6 mm long, 1 length of upper glume, coriaceous, without keels, 5 -veined. Lower glume lateral veins ribbed. Lower glume apex acute. Upper glume oblong, 4–6 mm long, 0.66–1 length of adjacent fertile lemma, coriaceous, without keels, 5 -veined. Upper glume lateral veins ribbed. Upper glume apex acute.

Florets. Fertile lemma lanceolate or oblong, 6 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma apex emarginate, mucronate. Palea 1 length of lemma. Palea keels ciliate, adorned above. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3, 4 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Europe, Temperate Asia.

Region. Southeastern Europe.

Country /Province /State. : Albania, Greece, Crete, Sicily, Turkey Europe. **Western Asia.** Turkey.

Elymus formosanus (Honda) A. Love. *Feddes Repert.* 95: 449 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), T.Koyama, *Grasses of Japan and its neighboring regions* (1987) (as *Agropyron*).

Basionym or Replaced Name: *Agropyron formosanum* Honda, *Bot. Mag. (Tokyo)* 41(485): 385 (1927)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *E. Matsuda* 13 & 30, 1919, Formosa: in Noko-zan Mount (TI; IT: TI).

Illustrations (Books): C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (356 as *Agropyron*), C-C Hsu, *Taiwan Grasses* (1975) (457, Pl. 1395 as *Agropyron formosanum*), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 570 as *Elymus formosanus* var. *formosanus*).

Derivation (Clifford & Bostock 2007): L. -ana, indicating location. For Formosa, now Taiwan.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Butt sheaths glabrous or pubescent. Culms erect, 30–80 cm long, 1–1.7 mm diam., 3–4 -noded. Leaves basal and cauline. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 0.5 mm long, truncate. Leaf-blades 6–20 cm long, 3–6 mm wide. Leaf-blade surface smooth or scaberulous, glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 7–18 cm long, 5 mm wide. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear, 7–15 mm long. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 15–20 mm long, 4–5 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1.4–1.6 mm long, scaberulous, sparsely hairy. Floret callus pilose. Floret callus hairs 2–3 mm long, 0.25 length of lemma.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 5–7 mm long, 0.75 length of upper glume, coriaceous, much thinner on margins, without keels, 5–7 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acute. Upper glume lanceolate, 7–9 mm long, coriaceous, with membranous margins, without keels, 5–7 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex acute.

Florets. Fertile lemma oblong, 8–11 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma lateral veins ribbed. Lemma surface scaberulous, glabrous or puberulous. Lemma margins ciliate. Lemma apex acute, awned, 1 -awned. Principal lemma awn curved, 20–35 mm long overall. Palea 1 length of lemma. Palea keels winged, narrowly winged, ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China, Eastern Asia. Taiwan.

Elymus gayanus E. Desv. C. Gay, *Fl. Chil.* 6: 467 (1853).

Accepted by: U. Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Chile. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Gay (3rd envoi) 294*, Chile: Prov. Valdivia (P-DESV-45; IT: US-865939 (fragm. ex P-Desv-45 & photo)).

Illustrations (Books): M.N. Correa, *Flora Patagonica* Parte III, Gramineae (1978) (449, Fig. 299).

Derivation (Clifford & Bostock 2007): L. -ana, indicating connection. In honor of Claude Gay (1800–1873) French botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes absent or short. Culms 50–200 cm long, 5–8 -noded. Leaf-sheaths glabrous on surface or pubescent. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 1–3 mm long, truncate. Leaf-blades 3–12 mm wide. Leaf-blade surface scabrous, rough adaxially, glabrous or pubescent, hairy adaxially or on both sides.

Inflorescence. Inflorescence composed of racemes. Peduncle smooth or retrorsely scabrous above. Racemes 1, single, bilateral, 10–15 cm long. Rhachis scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets in pairs or in threes. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–18 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes scaberulous.

Glumes. Glumes persistent, similar, with lower wider than upper, shorter than spikelet. Lower glume lanceolate, 6.5–9 mm long, 1 length of upper glume, coriaceous, without keels, 4–5 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous, rough on veins. Lower glume apex acuminate, muticous or awned, 1 -awned, awn 1–5 mm long. Upper glume lanceolate, 6.5–9 mm long, 0.75–1 length of adjacent fertile lemma, coriaceous, without keels, 3 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous, rough on veins. Upper glume apex acuminate, muticous or awned, 1 -awned, awn 1–5 mm long.

Florets. Fertile lemma lanceolate, 6.5–12 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma surface scabrous, rough above. Lemma apex dentate, 2 -fid, acute, awned, 1 -awned. Principal lemma awn from a sinus, 11–15 mm long overall. Palea 1 length of lemma. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2–3.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (1 ref TROPICOS).

Distribution (TDWG). Continent. South America.

Country /Province /State. Southern South America. Argentina South.

TDWG4. Chubut, Río Negro. Rest of Chile- Biobío, La Auracania, Maule, O'Higgins, Santado, Valpariso, Chiloe, Aisen, Magellanes.

Elymus gentryi (Melderis) A. Melderis. *Notes Roy. Bot. Gard. Edinburgh*, 42(1): 82 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

Basionym or Replaced Name: *Agropyron gentryi* Melderis, *Fl. Iranica* 70: 165 (1970)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *H.S. Gentry 15617*, Jul 1967, Grown at USDA Plant Protection Station Pullman, Washington from material collected in Iran, Kuhrang, Chaharmahal, 8500 ft, 28 Aug 1955 (K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Howard Scott Gentry (1903-) who collected in Iran.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 70–110 cm long. Culm-internodes distally glabrous. Leaf-sheaths outer margin glabrous. Ligule an eciliate membrane. Leaf-blades 5–20 cm long, 5–6 mm wide. Leaf-blade surface scabrous, rough adaxially. Leaf-blade margins cartilaginous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 12–16 cm long. Rhachis flattened, scabrous on surface, pubescent on margins. Spikelet packing broadside to rhachis. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 12–14 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume oblong, 6–8.5 mm long, 1 length of upper glume, coriaceous, much thinner on margins, 1-keeled, 3–5 -veined. Lower glume primary vein smooth or scaberulous. Lower glume lateral veins ribbed. Lower glume apex truncate or obtuse, mucronate. Upper glume oblong, 6–8.5 mm long, 0.8–0.9 length of adjacent fertile lemma, coriaceous, with hyaline margins, 1-keeled, 3–5 -veined. Upper glume primary vein smooth or scaberulous. Upper glume lateral veins ribbed. Upper glume apex truncate or obtuse, mucronate.

Florets. Fertile lemma oblong, 7–8 mm long, coriaceous, keeled, lightly keeled, keeled above, 5 -veined, more than 3-veined. Lemma apex obtuse, mucronate, 3 -awned (mucros). Palea 1 length of lemma. Palea keels ciliate, adorned above. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3, 3.5–4 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Western Asia. Iran.

Elymus (Roegneria) glaberrimus (Keng & S.L. Chen) S.L. Chen. *Bull. Nanjing Bot. Gard. Mem. Sun Yat Sen*, 1987: 9 (1988).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria glaberrima* Keng & S.L. Chen, *J. Nanjing Univ., Nat. Sci. Ed.* 1: 72–73, pl. 5 (1963)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Xinjiang: Altay, rocky slopes, ca. 1400 m, 27 Aug. 1956, *R.C. Ching 2548* (HT: PE).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 572 as *Elymus glaberrimus* var. *glaberrimus*).

Derivation (Clifford & Bostock 2007): L. most free of hairs. Plant glabrous.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Roots woolly. Culms erect, 80 cm long, 1–2 mm diam., 3 -noded, with 0.25–0.33 of their length below uppermost node. Culm-nodes glabrous. Leaf-sheaths smooth, glabrous on surface. Ligule an eciliate membrane, 0.5 mm long, scarious. Leaf-blades flat or involute, 8–15 cm long, 3–4 mm wide, stiff, glaucous. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight, bilateral, 8–12 cm long, bearing 6–11 fertile spikelets on each. Rhachis flattened, smooth on surface, glabrous on surface, scabrous on margins. Spikelet packing broadside to rhachis, regular, 2 -rowed. Rhachis internodes 7–17 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 13–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1.5–2 mm long, glabrous. Floret callus glabrous.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate or oblong, 4–6 mm long, coriaceous, much thinner on margins, without keels, 5 -veined. Lower glume surface

glabrous. Lower glume apex entire or with a unilateral tooth, acute, muticous. Upper glume lanceolate or oblong, 5.5–7.5 mm long, coriaceous, with membranous margins, without keels, 3–5 -veined. Upper glume surface glabrous. Upper glume apex entire or with a unilateral tooth, acute, muticous.

Florets. Fertile lemma lanceolate or oblong, 9 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma apex attenuate, awned, 1 -awned. Principal lemma awn curved, 10–20 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels ciliolate. Palea surface smooth or scaberulous, glabrous. Palea apex emarginate or truncate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 5 mm long, yellow. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, hairy at apex, apex unappendaged. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Qinghai, Xinjiang.

Elymus glabriflorus (Vasey ex Dewey) Scribn. & Ball. *U.S. Dept. Agric. Bull. Agron.* 24: 49 (1901).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Elymus canadensis* var. *glabriflorus* Vasey ex L.H. Dewey, *Contr. U.S. Natl. Herb.* 2(3): 550 (1894)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: A.B. Langlois 81, Jun 1885, USA: Louisiana: in low, miry, even saltish places at Pointe-a-la-Hache (US-81645). LT designated (as type) by Lamson-Scribner & Ball, 24: 50 (1901), but without explicitly citing a specific collection.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (297).

Derivation (Clifford & Bostock 2007): L. *glaber*, smooth; *flos*, flower. Lemmas glabrous.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes absent. Culms decumbent, 80–150 cm long. Leaf-sheath oral hairs lacking. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 0.5–1 mm long, truncate. Leaf-blades flat or conduplicate, 15–40 cm long, 4–12 mm wide. Leaf-blade surface glabrous or pubescent.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, deflexed or drooping, bilateral, 8–20 cm long. Rhachis flattened, pubescent on surface (sparsely). Spikelet packing broadside to rhachis, irregular. Rhachis internodes oblong. Spikelets in pairs or clustered at each node. Fertile spikelets sessile, 2–4 in the cluster.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 12–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Spikelet callus glabrous, base truncate.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume linear, 5–7 mm long, 1 length of upper glume, coriaceous, without keels, 3 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous. Lower glume apex acuminate, awned, 1 -awned, awn 5–7 mm long. Upper glume linear, 5–7 mm long, 0.6–0.7 length of adjacent fertile lemma, coriaceous, without keels, 3 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous. Upper glume apex acuminate, awned, 1 -awned, awn 5–7 mm long.

Florets. Fertile lemma lanceolate, 8–10 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface smooth, glabrous. Lemma apex acute, awned, 1 -awned. Principal lemma awn flexuous, 20–30 mm long overall. Palea 2 -veined. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2, protandrous, laterally exerted. Ovary pubescent on apex. Hilum linear.

Distribution (TDWG). Continent. North America.

Country /Province /State. North-central USA, Northeast USA, Southwestern USA, South-central USA, Southeastern USA. Kansas, Oklahoma. Maine, Ohio, Vermont. Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, District of Columbia.

Elymus glaucissimus (M. Pop.) Tsvelev. *Novosti Sist. Vyssh. Rast.*, 9: 61 (1972).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Agropyron glaucissimum* Popov, *Bull. Soc. Imp. Naturalistes Moscou* 57: 84 (1938)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Russia, Alatau Tschijmunak: Popov (MW holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. glaucus*, bluish-green; -issimum, most. Plant whole or in part quite glaucous.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Stolons present. Culms geniculately ascending, 50–100 cm long. Culm-internodes distally glabrous. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane. Leaf-blades convolute, 4–7 mm wide, stiff, glaucous. Leaf-blade surface smooth, glabrous. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 10–17 cm long. Rhachis scabrous on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 12–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume oblong, 5 mm long, 0.75 length of upper glume, coriaceous, without keels, 3 -veined. Lower glume lateral veins prominent. Lower glume surface asperulous, rough on veins. Lower glume apex acute, awned, 1 -awned, awn 2–3 mm long. Upper glume oblong, 7 mm long, 0.66 length of adjacent fertile lemma, coriaceous, without keels, 3 -veined. Upper glume lateral veins prominent. Upper glume surface asperulous, rough on veins. Upper glume apex acute, awned, 1 -awned, awn 3–4 mm long.

Florets. Fertile lemma oblong, 10–12 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scaberulous. Lemma apex dentate, 2 -fid, acute, awned, 1 -awned. Principal lemma awn from a sinus, recurved at base of limb, 17–30 mm long overall. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 42$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Middle Asia. Kirgizistan.

TDWG4.

Elymus glaucus Buckl. *Proc. Acad. Sc. Philad.* 1862, 99 (1863).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *Nuttall s.n.*, USA: Columbia River (PH).

Recent Synonyms: *Elymus mackenzii* Bush, *Am. Midl. Nat.* 10: 53 (1926).

Elymus parishii Davy & Merrill,.

Illustrations (Books): K.F.Best, et al, *Prairie Grasses* (1971) (119), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (309, as subspecies *glaucus*, *mackenziei* & *virescens*).

Derivation (Clifford & Bostock 2007): *L. glaucus*, bluish-green.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Culms erect or geniculately ascending, 50–100 cm long. Ligule an eciliate membrane. Leaf-blades 4–10 mm wide, glaucous. Leaf-blade surface scabrous, rough on both sides.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 8–20 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets solitary or in pairs. Fertile spikelets sessile, 1–2 in the cluster.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–20 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, 8–15 mm long, 1 length of upper glume, coriaceous, without keels, 3–7 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acute, muticous or awned, 1 -awned, awn 0–6 mm long. Upper glume lanceolate, 8–15

mm long, 0.75–0.8 length of adjacent fertile lemma, coriaceous, without keels, 3–7 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex acute, mucicous or awned, 1 -awned, awn 0–6 mm long.

Florets. Fertile lemma elliptic to oblong, 6–12 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma surface scabrous. Lemma apex acute, awned, 1 -awned. Principal lemma awn 10–30 mm long overall. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, hairy at apex.

$2n = 28$ (3 refs TROPICOS).

Distribution (TDWG). Continent. North America.

Country /Province /State. Subarctic America, Western Canada, Northwest USA, North-central USA, Southwestern USA, South-central USA, Southeastern USA, Mexico. Yukon. Alberta, British Columbia, Manitoba, Saskatchewan. Colorado, Idaho, Montana, Oregon, Washington, Wyoming. North Dakota, Oklahoma, South Dakota. Arizona, California, Nevada, Utah. New Mexico. Arkansas. Northwest Mexico.

Baja California.

Elymus (Roegneria) gmelinii (Ledeb.) Tselev. *Akad. Nauk SSSR Bot. Inst. Komarova, Rast. Tsentral. Azii, Fasc.* 4, 21 (1968).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.Tselev, *Grasses of the Soviet Union* (1983), T.Koyama, *Grasses of Japan and its neighboring regions* (1987) (as *Agropyron*).

TYPE from Russia, Altai. **Basionym or Replaced Name:** *Triticum caninum* var. *gmelinii* Ledeb., *Fl. Altaic.* 1: 118 (1829)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Ledebour*, 1827, Altai (LE).

Illustrations (Books): T.Koyama, *Grasses of Japan and its neighbouring regions* (1987) (68, Fig 20 as *Agropyron*), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Figs. 566/568 as *Elymus gmelinii* var. *gmelinii* & *Elymus gmelinii* var. *macrathetus*).

Derivation (Clifford & Bostock 2007): in honor of Karl Christian Gmelin (1762–1837) German physician and botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Culms erect or geniculately ascending, 60–120 cm long, 1.5–2 mm diam., 3–4 -noded. Leaves basal and cauline. Leaf-sheaths glabrous on surface or pubescent. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 0.2 mm long. Leaf-blades 15–25 cm long, 3–8 mm wide. Leaf-blade surface glabrous or puberulous, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, bilateral, 10–15 cm long, 8–15 mm wide, bearing 7–15 fertile spikelets on each. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, 10–20 mm long. Rhachis internode tip flat. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15–20 mm long, 5–7 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1.5–2 mm long, pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 7–9 mm long, 0.8 length of upper glume, coriaceous, without keels, 9 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acute. Upper glume lanceolate, 8–11 mm long, coriaceous, without keels, 9 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex acute.

Florets. Fertile lemma lanceolate, 9–12 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scabrous, glabrous or pilose. Lemma apex acute, awned, 1 -awned. Principal lemma awn curved, 25–40 mm long overall. Palea 1 length of lemma. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2.5–3 mm long. Stigmas 2. Caryopsis with adherent pericarp.

$2n = 28$ (6refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Siberia, Russian far east, Middle Asia, China, Mongolia, Eastern Asia, Russia. Altay, Buryatiya, Chita, Irkutsk, Tuva. Amur, Kamchatka, Khabarovsk, Kuril Is, Magadan, Primorye, Sakhalin. Kazakhstan, Kirgizistan, Turkmenistan, Uzbekistan. China South Central, Inner Mongolia, Manchuria, China North-Central, Qinghai, China Southeast, Xinjiang. Mongolia. Japan, Korea. Japan Honshu.

TDWG4. Gansu, Hebei, Shaanxi, Shanxi. Henan. Yunnan.

Elymus grandiglumis (Keng & Chen) A. Love. *Feddes Repert.* 95: 455 (1984).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, U. Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria grandiglumis* Keng ex Keng & S.L. Chen, *Acta Univ. Nankin. Sci. Nat.* 1963(1): 82 (1963)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Qinghai: Henan, *NW Agric. Coll. s.n.* (HT: NAS).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. grandis*, large; gluma, husk. Glumes and/or lemmas large.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Rhizomes short. Culms 40–100 cm long. Leaf-sheaths smooth, glabrous on surface. Ligule an eciliate membrane, 0.6 mm long. Leaf-blades flat or conduplicate, 1.5–3 mm wide. Leaf-blade surface scabrous, rough adaxially, glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 4–9 cm long. Rhachis ciliate on margins. Spikelet packing broadside to rhachis, lax, 2 -rowed. Rhachis internodes 10–15 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 9–14 mm long, breaking up at maturity, disarticulating below each fertile floret. Spikelet callus base truncate.

Glumes. Glumes similar, subequal in width, shorter than spikelet. Lower glume lanceolate, 5–6 mm long, 1 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume apex acute, muticous or mucronate. Upper glume lanceolate, 5–6 mm long, 0.66–0.75 length of adjacent fertile lemma, coriaceous, without keels, 3–5 -veined. Upper glume apex acute, muticous or mucronate.

Florets. Fertile lemma lanceolate to oblong, 7–9 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface hirsute. Lemma apex acute, awned, 1 -awned. Principal lemma awn 1–5 mm long overall. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 1.5–2.2 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp. Hilum linear.

$2n = 42$ (Jensen, K. B. & I. W. Bickford, *Genome* 35: 676–680).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Qinghai.

Elymus (Roegneria) grandis (Keng ex Y.L. Keng & S.L. Chen) A. Love. *Feddes Repert.* 95: 458 (1984).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria grandis* Keng ex Keng & S.L. Chen, *Acta Univ. Nankin. Sci. Nat.* 1963(1): 45 (1963)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Shaanxi: Exian, mountain slopes, 7 July 1951, *B.C. Kuo* 149 (HT: PE).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 582 & Fig. 585).

Derivation (Clifford & Bostock 2007): *L. tall*. Plants robust and vigorous, often with tall culms.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, culms solitary or caespitose. Rhizomes short. Culms erect, 80–100 cm long, 3.5 mm diam., 5–6 -noded. Culm-internodes smooth, distally glabrous. Leaf-sheaths subequal to internodes or longer than adjacent culm internode, glabrous on surface. Ligule an eciliate membrane, 1–1.5 mm long, entire or erose, truncate. Leaf-blades 20–30 cm long, 5–16 mm wide, indurate, glaucous. Leaf-blade surface smooth or scaberulous, rough abaxially. Leaf-blade apex attenuate, simple or soon splitting (becoming fibrous).

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, bilateral, 20–25 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, lax, regular, 2 -rowed. Rhachis internodes 15–20 mm long. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 6–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 20–30 mm long, 3–5 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1.5–2 mm long, pubescent. Floret callus pubescent. Floret callus hairs 1 mm long.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate or oblong, 10–15 mm long, coriaceous, of similar consistency on margins or much thinner on margins, without

keels, 5–7 -veined. Lower glume lateral veins prominent. Lower glume surface smooth or asperulous. Lower glume apex acute, mucicous. Upper glume lanceolate or oblong, 10–15 mm long, coriaceous, with undifferentiated margins or membranous margins, without keels, 5–7 -veined. Upper glume lateral veins prominent. Upper glume surface smooth or asperulous. Upper glume apex acute, mucicous.

Florets. Fertile lemma lanceolate, 15 mm long, 2 mm wide, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma apex acute, mucronate. Palea oblong, 0.66–0.75 length of lemma, 2 -veined. Palea keels smooth. Palea apex truncate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, oblong, 8 mm long, dark brown, hairy at apex, apex unappendaged. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China North-Central, China Southeast.

TDWG4. Shaanxi. Henan.

Elymus (Lophopyrum) haifensis (Meld.) FORSAN. (1999).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Israel. **Basionym or Replaced Name:** *Elytrigia elongata* var. *haifensis* Meld., *Ark. Bot. ser.2*, 2:304 (1952). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Israel, Haifa: Coll?.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From Haifa, Israel.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 20–45 cm long. Culm-internodes glaucous, smooth, distally glabrous. Leaf-sheaths striately veined, smooth, glabrous on surface. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades involute, 12–25 cm long, 2–3 mm wide, stiff. Leaf-blade surface ribbed, pubescent, densely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 17–30 cm long, bearing 5–11 fertile spikelets on each. Rhachis flattened, smooth on margins. Spikelet packing broadside to rhachis. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 7–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets rhomboid, laterally compressed, compressed strongly, 15–20 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume oblong, 5–8 mm long, 1 length of upper glume, coriaceous, without keels, 5–7 -veined. Lower glume lateral veins ribbed. Lower glume apex truncate or obtuse. Upper glume oblong, 5–8 mm long, 0.7–0.8 length of adjacent fertile lemma, coriaceous, without keels, 5–7 -veined. Upper glume lateral veins ribbed. Upper glume apex truncate or obtuse.

Florets. Fertile lemma oblong, 7–10 mm long, coriaceous, keeled, 5 -veined, more than 3-veined. Lemma apex emarginate or truncate or obtuse, mucicous. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Western Asia. Cyprus, Palestine, Israel & Jordan.

Elymus (Roegneria) himalayanus (Nevski) Tsvelev. *Novosti Sist. Vyssh. Rast.*, 9: 61 (1972).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *Agropyron*), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Himalaya. **Basionym or Replaced Name:** *Roegneria himalayana* Nevski, *Trudy Sredne-Aziatsk. Gosud. Univ., Ser. 8b, Bot.* 17: 68 (1934)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT?: *J.F.Duttie 140*, 19/7/83, N.W.Himalaya: Jihri-Garhwal: Rhudughera (LE).

Illustrations (Books): H.J.Noltie, *The Grasses of Bhutan* (2000) (631, Fig. 29).

Derivation (Clifford & Bostock 2007): L. -ana, indicating location. From the Himalayas.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 40–85 cm long. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades 10–20 cm long, 3–6 mm wide. Leaf-blade surface pilose, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 10–17 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, lax. Spikelets solitary. Fertile spikelets sessile or pedicelled. Pedicels absent or present, 0–2 mm long.

Fertile Spikelets. Spikelets comprising 4–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 20–25 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume elliptic or oblong, 4.5–8 mm long, 1 length of upper glume, coriaceous, without keels, 3 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous. Lower glume apex acute, awned, 1 -awned, awn (2.5–)4–10 mm long. Upper glume elliptic or oblong, 11–12.5 mm long, 0.5–0.7 length of adjacent fertile lemma, coriaceous, without keels, 3 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous. Upper glume apex acute, awned, 1 -awned, awn (2.5–)4–10 mm long.

Florets. Fertile lemma elliptic or oblong, 11–12.5 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma surface scabrous, glabrous or villous. Lemma margins eciliate or ciliate. Lemma apex acute, awned, 1 -awned. Principal lemma awn curved, reflexed, 30–50 mm long overall. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3, 2–2.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (1 refs TROPICOS), or 42 (2 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. Middle Asia. Kirgizistan. **Indian Subcontinent.** Eastern Himalaya, Pakistan, West Himalaya.

TDWG4. Sikkim.

Elymus hirsutus J. & C. Presl. *Rel. Haenk.* 1: 264 (1830).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: USA, Nootka: Haenke.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (311).

Derivation (Clifford & Bostock 2007): L. hairy. Plant hairy in respect to all or some parts.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms geniculately ascending, 60–120 cm long. Culm-internodes distally glabrous or pubescent. Leaf-sheath auricles absent or falcate. Ligule an eciliate membrane, 0.5–1 mm long, erose. Leaf-blades 4–10 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight or arcuate, bilateral, 6–10 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, 5–7 mm long, 1 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume apex acute, awned, 1 -awned, awn 5–7 mm long. Upper glume lanceolate, 5–7 mm long, coriaceous, without keels, 3–5 -veined. Upper glume apex acute, awned, 1 -awned, awn 5–7 mm long.

Florets. Fertile lemma lanceolate to oblong, 7–10 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma lateral veins prominent. Lemma surface glabrous or pubescent, hairy above. Lemma margins ciliate. Lemma apex acute, awned, 1 -awned. Principal lemma awn straight or curved, 15–20 mm long overall. Palea 1 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2–2.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (1 refs TROPICOS).

Distribution (TDWG). Continent. North America.

Country /Province /State. Subarctic America, Western Canada, Northwest USA. Alaska. British Columbia. Oregon, Washington.

Elymus hitchcockii G. Davidse, L. Brako & J.L. Zarucchi, *Cat. Flow. Pl. Gin Monogr. Syst. Bot. Missouri Bot. Gard.*, 45: 1258 (1993).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Peru. **Basionym or Replaced Name:** *Agropyron breviaristatum* Hitchcock, *Contrib. U. S. Nat. Herb.* 24: 353 (1927). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Peru, Cuzco: Hitchcock 22462 (US holo, F, K, SI).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Rhizomes short. Culms 100–200 cm long, 4–6 -noded. Leaf-sheaths glabrous on surface. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 1–1.5 mm long, truncate. Leaf-blades flat or convolute, 20–30 cm long, 2–4 mm wide. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 10–25 cm long. Rhachis scabrous on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear, 6–13 mm long. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 6–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 12–24 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes scaberulous.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, 8–12 mm long, 0.9 length of upper glume, coriaceous, without keels, 5–8 -veined. Lower glume surface scabrous, rough above. Lower glume apex acute, mucicous or mucronate or awned, 1 -awned, awn 0.2–1.5 mm long. Upper glume lanceolate, symmetrical or asymmetrical, 9–14 mm long, 0.9 length of adjacent fertile lemma, coriaceous, without keels, 5–8 -veined. Upper glume surface scabrous, rough above. Upper glume apex entire or with a unilateral tooth, acute, mucicous or mucronate or awned, 1 -awned, awn 0.2–1.5 mm long.

Florets. Fertile lemma lanceolate, 10–15 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma apex acute, mucronate or awned, 1 -awned. Principal lemma awn 0.2–5 mm long overall. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, 6 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America. Peru.

Elymus hoffmannii K. B. Jensen & Asay. *Int. J. Pl. Sci.* 157: 758 (1996).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from U.S. cult. from seed collected in Turkey. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Plant grown from seed, U.S. Plant Introduction (W613943) as part of the U.S. Collection of the Perennial Triticeae Grasses at the Evans Research Farm. Seed material for the description was obtained from the F3 breeding line from K.H. Asay in 1994. Original seed was obtained from J.A. Hoffman and R.J. Metzger in 1979 that was collected as MH-114–1085, identified as *Elytrigia repens*, which was collected from the edge of a wheat field 56 km northwest of Eleskirt, Erzurum Province, Turkey., (HT: UT; IT: K, LE, TAES, US)

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (337).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Flower and Fruit. $2n = 42$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Western Asia. Turkey.

Elymus (Roegneria) hondae (Kitagawa) S.L. Chen. *Bull. Nanjing Bot. Gard. Mem. Sun Yat Sen*, 1987: 9 (1988).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

Basionym or Replaced Name: *Roegneria hondae* M. Kitagawa, *Rep. Inst. Sci. Res. Manchoukuo*, 6(4): 118 (1942).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 590).

Derivation (Clifford & Bostock 2007): In honor of Masaji Honda (1897–1984) Japanese botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Culms erect, 70–90 cm long, 3–4-noded. Culm-nodes glabrous or pubescent. Leaf-sheaths glabrous on surface to hirsute, with reflexed hairs. Ligule an eciliate membrane, 0.5 mm long. Leaf-blades flat or involute, 15–20 cm long, 3–7 mm wide. Leaf-blade surface glabrous or pubescent, densely hairy. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, bilateral, 13–20 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, regular, 2-rowed. Rhachis internodes 10–15(–35) mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 12–17 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1.5–2 mm long, pubescent. Floret callus pubescent. Floret callus hairs 0.5–1 mm long.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate or oblong, 8–10 mm long, coriaceous, without keels, 3–7-veined. Lower glume lateral veins prominent. Lower glume surface scabrous, rough on veins. Lower glume apex acute or acuminate, mucicous or mucronate. Upper glume lanceolate or oblong, 9–11 mm long, coriaceous, without keels, 3–7-veined. Upper glume lateral veins prominent. Upper glume surface scabrous, rough on veins. Upper glume apex acute or acuminate, mucicous or mucronate.

Florets. Fertile lemma lanceolate, 10 mm long, coriaceous, without keel, 5-veined, more than 3-veined. Lemma surface smooth or scaberulous, rough on veins, glabrous. Lemma apex awned, 1-awned. Principal lemma awn straight, 15–20 mm long overall. Palea 0.9 length of lemma, 2-veined. Palea surface pubescent, hairy on back. Palea apex truncate or obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, hairy at apex, apex unappendaged. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Inner Mongolia, Manchuria, China North-Central, China Southeast.

TDWG4. Hebei, Shaanxi. Henan.

Elymus (Roegneria) hongyuanensis (L.B. Cai) S.L. Chen & G.H. Zhu. *Novon* 12(3): 426 (2002).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria hongyuanensis* L.B. Cai, *Acta Phytotax. Sin.* 35(2): 157–158, pl. 1, f. 1–9 (1997). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Sichuan: Hongyuan, in meadow, 3400 m, 23 Sept. 1979, W.Z. Xie 005 (HT: HNWP).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 594).

Derivation (Clifford & Bostock 2007): *L. -ensis*, denoting origin. From Hongyuan, Sichuan Province, China.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms erect or geniculately ascending, 50–70 cm long, 1.3–2.5 mm diam., 2-noded. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 0.3 mm long, truncate. Leaf-blades flat or involute, 7–10 cm long, 1.5–3 mm wide. Leaf-blade surface hirsute, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 7–10 cm long. Rhachis flattened, with scattered hairs, scabrous on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes 5–12 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–12 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar. Lower glume lanceolate, 3–4 mm long, coriaceous, without keels, 3-veined. Lower glume surface smooth or scabrous, rough on veins. Lower glume apex acute. Upper glume lanceolate, 4–6 mm long, coriaceous, without keels, 3-veined. Upper glume surface smooth or scabrous, rough on veins. Upper glume apex acute.

Florets. Fertile lemma lanceolate, 5–9 mm long, coriaceous, 5-veined, more than 3-veined. Lemma surface pubescent. Lemma apex acuminate, awned, 1-awned. Principal lemma awn 6–11 mm long overall. Palea 1 length of lemma, 2-veined. Palea keels ciliate. Palea surface scaberulous. Palea apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 2 mm long, black. Caryopsis with adherent pericarp, oblong, 4–5 mm long, hairy at apex.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central.

TDWG4. Sichuan.

Elymus humidorum (Ohwi & Sakamoto) A. Love. *Feddes Repert.* 95: 457 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, T.Koyama, *Grasses of Japan and its neighboring regions* (1987) (as *Agropyron*).

TYPE from Japan. **Basionym or Replaced Name:** *Agropyron humidorum* Ohwi & Sakamoto, *Journ. Jap. Bot.* 39: 109 (1964). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Japan, oshigaya: Ohwi TNS 5 (TNS holo).

Illustrations (Books): T.Koyama, *Grasses of Japan and its neighbouring regions* (1987) (64, Fig 18 as *Agropyron*).

Derivation (Clifford & Bostock 2007): *L. humidus*, moist. Growing in moist places.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Rhizomes short. Culms geniculately ascending, 40–90 cm long, 2–3 mm diam., 4–7 -noded. Leaves basal and cauline. Leaf-sheaths outer margin glabrous. Ligule an eciliate membrane, 0.5–0.7 mm long, truncate. Leaf-blades 10–25 cm long, 3–8 mm wide, stiff. Leaf-blade surface scabrous, rough adaxially or on both sides.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 8–20 cm long, 7–10 mm wide. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear, 7–15 mm long. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 13–22 mm long, 5–6 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1–2 mm long, pubescent. Floret callus pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 5.5–7 mm long, 0.75–0.8 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume apex acute. Upper glume lanceolate, 7–8.5 mm long, coriaceous, without keels, 5–7 -veined. Upper glume apex acute.

Florets. Fertile lemma oblong, 8–11 mm long, coriaceous, much thinner on margins, 5 -veined, more than 3-veined. Lemma lateral veins ribbed. Lemma margins pubescent, hairy below. Lemma apex acute, awned, 1 -awned. Principal lemma awn 12–30 mm long overall. Palea oblong, 1 length of lemma. Palea keels winged, narrowly winged, ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, oblong, 5–6 mm long, hairy at apex.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Eastern Asia. Japan. Japan Honshu, or Shikoku, or Kyushu.

Elymus (Roegneria) humilis (Keng & S.L. Chen) S.L. Chen. *Bull. Nanjing Bot. Gard. Mem. Sun Yat Sen*, 1987: 9 (1988).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria humilis* Keng & S.L. Chen, *Acta Univ. Nankin. Sci. Nat.* 3(1): 40, f. 3 (1963)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Qinghai: Sanjiaocheng, roadsides, 24 July 1957, *P.C. Keng et al. 180* (HT: NJU).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. low* growing. Short-statured in comparison with related species and often prostrate.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Butt sheaths persistent and investing base of culm, with fibrous dead sheaths. Culms geniculately ascending, 20–25 cm long, 2 -noded, with 0.15–0.2 of their length below uppermost node. Culm-internodes smooth, distally glabrous. Culm-nodes brown. Leaf-sheaths mostly shorter than adjacent culm internode, smooth, glabrous on surface. Ligule an eciliate membrane, 0.2 mm long, truncate. Leaf-blades involute, 2.5–10.5 cm long, 2.5–4 mm wide. Leaf-blade surface pubescent, hairy on both sides. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 4.5–7 cm long. Rhachis flattened, glabrous on surface or puberulous on surface, ciliate on margins. Spikelet packing broadside to rhachis, regular, 2 -rowed. Rhachis internodes 5–9 mm long. Spikelets solitary or in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 8–13 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1 mm long, pubescent. Floret callus pubescent. Floret callus hairs 0.2–0.5 mm long.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate, 5–6 mm long, coriaceous, without keels, 2–4 -veined. Lower glume surface scabrous. Lower glume apex acuminate, awned, 1 -awned, awn 1–3 mm long. Upper glume lanceolate, 5–8 mm long, coriaceous, with membranous margins, without keels, 2–5 -veined. Upper glume primary vein conspicuous. Upper glume surface scabrous. Upper glume apex acuminate, awned, 1 -awned, awn 3 mm long.

Florets. Fertile lemma lanceolate, 8–9 mm long, coriaceous, much thinner on margins, without keel, 5 -veined, more than 3-veined. Lemma surface scaberulous, rough below. Lemma apex awned, 1 -awned. Principal lemma awn straight, 2–5 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels winged, narrowly winged, ciliate, adorned above, with 0.5 of their length adorned, with hairs 0.5 mm long. Palea surface puberulous, hairy on back. Palea apex emarginate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, 1 mm long, membranous, ciliate. Anthers 3, 2 mm long, purple. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, hairy at apex, apex unappendaged. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Qinghai, Xinjiang.

Elymus (Roegneria) hybridus (Keng) S.L. Chen. *Bull. Nanjing Bot. Gard. Mem. Sun Yat Sen*, 1987: 9 (1988).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, U. Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria hybrida* Keng, *Acta Univ. Nankin. Sci. Nat.* 1963(1): 18 (1963)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Jiangsu: Nanjing, mountain slopes, 7 May 1956, T.H. Y (HT: NJU).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 586 & Fig. 587).

Derivation (Clifford & Bostock 2007): L. of mixed parentage. Sharing the characters of two or more species and not necessarily genetic hybrids.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 70–100 cm long, 5–6 -noded. Leaf-sheaths longer than adjacent culm internode, smooth, glabrous on surface. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 0.5–1 mm long, truncate. Leaf-blades 12–25 cm long, 5–8 mm wide. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 27 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, regular, 2 -rowed. Rhachis internodes 10–17 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 6–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 17–20 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1.5 mm long, pubescent. Floret callus pubescent. Floret callus hairs 0–1 mm long.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate or oblong, 6–8 mm long, coriaceous, much thinner on margins, without keels, 3–5 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acuminate, muticous or awned, 1 -awned, awn 1–2.5 mm long. Upper glume lanceolate or oblong, 8–9 mm long, coriaceous, with membranous margins, without keels, 5–7 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex acuminate, muticous or awned, 1 -awned, awn 1–2.5 mm long.

Florets. Fertile lemma lanceolate or oblong, 10–11 mm long, coriaceous, much thinner on margins, without keel, 5 -veined, more than 3-veined. Lemma surface pubescent, hairy all along or above and below. Lemma margins ciliate. Lemma apex awned, 1 -awned. Principal lemma awn straight, 20–30 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels winged, narrowly winged, ciliolate, adorned above. Palea surface pilose, hairy on margins, hairy above. Palea apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2 mm long, yellow. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, hairy at apex, apex unappendaged. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China Southeast.

TDWG4. Jiangsu.

Elymus interruptus Buckl. *Proc. Acad. Soc. Philad.* 1862 :99 (1863).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: LT: *Buckley s.n.*, USA: Texas: Llano County (PH; US (photo Buckley hb. 556 PH)). LT designated by Hitchcock, Man. Grass. U.S. 844 (1935), but without citing a specific sheet in a specific herbarium.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (307).

Derivation (Clifford & Bostock 2007): L. not continuous. Spikelets or inflorescence branches clustered at intervals along an axis.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms 60–130 cm long. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane. Leaf-blades 15–30 cm long, 5–12 mm wide. Leaf-blade surface scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, flexuous, bilateral, 8–20 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1–2 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets, or of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume subulate, 10–30 mm long, 1 length of upper glume, coriaceous, 1 -veined. Lower glume surface puberulous. Upper glume subulate, 10–30 mm long, coriaceous, 1 -veined. Upper glume surface puberulous.

Florets. Fertile lemma elliptic, 10 mm long, 2 mm wide, chartaceous, 5 -veined, more than 3-veined. Lemma lateral veins distinct (above). Lemma surface scabrous, glabrous or pubescent. Lemma apex acute, awned, 1 -awned. Principal lemma awn flexuous, 10–30 mm long overall. Palea 1 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (1 ref TROPICOS).

Distribution (TDWG). Continent. North America.

Country /Province /State. Western Canada, Northwest USA, North-central USA, Southwestern USA, South-central USA, Southeastern USA. Saskatchewan. Wyoming. Iowa, Minnesota, Missouri, North Dakota, South Dakota, Wisconsin. Arizona. New Mexico, Texas. Arkansas.

Elymus intramongolicus (S. Chen & Gaoqwa) S.L. Chen. *Bull. Nanjing Bot. Gard. Mem. Sun Yat Sen*, 1987: 9 (1988).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria intramongolica* Shan Chen & W. Gao, *Acta Phytotax. Sin.* 17(4): 93–94, pl. 1 (1979)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Nei Monggol: Bogda Shan, Dong Ujimqin Qi, Xilin Gol Meng, 15 Aug. 1975, *Resource Group 10717* (HT: NM-GRI).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 70–120 cm long. Ligule an eciliate membrane. Leaf-blades 10–25 cm long, 8–12 mm wide. Leaf-blade surface scabrous, glabrous or pilose, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 6–15 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, crowded. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 6–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume linear or lanceolate, 7–10 mm long, 1 length of upper glume, coriaceous, without keels, 5–7 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous, rough on veins, inner surface pubescent (below). Lower glume apex acute, mucronate or awned, 1 -awned, awn 0.2–2 mm long. Upper glume lanceolate or oblong, 7–10 mm long, 0.7–0.8 length of adjacent fertile lemma, coriaceous, without keels, 5–7 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous, rough on veins, inner surface pubescent (below). Upper glume apex acute, mucronate or awned, 1 -awned, awn 0.2–2 mm long.

Florets. Fertile lemma lanceolate, 9–12 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma surface puberulous. Lemma apex acute, awned, 1 -awned. Principal lemma awn 1–2.5 mm long overall. Palea 0.8–0.9 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3, 2–2.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Inner Mongolia.

TDWG4. Nei Mongol.

Elymus ircutensis G.A. Peshkova. *Fl. Sibir. (Poaceae)*, 2: 17 (2001).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Russia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Russia, Burjatia, Mondy: Peshkova 2655 (NSK holo).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms 100–150 cm long. Ligule an eciliate membrane. Leaf-blades 3–8 mm wide. Leaf-blade surface glabrous or pilose, hairy on both sides.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, arcuate, bilateral. Rhachis flattened. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 1 length of upper glume, coriaceous, much thinner on margins, without keels, 3–5 -veined. Lower glume surface smooth or scabrous. Lower glume apex entire or with a unilateral tooth, setaceously acuminate. Upper glume lanceolate, 0.75 length of adjacent fertile lemma, coriaceous, with membranous margins, without keels, 3–5 -veined. Upper glume surface smooth or scabrous. Upper glume apex entire or with a unilateral tooth, setaceously acuminate.

Florets. Fertile lemma lanceolate, coriaceous, 5 -veined, more than 3-veined. Lemma surface puberulous. Lemma apex acute, awned, 1 -awned. Principal lemma awn 5–12 mm long overall, 1 length of lemma. Palea keels scabrous, with 15–30 enations per keel. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.8–2.2 mm long.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Siberia. Irkutsk.

Elymus jacquemontii (Hook.f.) T.A. Cope. *Fl. Pakistan*, 143: 622 (1982).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *Agropyron*).

TYPE from China & India. **Basionym or Replaced Name:** *Agropyron jacquemontii* Hook. f., *Fl. Brit. India* 7(22): 369–370 (1897) [1896]

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *Jacquemont s.n.*, China: Xizang: Bekar

LT: *T. Thomson s.n.*, 19 Aug. 1848, India: Nubra, 17,000 ft (K). LT designated by Lu, *Nordic J. Bot.* 15(1): 15 (1995).

ST: *Strachey & Winterbottom s.n.*, India: plain N. of Kumaon, 15,500 ft

ST: *Stoliczka s.n.*, China: Xizang?: Chimoreri.

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 573).

Derivation (Clifford & Bostock 2007): in honor of Victor Jacquemont (1801–1832), French naturalist and traveller.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths papery (hyaline), pallid (silvery), glossy. Culms erect or geniculately ascending, 18–32 cm long. Ligule an eciliate membrane. Leaf-blades filiform, conduplicate or convolute, 3–9 cm long, 1.5–2 mm wide. Leaf-blade surface smooth, glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 3–6 cm long. Rhachis flattened, smooth on margins. Spikelet packing broadside to rhachis, lax. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 16–20 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate or oblong, 4.5–6.5 mm long, 0.75–0.8 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume lateral veins ribbed. Lower glume surface smooth or scabrous. Lower glume apex acuminate, muticous or awned, 1 -awned, awn 0–1 mm long. Upper glume elliptic or oblong, 6–8 mm long, 0.75–0.9 length of adjacent fertile lemma, coriaceous, without keels, 3–5 -veined. Upper glume lateral veins ribbed. Upper glume surface smooth or scabrous. Upper glume apex acuminate, muticous or awned, 1 -awned, awn 0–2 mm long.

Florets. Fertile lemma elliptic or oblong, 8–9 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma surface smooth or scabrous. Lemma apex acute, awned, 1 -awned. Principal lemma awn curved, reflexed, 15–40 mm long overall. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3, 1.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (3 refs TROPICOS), or 42 (1 ref TROPICOS).

Distribution (TDWG), Continent. Temperate Asia, Tropical Asia.

Country /Province /State. China. Tibet, Xinjiang. **Indian Subcontinent.** Pakistan, West Himalaya.

Elymus jacutensis (Drob.) Tsvelev. *Novosti Sist. Vyssh. Rast.*, 9: 61 (1972).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Agropyron jacutense* Drobov, *Trav. Mus. Bot. Acad. Petersb.* 16: 94 (1916) . T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Russia, Vilyuiskii area: Drobov 625 (LE lecto).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From Jacutia, now Yakutsk, eastern Siberia.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Culms 45–75 cm long. Ligule an eciliate membrane. Leaf-blades 2–4 mm wide. Leaf-blade surface scabrous, glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 7–13 cm long, bearing 15–25 fertile spikelets on each. Rhachis flattened. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15–17 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 5–8 mm long, 1 length of upper glume, coriaceous, much thinner on margins, without keels, 3 -veined. Lower glume apex attenuate or setaceously acuminate. Upper glume lanceolate, 5–8 mm long, 0.5–0.75 length of adjacent fertile lemma, coriaceous, with scarious margins, without keels, 3 -veined. Upper glume apex attenuate or setaceously acuminate.

Florets. Fertile lemma lanceolate, 9–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface pubescent. Lemma apex acute, awned, 1 -awned. Principal lemma awn 5–12 mm long overall. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 1.5–1.8 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (2 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Siberia, Russian far east. Altay, Buryatiya, Chita, Irkutsk, Tuva. Kamchatka, Magadan.

TDWG4.

Elymus jufinshanicus (C.P. Wang & H.L. Yang) S.L. Chen. *Novon*, 7(3): 228 (1997).

Accepted by: U. Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria alashanica* var. *jufinshanicus* C.P. Wang & H.L. Yang, *Bull. Bot. Res., Harbin* 4(4): 87–88, f. 5 (1984)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Nei Monggol: Daqing Shan-Jiufeng Shan, in locis alpinis, 2200 m, 15 July 1964, *Y.C. Ma et al.* 20 (HT: NMAC).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 582).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Inner Mongolia.

TDWG4. Nei Mongol.

Elymus (Elytrigia) kaachemicus (M.N. Lomonosova & I.M. Krasnoborov) FORSAN.

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online.

TYPE from Russia. **Basionym or Replaced Name:** *Elytrigia kaachemica* M.N. Lomonosova & I.M. Krasnoborov, *Bot. Zhurn.*, 67(8): 1138 (1982). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Russia, Kaa-Chemski: Krasnoborov (NS holo).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms geniculately ascending, 30–45 cm long. Ligule an eciliate membrane. Leaf-blades 1–2 mm wide, glaucous. Leaf-blade surface smooth or scaberulous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight or arcuate, bilateral. Rhachis flattened. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 12 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 5–7 mm long, 1 length of upper glume, coriaceous, without keels, 3 -veined. Upper glume lanceolate, 5–7 mm long, 0.5–0.66 length of adjacent fertile lemma, coriaceous, without keels, 3 -veined. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, 10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface pilose. Lemma apex acute, awned, 1 -awned. Principal lemma awn 4–5 mm long overall. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Siberia. Tuva.

Elymus kamojii (Ohwi) S.L. Chen. *Bull. Nanjing Bot. Gard. Mem. Sun Yat Sen*, 1987: 9 (1987).

Accepted by: S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Agropyron kamojii* Ohwi, *Acta Phytotax. & Geobot., Kyoto*, 11: 179 (1942). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China, Manchuria, Dairen: Dorsett & Morse 5845.

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 586 as *Elymus kamoji* var. *kamoji*).

Derivation (Clifford & Bostock 2007): In honor of Kamoj, Japanese botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Russian far east, **China, Eastern Asia.** China South Central, Inner Mongolia, Manchuria, China North-Central, Qinghai, China Southeast, Tibet, Xinjiang. Japan, Korea.

TDWG4. Hebei, Shaanxi, Shandong. Anhui, Fujian, Guangxi, Henan, Zhejiang. Guizhou, Hubei, Sichuan, Yunnan.

Elymus (Agropyron) kanashiroi (Ohwi) FORSAN. (2000).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from China. **Basionym or Replaced Name:** *Agropyron kanashiroi* Ohwi, *Journ. Jap. Bot.* 19: 167 (1943). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China, Nei Mongol: Kanashiro 3907.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Tetsuo Kanashiro (fl. 1912) Japanese botanist, also known as Tetsuo Amano.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Culms 40–50 cm long, 2–3 -noded. Culm-internodes smooth. Leaf-sheaths 5–10 cm long. Ligule an eciliate membrane. Leaf-blades convolute, 10–15 cm long, 2–3 mm wide, glaucous. Leaf-blade surface ribbed, scaberulous, rough adaxially. Leaf-blade margins scaberulous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 5–10 cm long, bearing 7–10 fertile spikelets on each. Rhachis scabrous on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, compressed slightly, 12–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes smooth. Floret callus glabrous.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 6–7 mm long, 1 length of upper glume, coriaceous, without keels, 5 -veined. Lower glume apex acuminate. Upper glume lanceolate, 6–7 mm long, 0.66 length of adjacent fertile lemma, coriaceous, without keels, 5 -veined. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, 9–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma apex acute or acuminate, muticous. Palea 8–9 mm long. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 3.5–4 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Inner Mongolia.

TDWG4. Ningxia.

Elymus karakabinicus Yu.A. Kotukhov. *Bot. Zhurn.*, 77(6): 89 (1992).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Russia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Russia, Altai, Tarbagatai: Kotuchov (LE holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. *-ica*, belonging to. From Karakabin Basin, Kazakhstan.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms 70–100 cm long. Culm-internodes distally glabrous. Ligule an eciliate membrane. Leaf-blades 4–8 mm wide. Leaf-blade surface glabrous or pilose, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight, bilateral, 9–15 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, crowded. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 9–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes glabrous. Floret callus pilose.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 6–7.5 mm long, 1 length of upper glume, coriaceous, without keels, 3–6 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acute, awned, 1 -awned, awn 2–3 mm long. Upper glume lanceolate, 6–7.5 mm long, 0.75 length of

adjacent fertile lemma, coriaceous, without keels, 3–6 -veined. Upper glume surface scabrous, rough above. Upper glume apex acuminate, awned, 1 -awned, awn 2–3 mm long.

Florets. Fertile lemma lanceolate, 8–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface smooth or scaberulous, rough on veins. Lemma apex acute, mucous. Palea 1 length of lemma. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 2 mm long.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Siberia. Altay.

Elymus (Agropyron) kasteki (Pop.) FORSAN. (1999).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.Tsvelev, *Grasses of the Soviet Union* (1983) (as *Elytrigia*).

TYPE from Russia. **Basionym or Replaced Name:** *Agropyron kasteki* Popov, *Bull. Soc. Nat. Mosc., Biol.*, n. s. 47: 84 (1938). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Russia, Alatau, Kastek R.: Popov (LE holo).

Recent Synonyms: *Elytrigia kasteki* (M. Pop.) Tsvelev, *Novosti Sist. Vyssh. Rast.*, 10: 31 (1973).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): from Kastek River, near Tashkent, former Soviet Union.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes elongated. Butt sheaths persistent and investing base of culm, with compacted dead sheaths. Culms erect, 20–40 cm long. Culm-nodes purple, glabrous. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane. Leaf-blades 7–20 cm long, 4–8 mm wide. Leaf-blade surface scabrous, rough adaxially, glabrous. Leaf-blade margins scaberulous. Leaf-blade apex attenuate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, flexuous, bilateral, 8–15 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, contiguous. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15–25 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 8–9 mm long, 1 length of upper glume, coriaceous, without keels, 5 -veined. Lower glume lateral veins prominent. Lower glume surface asperulous. Lower glume apex entire or dentate, 2 -fid, acute. Upper glume lanceolate, 8–9 mm long, 0.8–0.9 length of adjacent fertile lemma, coriaceous, without keels, 5 -veined. Upper glume lateral veins prominent. Upper glume surface asperulous. Upper glume apex acute.

Florets. Fertile lemma lanceolate, 10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma lateral veins prominent. Lemma apex acute, awned, 1 -awned. Principal lemma awn 5–7 mm long overall. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Middle Asia. Kirgizistan.

TDWG4.

Elymus kengii (Tsvelev) D.F. Cui. *Fl. Xinjiangensis*, 6: 183 (1996).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from China. **Basionym or Replaced Name:** *Agropyron kengii* Tsvelev, *Rast. Tsentral. Azii, Fasc.* 4, 18 (1968). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: : Based on *Roegneria hirsuta*; *Roegneria hirsuta* Keng ex Y.L. Keng & S.L. Chen, *J. Nanjing Univ. (Nat. Sci.)*, 3: 84 (1963).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): In honor of Keng Yi-li (1894–1975) Chinese agrostologist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Rhizomes elongated. Culms erect or geniculately ascending, 40–70(–150) cm long, 2–3 -noded. Leaf-sheaths smooth, glabrous on surface or hirsute. Ligule an eciliate membrane. Leaf-blades 4–12 cm long, 3–5 mm wide, stiff. Leaf-blade surface glabrous or pubescent or pilose. Leaf-blade margins ciliate.

Inflorescence. Inflorescence composed of racemes. Peduncle pubescent above. Racemes 1, single, bilateral, (5–)6–8 cm long, 7–10 mm wide. Rhachis scabrous on margins. Spikelet packing broadside to rhachis, crowded. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–14 mm long, breaking up at maturity, disarticulating below each fertile floret. Spikelet callus base truncate.

Glumes. Glumes similar, shorter than spikelet. Lower glume oblong or ovate, 4.5–6 mm long, 1 length of upper glume, coriaceous, without keels, 3–4 -veined. Lower glume primary vein smooth or scabrous. Lower glume apex acuminate. Upper glume oblong or ovate, 5–7 mm long, 0.6–0.75 length of adjacent fertile lemma, coriaceous, without keels, 3–4 -veined. Upper glume primary vein smooth or scabrous. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, 8–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface hirsute. Lemma apex acute, awned, 1 -awned. Principal lemma awn 1–6 mm long overall. Palea 1 length of lemma. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China North-Central, Qinghai, Xinjiang.

TDWG4. Gansu.

Elymus kingianus (Endl.) A. Love. *Feddes Repert.* 95: 469 (1984).

TYPE from Australia, Norfolk Island. **Basionym or Replaced Name:** *Triticum kingianum* Endl., *Prodr. Fl. Norfolk.* 21 (1833)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Bauer s.n.*, Norfolk Islands: Phillip Island (W).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms geniculately ascending, weak, 60 cm long. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 0.5–1 mm long, truncate. Leaf-blades 10–12 cm long, 6–9 mm wide, flaccid. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 20 cm long. Rhachis flattened. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 25–30 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 10 mm long, 1 length of upper glume, coriaceous, without keels, 3 -veined. Lower glume apex attenuate. Upper glume lanceolate, 10 mm long, coriaceous, without keels, 5–7 -veined. Upper glume apex attenuate.

Florets. Fertile lemma lanceolate, 10–15 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma apex attenuate, awned, 1 -awned. Principal lemma awn 7–10 mm long overall. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Lord Howe-Norfolk Is.

Elymus komarovii (Nevski) Tsvelev. *Akad. Nauk SSSR Bot. Inst. Komarova, Rast. Tsentral. Azii, Fasc.* 4, 216 (168) (1968).

Accepted by: S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from Russia. **Basionym or Replaced Name:** *Agropyron komarovii* Nevski, *Izv. Bot. Sada Akad. Nauk SSSR* 30: 620 (1932)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Russia: Siberia: steppes, near villages, 1800–2900 m.,

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): In honor of Vladimir Leontievitch Komarov (1869–1946) Russian botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Middle Asia, China, Mongolia, Russia. Kazakhstan, Kirgizistan, Turkmenistan, Uzbekistan. Xinjiang. Mongolia.

Elymus kronokensis (Komarov) Tsvelev. *Akad. Nauk SSSR Bot. Inst. Komarova, Rast. Tsentral. Azii, Fasc.* 4, 21 (1968).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Agropyron kronokense* Kom., *Feddes Repert.* 13: 87 (1915). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Russia: Kamchatka: Kronostkii pass, dry tundra in the alpine zone, 10 Aug. 1909, V. Komarov 3180 (HT: LE; IT: LE).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From Lake Kronotzkoe, Kamtchatka, Russian Far East.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Flower and Fruit. $2n = 28$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China, Mongolia, Russia. Xinjiang. Mongolia.

TDWG4.

Elymus kuramensis (Melderis) Cope. *Fl. Pakistan*, 143: 617 (1982).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *Agropyron*).

TYPE from Afghanistan. **Basionym or Replaced Name:** *Agropyron kuramense* Melderis, *Grass. Burma, Ceylon, India & Pakistan* 663, 690 (1960)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Afghanistan: Kurrum Valley, fields near Kaiwas, Jul 1879, J.E.T. Aitchison 709 (HT: BM).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From Kurrum Valley, Afghanistan.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–70 cm long, 3 -noded. Culm-internodes distally pubescent. Culm-nodes pubescent. Leaf-sheaths puberulous, outer margin hairy. Ligule an eciliate membrane, 0.2–0.4 mm long, pubescent on abaxial surface, lacerate, truncate. Leaf-blades 6–14 cm long, 2–2.5 mm wide, glaucous. Leaf-blade surface pilose, sparsely hairy, hairy adaxially. Leaf-blade margins scaberulous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Peduncle smooth, glabrous. Racemes 1, single, erect or drooping, bilateral, 3–9.5 cm long. Rhachis flattened, glabrous on surface, ciliate on margins. Spikelet packing broadside to rhachis, lax. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 10–13 mm long, falling entire. Spikelet callus base truncate. Rhachilla internodes scaberulous.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 5–6 mm long, 0.75 length of upper glume, coriaceous, much thinner on margins, without keels, 1–5 -veined. Lower glume surface asperulous, rough on veins. Lower glume apex acute, muticous or mucronate. Upper glume lanceolate, 6–8 mm long, 1 length of adjacent fertile lemma, coriaceous, with scarious margins, without keels, 1–5 -veined. Upper glume surface asperulous, rough on veins. Upper glume apex acute, muticous or mucronate.

Florets. Fertile lemma lanceolate or oblong, 6–8 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma surface scabrous, rough above. Lemma apex acute, awned, 1 -awned. Principal lemma awn 9–15 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels ciliolate, adorned above. Palea surface puberulous, hairy on back, hairy above. Palea apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2 mm long. Stigmas 2. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. Western Asia. Iran. Indian Subcontinent. Pakistan.

Elymus lanceolatus (Scribn. & J. G. Smith) Gould. *Madrono*, 10: 94 (1949).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Agropyron lanceolatum* Scribn. & J.G. Sm., *Bull. Div. Agrostol.*, *U.S.D.A.* 4: 34 (1897)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *E. Palmer* 266, 1 Jul 1893, USA: Idaho (US-556657). LT designated by Hitchcock, *Man. Grass. U.S.* 773 (1935), without explicitly citing a specific herbarium.

ST: *E. Palmer* 267, Jan 1893, USA: Idaho: southern Idaho (NY-327593).

Recent Synonyms: *Elytrigia villosa* (Drobov) Tzvelev, *Fl. Arct. URSS, Fasc.* 2, 247 (1964).

Illustrations (Books): K.F.Best, et al, *Prairie Grasses* (1971) (33 as *Agropyron dasystachyum*), M.E.Barkworth et al, *Flora of North America north of Mexico Vol 24 Poaceae*, part 1 (2007) (328, as subsp. *riparius* & subsp. *psammophilus* & subsp. *lanceolatus*).

Derivation (Clifford & Bostock 2007): *L. lanceus*, lance; -ola, diminutive; -ata, possessing. Mostly a reference to lanceolate leaf-blades.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, culms solitary or caespitose. Rhizomes elongated, wiry. Culms 40–80 cm long. Culm-internodes thin-walled. Leaf-sheaths pubescent or pilose. Leaf-sheath auricles falcate, 1–1.5 mm long. Ligule an eciliate membrane, 0.5 mm long, erose. Leaf-blades involute, 2–4 mm wide, stiff, glaucous. Leaf-blade surface scaberulous, rough adaxially or on both sides.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 4–20 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets solitary or in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, 7–10 mm long, 1 length of upper glume, coriaceous, without keels, 5–7 -veined. Lower glume surface pubescent. Lower glume apex acute. Upper glume lanceolate, 7–9 mm long, coriaceous, without keels, 3–5 -veined. Upper glume apex acute.

Florets. Fertile lemma lanceolate to oblong, 8–10 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma apex acute, awned, 1 -awned. Palea 1 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (6 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia, North America.

Country /Province /State. Siberia. Yakutiya. **Subarctic America, Western Canada, Eastern Canada, Northwest USA, North-central USA, Northeast USA, Southwestern USA.** Yukon. Alberta, British Columbia, Manitoba, Saskatchewan. Colorado, Idaho, Montana, Oregon, Washington, Wyoming. Kansas, North Dakota, Nebraska, South Dakota. Arizona, California, Nevada, Utah.

TDWG4.

Elymus lancangensis S.L. Lu & Yu H. Wu. *J. Jap. Bot.* 82: 333–336, f. 1–2 (2007).

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Qinghai: Zadoi Xian, Jieduo Xiang, rocky crevice in alpine shrubby meadow, 4200–4450 m, 21 July 2005, *Y.H. Wu* 34 618 (HT: QTPMB/HNWP) Qinghai-Tibetan Plateau Museum of Biology, Chinese Academy of Sciences.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Rhizomes short. Culms erect, 30–55 cm long, 2 mm diam., 2–3 -noded. Culm-nodes black, glabrous. Leaf-sheaths mostly shorter than adjacent culm internode, puberulous (below). Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades 8–15 cm long, 2–4.4 mm wide. Leaf-blade surface pubescent, densely hairy, hairy on both sides. Leaf-blade margins ciliate.

Inflorescence. Inflorescence composed of racemes, embraced at base by subtending leaf. Racemes 1, single, drooping, bilateral, 10–15 cm long, 7–16 mm wide. Rhachis flattened, glabrous on surface. Spikelet packing broadside to rhachis, lax. Rhachis internodes 8–15 mm long (-40 at base). Spikelets solitary. Fertile spikelets sessile or pedicelled. Pedicels present, 1–2 mm long.

Fertile Spikelets. Spikelets comprising 5–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15–22(–24) mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar. Lower glume lanceolate, 4–6 mm long, coriaceous, without keels, 3 -veined. Lower glume apex acuminate. Upper glume lanceolate, 6–8.5 mm long, coriaceous, without keels, 5 -veined. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate or oblong, 9 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface glabrous or hispidulous, hairy below. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn reflexed, 10–24 mm long overall, limb scabrous. Palea 1 length of lemma, 2 -veined. Palea keels ciliate. Palea surface puberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.5–1.8 mm long, green.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Qinghai.

Elymus laxinodis (L.B. Cai) S.L. Chen & G.H. Zhu. *Novon* 12(3): 427 (2002).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria laxinodis* L.B. Cai, *Guihaia* 16(3): 199 (1996). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China, Sichuan, Kangding: Exped. Xizang 2599 (HNWP holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. laxus*, loose; *nodus*, knot. Culms geniculate at the base and so the plant not densely tufted.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms erect or geniculately ascending, 40–80 cm long, 1–1.5 mm diam., 3–4 -noded. Culm-internodes distally pubescent. Leaf-sheaths puberulous. Ligule an eciliate membrane, 0.5 mm long, truncate. Leaf-blades 10–16 cm long, 4–6 mm wide. Leaf-blade surface hirsute, hairy on both sides.

Inflorescence. Inflorescence composed of racemes. Peduncle pubescent above. Racemes 1, single, straight or arcuate, bilateral, 8–11 cm long. Rhachis flattened, puberulous on surface. Spikelet packing broadside to rhachis, lax. Rhachis internodes 13–28 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15–18 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar. Lower glume lanceolate, 3–4 mm long, coriaceous, without keels, 3–5 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acuminate. Upper glume lanceolate, 4–5 mm long, coriaceous, without keels, 3–5 -veined. Upper glume surface scabrous, rough on veins. Upper glume margins scabrous. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, 9–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface puberulous. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn curved, 12–16 mm long overall. Palea 0.9 length of lemma, 2 -veined. Palea keels scabrous. Palea surface puberulous, hairy on back. Palea apex truncate or obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 2–2.5 mm long, yellow. Caryopsis lanceolate, 6–7 mm long.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central, Qinghai.

TDWG4. Sichuan.

Elymus lazicus (Boiss.) A. Melderis. *Notes Roy. Bot. Gard. Edinburgh*, 42(1): 79 (1984).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, U. Quattrocchi, *CRC World Dictionary of Grasses* (2006), N. Tsvelev, *Grasses of the Soviet Union* (1983) (as *Elytrigia divaricata*).

TYPE from Turkey. **Basionym or Replaced Name:** *Agropyron lazicum* Boiss., *Fl. Orient.* 5: 661 (1884). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Turkey, Khabackar: Balansa (G holo).

Recent Synonyms: *Elytrigia divaricata* (Boiss. & Balansa) Nevski, *Acta Inst. Bot. Acad. Sc. URSS, Ser. I. Fasc.* 2, 78 (1936).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. -ica*, belonging to. From Lazica, now Lazistan, Turkey.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Culms geniculately ascending, 35–85 cm long. Culm-nodes glabrous or pubescent. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades convolute, 1.5–3 mm wide. Leaf-blade surface puberulous, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 5–10 cm long, bearing few fertile spikelets. Rhachis flattened, pubescent on margins. Spikelet packing broadside to rhachis. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 6–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 8–12 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus 0.2–0.4 mm long, glabrous, obtuse.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume elliptic or oblong, 6–10 mm long, 0.9 length of upper glume, coriaceous, without keels, 5–7 -veined. Lower glume lateral veins ribbed. Lower glume surface smooth or scabrous. Lower glume apex entire or with a unilateral tooth or dentate, 1–2 -fid, acute, mucronate or awned, 1 -awned, awn 1–6 mm long. Upper glume elliptic or oblong, 6–10 mm long, 0.75–0.9 length of adjacent fertile lemma, coriaceous, without keels, 5–7 -veined. Upper glume lateral veins ribbed. Upper glume surface smooth or scabrous. Upper glume apex entire or with a unilateral tooth or dentate, 1–2 -fid, acute, mucronate or awned, 1 -awned, awn 1–6 mm long.

Florets. Fertile lemma lanceolate to oblong, 4–6 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma surface scabrous, rough above. Lemma margins eciliate or ciliolate. Lemma apex acute, awned, 1 -awned. Principal lemma awn curved, reflexed, 15–35 mm long overall. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Western Asia. Iran.

TDWG4.

Elymus leianthus (Keng ex Y.L. Keng & S.L. Chen) S.L. Chen. *Novon*, 7(3): 229 (1997).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria leiantha* Keng ex Keng & S.L. Chen, *Acta Univ. Nankin. Sci. Nat.* 1963(1): 42 (1963)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Qinghai: Dadong Xian, Xiangshan, on the edge of a pool, 2380 m, 3 July 1945, *J. Ho* 758 (HT: NJU).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 584).

Derivation (Clifford & Bostock 2007): Gk *leios*, smooth; *anthos*, flower. Spikelets with glabrous glumes or lemmas.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central, Qinghai.

TDWG4. Yunnan.

Elymus leiotropis (Keng) A.Lvve. *Feddes Repert.* 95: 449 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria leiotropis* Keng ex Keng & S.L. Chen, *Acta Univ. Nankin. Sci. Nat.* 1963(1): 58 (1963)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Yunnan:.,

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 580).

Derivation (Clifford & Bostock 2007): Gk *leios*, smooth; *tropis*, keel. The midribs of the glumes and lemmas are glabrous.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 60–90 cm long, 1–1.5 mm diam., 3 -noded. Culm-internodes smooth. Leaf-sheaths loose, mostly shorter than adjacent culm internode, glabrous on surface. Ligule an eciliate membrane, 0.2 mm long, truncate. Leaf-blades flat or involute, 7–17 cm long, 2–4 mm wide. Leaf-blade surface scaberulous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Peduncle 12–17 cm long. Racemes 1, single, arcuate, bilateral, 10–15 cm long. Rhachis flattened, scabrous on surface. Spikelet packing broadside to rhachis, regular, 2-rowed. Rhachis internodes 7–15 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 15–20 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 2–2.5 mm long, pubescent. Floret callus pubescent.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate or oblong, 5–8 mm long, coriaceous, without keels, 3–5 -veined. Lower glume surface smooth or asperulous, rough on veins. Lower glume apex acuminate, mucous. Upper glume lanceolate or oblong, 6–8 mm long, coriaceous, without keels, 3–5 -veined. Upper glume surface smooth or asperulous, rough on veins. Upper glume apex acuminate, mucous.

Florets. Fertile lemma lanceolate, 12–13 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface scaberulous, rough above, glabrous or puberulous. Lemma margins scaberulous. Lemma apex awned, 1 -awned. Principal lemma awn 25–40 mm long overall. Palea 9 mm long, 2 -veined. Palea keels smooth or scaberulous, adorned above. Palea apex emarginate or truncate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, 7 mm long, hairy at apex, apex unappendaged. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central.

TDWG4. Yunnan.

Elymus lenensis (M. Pop.) Tsvelev. *Novosti Sist. Vyssh. Rast.*, 10: 24 (1973).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Agropyron lenense* Popov, *Bot. Mater. Gerb. Bot. Inst. Komarova Acad. Nauk SSSR* 18: 3 (1957)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Russia, Irkutsk, Kaimanova: Bardunov (LE holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From Lena River Basin, Siberia.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 20–40 cm long. Culm-internodes distally glabrous. Ligule an eciliate membrane. Leaf-blades involute, 1–1.5 mm wide. Leaf-blade surface smooth, glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight, bilateral, 4–6 cm long. Rhachis flattened. Spikelet packing broadside to rhachis, lax. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15–20 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume oblong, 5 mm long, 0.75 length of upper glume, coriaceous, without keels, 3 -veined. Lower glume lateral veins ribbed. Lower glume apex acute, mucronate. Upper glume oblong, 7 mm long, 1 length of adjacent fertile lemma, coriaceous, without keels, 5 -veined. Upper glume lateral veins ribbed. Upper glume apex acute, awned, 1 -awned, awn 2 mm long.

Florets. Fertile lemma lanceolate to oblong, 7–8 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma apex acute, awned, 1 -awned. Principal lemma awn 7–8 mm long overall. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Siberia. Irkutsk, Tuva.

TDWG4.

Elymus libanoticus (Hackel) A. Melderis. *Bot. J. Linn. Soc.*, 76(4): 377 (1978).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Syria. **Basionym or Replaced Name:** *Agropyron libanoticum* Hack., *Allg. Bot. Z. Syst.* 10: 21 (1904)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: IT: *E. Hartmann 480*, Jun-Jul 1903, [Syria]: Felsige Orte des westlichen Dschebel Sanin, Kreidekalk, ca. 2400 m (LE, LE, LE, S-G6643, US-557292, WAG). A.Kneucker: Gramineae exs. XVI Lf. 1904..

IT: *F.X. von Hartmann 16*, Syria (US-75294 (fragm. ex W)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. libanos*, rosemary; -icum, belonging to. Growing amongst rosemary (*Rosemarinus officinalis*).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Culms slender, 25–50 cm long. Leaf-sheaths glabrous on surface or pubescent. Ligule an eciliate membrane. Leaf-blades filiform, convolute, 7–15 cm long, 1 mm wide, stiff, glaucous. Leaf-blade surface puberulous or pubescent, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 5–10 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, compressed slightly, 12 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus glabrous.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 6–8 mm long, 1 length of upper glume, coriaceous, much thinner on margins, without keels, 3–5 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous, rough on veins (above). Lower glume apex acuminate to setaceous acuminate. Upper glume lanceolate, 6–8 mm long, 0.75–1 length of adjacent fertile lemma, coriaceous, with hyaline margins, without keels, 3–5 -veined. Upper glume lateral veins ribbed. Upper glume apex acuminate to setaceous acuminate.

Florets. Fertile lemma lanceolate, 7–8 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma margins eciliate or ciliolate. Lemma apex acute, mucous or mucronate. Palea 1 length of lemma. Palea keels ciliolate, adorned above. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$N = 7$ (1 ref TROPICOS). $2n = 14$ (1 ref TROPICOS).

Distribution (TDWG). **Continent.** Temperate Asia.

Country /Province /State. Western Asia. Iran.

Elymus lolioides (Candargy) A. Melderis. *Bot. J. Linn. Soc.*, 76(4): 382 (1978).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online (as *Elytrigia*), T.G.Tutin et al, *Flora Europaea* 5 (1980).

TYPE from Russia. **Basionym or Replaced Name:** *Triticum lolioides* Kar. & Kir., *Bull. Soc. Imp. Naturalistes Moscou* 14: 866 (1841)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Russia, Semipalatinsk: Karelin & Kiriloff 1123 (LE syn) ; Russia, Semipalatinsk: Karelin & Kiriloff 1124 (LE syn).

Recent Synonyms: *Elytrigia lolioides* (Candargy) Nevski, *Acta Univ. As. Med. Ser.* 8 b, *Bot. Fasc.* 17, 61 (1934).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. -oides, resembling. Similar to *Lolium*..

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, culms solitary. Rhizomes elongated. Culms 30–70 cm long. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane. Leaf-blades convolute, 5–6 mm wide. Leaf-blade venation distinct. Leaf-blade surface pubescent, hairy adaxially. Leaf-blade margins unthickened.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 7–15 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes sparsely hairy.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume elliptic, 4–6 mm long, 1 length of upper glume, coriaceous, much thinner on margins, without keels, 3–5 -veined. Lower glume apex obtuse.

Upper glume elliptic, 4–6 mm long, 0.6–0.7 length of adjacent fertile lemma, coriaceous, with hyaline margins, without keels, 3–5 -veined. Upper glume apex obtuse.

Florets. Fertile lemma oblong, 7–8.5 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma apex obtuse, muticous or mucronate. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 3.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Europe, Temperate Asia.

Region. Eastern Europe.

Country /Province /State. Central European Russia, East European Russia, South European Russia, Northwest European Russia, Ukraine. Siberia. Irkutsk, Tuva.

TDWG4.

Elymus longearistatus (Boiss.) Tsvelev. *Novosti Sist. Vyssh. Rast.*, 9: 62 (1972).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Iran. **Basionym or Replaced Name:** *Brachypodium longearistatum* Boiss., *Diagn. Pl. Orient., ser. 1*, 1(7): 127 (1846). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *Th. Kotschy 569*, 23 Jul 1843, Iran: In m. totschal pres Teheran (BM; ILT: LE). LT designated by Lu, *Nordic J. Bot.* 15(1): 27 (1995).

ST: *Th. Kotschy 755*, 29 Jul 1842, Iran: Prope fontem Dscheschme-Pias in m.Kuh-Daena. (LE).

ST: *Kotschy 659*, 17 Jul 1842, Iran: in glareosis, in alpe Kuh-Daena (LE).

Recent Synonyms: *Agropyron canaliculatum* Nevski, *Bull. Jard. Bot. Acad. Sc. URSS* 30: 509 (1932).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. longus, long; arista, bristle. Lemmas or glumes long awned.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes absent or elongated. Culms erect or geniculately ascending, 25–70 cm long. Leaf-sheaths pilose. Leaf-sheath oral hairs lacking. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades convolute, 5–15 cm long, 2–3 mm wide. Leaf-blade surface pilose, hairy adaxially.

Inflorescence. Inflorescence composed of racemes, embraced at base by subtending leaf. Racemes 1, single, bilateral, 6–15 cm long, bearing few fertile spikelets, bearing 2–3 fertile spikelets on each. Rhachis flattened, pubescent on surface (sparsely), scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes oblong, 10–15 mm long. Spikelets solitary. Fertile spikelets pedicelled or sessile. Pedicels present, oblong, 0–1.5 mm long.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 20–25 mm long, breaking up at maturity, disarticulating below each fertile floret. Spikelet callus glabrous, base truncate. Rhachilla internodes definite, 2–3 mm long.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume elliptic, 4–6 mm long, 0.6–0.8 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume primary vein scabrous. Lower glume lateral veins ribbed. Lower glume surface scabrous. Lower glume apex acuminate, muticous or awned, 1 -awned, awn 0–4 mm long. Upper glume elliptic, 6–8 mm long, 0.6–0.8 length of adjacent fertile lemma, coriaceous, without keels, 5–7 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous. Upper glume apex acuminate, muticous or awned, 1 -awned, awn 0–4 mm long.

Florets. Fertile lemma oblong, 9–10 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface puberulous. Lemma apex acute, awned, 1 -awned. Principal lemma awn curved, reflexed, 30–40 mm long overall. Palea 2 -veined. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, (2.5–)3–3.5 mm long. Stigmas 2, protandrous, laterally exerted. Ovary pubescent on apex. Hilum linear.

$2n = 28$ (7 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. Middle Asia, Western Asia, China. Turkmenistan, Tadjikistan. Iran. **Indian Subcontinent.** Pakistan, West Himalaya.

TDWG4. Uttah Pradesh. Himachal Pradesh, Jammu Kashmir.

Elymus macgregorii R.E. Brooks & J.J.N. Campb. *J. Kentucky Acad. Sci.* 61(2): 88 (2000).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: USA: Kentucky, Fayette Co., wooded banks of West Hickman Creek near Armstrong Mill Road, 31 May 1998, J. J. N. Campbell 98-001 (HT: US; IT: KANU, KNK, KY, MADI, MO, NCU, WIS).

Illustrations (Books): M.E. Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (297).

Derivation (Clifford & Bostock 2007): in honor of William McGregor (1846–1919) Scots-born physician and British colonial administrator.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 40–120 cm long. Leaf-sheaths mostly shorter than adjacent culm internode, glabrous on surface or pubescent. Leaf-sheath auricles falcate, 2–3 mm long. Ligule an eciliate membrane, 0.4–0.9 mm long, purple, truncate. Leaf-blades drooping, 7–15 mm wide, dark green or glaucous, pruinose. Leaf-blade surface glabrous or pubescent, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, oblong, bilateral, 4–12 cm long, 25–40 mm wide. Rhachis flattened, 0.3 mm wide. Spikelet packing broadside to rhachis, lax, 4–5 spikelets per cm. Rhachis internodes clavate, 4–7 mm long. Rhachis internode tip clavate. Spikelets ascending, in pairs. Fertile spikelets sessile, 2(–3) in the cluster.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, dorsally compressed, 10–15 mm long, breaking up at maturity, disarticulating between fertile florets but the lowest falling with glumes attached.

Glumes. Glumes collateral, deciduous, similar, shorter than spikelet. Lower glume lanceolate, gibbous, 8–16 mm long, 1 length of upper glume, coriaceous, without keels, (2–)4–5(–8) -veined. Lower glume surface smooth or scabrous. Lower glume apex acuminate, awned, 1 -awned, awn 10–25 mm long. Upper glume lanceolate, gibbous, 8–16 mm long, 1.2–1.5 length of adjacent fertile lemma, coriaceous, without keels, (2–)4–5(–8) -veined. Upper glume surface smooth or scabrous. Upper glume apex acuminate, awned, 1 -awned, awn 10–25 mm long.

Florets. Fertile lemma lanceolate to oblong, 6–12 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma surface smooth or scaberulous, glabrous or pilose. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn (15–)20–30 mm long overall. Palea 6–10 mm long, 0.9–1 length of lemma. Palea apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 2–4 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. Eastern Canada, North-central USA, Northeast USA, South-central USA, and Southeastern USA. Nova Scotia. Illinois, Missouri, North Dakota, Nebraska, Oklahoma, South Dakota, Wisconsin. Indiana, Massachusetts, Ohio, New Hampshire, New York, Pennsylvania, Rhode Island, West Virginia. Texas. Alabama, Arkansas, Florida, Georgia, Kentucky, Maryland, Mississippi, North Carolina, South Carolina, Virginia, District of Columbia.

Elymus macrochaetus (Nevski) Tsvelev. *Novosti Sist. Vyssh. Rast.*, 9: 61 (1972).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, U. Quattrocchi, *CRC World Dictionary of Grasses* (2006), N. Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Roegneria macrochaeta* Nevski, *Fl. URSS* 2: 612 (1934)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Russia, Obi-Dashtako R.: Coll?.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. makros, large; chaete, bristle. Lemmas long-awned.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 100–135 cm long. Culm-internodes distally pubescent. Leaf-sheaths antrorsely scabrous. Ligule an eciliate membrane. Leaf-blades 4–8 mm wide. Leaf-blade surface scabrous, rough abaxially, pilose, densely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Peduncle antrorsely scabrous above. Racemes 1, single, bilateral, 8.5–20 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 20–22 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 12–16 mm long, 1 length of upper glume, coriaceous, without keels, 7–9 -veined. Lower glume surface scabrous. Lower glume apex acuminate, awned, 1 -awned, awn 1–3 mm long. Upper glume lanceolate, 12–16 mm long, 1 length of adjacent fertile lemma, coriaceous, without keels, 7–9 -veined. Upper glume surface asperulous. Upper glume apex acuminate, awned, 1 -awned, awn 1–3 mm long.

Florets. Fertile lemma lanceolate, 12–16 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface pubescent. Lemma apex acute, awned, 1 -awned. Principal lemma awn straight or curved, 30–35 mm long overall. Palea 9–13.5 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Middle Asia. Turkmenistan.

TDWG4.

Elymus macrourus (Turcz.) Tsvetlev. *Sched. Herb. Fl. URSS*, 18: 30 (1970).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvetlev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Triticum macrourum* Turcz., *Syn. Pl. Glumac.* 1: 343 (1854)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: IT: *I. Kuznetsov in Turcz. Cat. Baic. nr. 1328 p.p.*, 1834, Russia: In sabulosis ad fl. Angaram superiorem (IT: LE (7 dups.)).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 24 Poaceae*, part 1 (2007) (325).

Derivation (Clifford & Bostock 2007): Gk. makros, large; oura, tail; Inflorescence a spike or spike-like panicle.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 35–100 cm long. Culm-nodes glabrous. Leaf-sheaths glabrous on surface or puberulous. Ligule an eciliate membrane, 0.5–1 mm long. Leaf-blades 7–15 cm long, 1.5–9 mm wide. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 4.5–15 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear, 6–9 mm long. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–26 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 5–10 mm long, 1 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous, rough on veins. Lower glume apex acute. Upper glume lanceolate, 5–10 mm long, 0.7–1 length of adjacent fertile lemma, coriaceous, without keels, 3–5 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous, rough on veins. Upper glume apex acute.

Florets. Fertile lemma elliptic, 7–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface pubescent. Lemma apex acute, mucicous or awned, 1 -awned. Principal lemma awn 0–7 mm long overall. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 1–2 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (2 refs TROPICOS).

Distribution (TDWG). Continent. Europe, Temperate Asia, North America.

Region. Eastern Europe.

Country /Province /State. East European Russia, North European Russia. Siberia, Russian far east, **Middle Asia, China.** Altay, Buryatiya, Chita, Irkutsk, Krasnoyarsk, Tuva. Amur, Kamchatka, Magadan, Sakhalin. Kazakhstan. China South Central, Qinghai. **Subarctic America.** Alaska, Yukon, Northwest Territories, Greenland.

TDWG4. Yunnan.

Elymus magadanensis A.P. Khokhr. *Byull. Glavn. Bot. Sada (Moscow)* 109: 24 (1978).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, culms solitary or caespitose, clumped loosely. Culms erect, 50–90 cm long, 2–3 -noded. Leaf-sheaths pilose, with reflexed hairs. Ligule an eciliate membrane. Leaf-blades flat or convolute, 20–30 cm long, 2–5 mm wide. Leaf-blade surface ribbed, grooved adaxially, scabrous, rough adaxially, pilose, moderately hairy or densely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight or arcuate, bilateral, 20–30 cm long, 10 mm wide, bearing 20–25 fertile spikelets on each. Rhachis flattened, pubescent on surface, ciliate on margins. Spikelet packing broadside to rhachis, crowded. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 14–18 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes persistent, similar. Lower glume oblong or ovate, 5–8 mm long, 1 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume apex acuminate, awned, 1 -awned, awn 5–8 mm long. Upper glume lanceolate, 5–8 mm long, 0.5 length of adjacent fertile lemma, coriaceous, without keels, 3–5 -veined. Upper glume apex acuminate, awned, 1 -awned, awn 5–8 mm long.

Florets. Fertile lemma lanceolate, 10–13 mm long, 2.5–3 mm wide, coriaceous, keeled, 5 -veined, more than 3-veined. Lemma surface pilose. Lemma apex acute, awned, 1 -awned. Principal lemma awn straight or curved, 7–10 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 2–2.5 mm long, yellow. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Russian far east. Magadan.

Elymus magellanicus (Desv.) A. Love. *Feddes Repert.* 95: 472 (1984).

Accepted by: R.J. Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D. Clayton & K. Harman, *GrassBase* (2008) and online, U. Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Chile. **Basionym or Replaced Name:** *Triticum repens* var. *magellanicum* E. Desv., *Fl. Chil.* 6: 452 (1854)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *Le Guillou s.n.*, 1838–1840, Chile: Detroit de Magellan: Puerto Galant (P-DESV-163; ILT: US-75299 (fragm. ex P-DESV-163)). LT designated by Seberg, *Pl. Syst. Evol.* 166: 99 (1989).

ST: *Hombroen s.n.*, 1838–1840, Chile: Puerto del Hambre (P).

Recent Synonyms: *Elymus fuegianus* (Speg.) A. Love, *Feddes Repert.*, 95: 471 (1984). *Agropyron patagonicum* (Speg.) L. Parodi, *Rv. Mus. La Plata*, n. s. iii. Secc. Bot., 23 (1940).

Agropyron araucanum (L.R. Parodi) E.G. Nicora, *Fl. Patagonica* 3: 458 (1978).

Agropyron antarcticum L. Parodi, *Rev. Mus. La Plata*, n. s. iii. Secc. Bot., 48 (1940).

Agropyron fuegianum.

Agropyron magellanicum.

Elymus glaucescens.

Elymus araucanus.

Illustrations (Books): M.N. Correa, *Flora Patagonica* Parte III, Gramineae (1978) (454&460&462, Fig. 302&308&309&311 as *Agropyron patagonicum* & *Agropyron fuegianum* & *Agropyron antarcticum* & *Agropyron magellanicum*).

Images: R. Darke, *Ornamental Grasses* (2004);, R. Darke, *The Encyclopaedia of Grasses for Liveable Landscapes* (2007);

Derivation (Clifford & Bostock 2007): L. -ica, belonging to. From the Straits of Magellan.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Rhizomes elongated. Butt sheaths persistent and investing base of culm, with fibrous dead sheaths. Culms geniculately ascending, 40–70 cm long, 2–3 -noded. Leaf-sheaths glabrous on surface or puberulous. Ligule an eciliate membrane, 0.5–1 mm long. Leaf-blades flat or convolute, 20–30 cm long, 5–8 mm wide, glaucous. Leaf-blade surface scabrous, rough adaxially, glabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes, embraced at base by subtending leaf. Racemes 1, single, bilateral, 7–20 cm long. Rhachis ciliate on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, 5–6 mm long. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 12–21 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, asymmetrical, 8–15 mm long, 0.9 length of upper glume, coriaceous, much thinner on margins, without keels, 4–7 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous. Lower glume apex entire or dentate, 2 -fid, acute, mucronate. Upper glume lanceolate, asymmetrical, 9–17 mm long, 0.75 length of adjacent fertile lemma, coriaceous, with scarious margins, without keels, 4–7 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous, rough above. Upper glume apex entire or dentate, 2 -fid, acute, mucronate.

Florets. Fertile lemma lanceolate, 10–18 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma surface puberulous. Lemma apex dentate, 2 -fid, acute, mucronate or awned, 1 -awned. Principal lemma awn from a sinus, 1–5 mm long overall. Palea 1 length of lemma. Palea keels ciliate. Palea surface pubescent, hairy on back. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2–2.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, 6–7 mm long.

$2n = 28$ (2 refs TROPICOS).

Distribution (TDWG). Continent. South America.

Country /Province /State. Southern South America. Argentina South, Chile South. Falkland Is (Malvinas).

TDWG4. La Pampa. Chubut, Neuquén, Santa Cruz, Tierra del Fuego. Chiloe, Aisen, Magallanes. Magallanes.

Elymus magnaespes D.F. Cui. *Bull. Bot. Res. North-East. Forest. Inst.*, 10(3): 25 (1990).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Xinjiang: Kuche Xian, Daloba, in pratis, 2100 m, 18 Aug. 1983, *N.R. Cui 830348* (HT: XJA-1AC; ST: JSBI).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 583).

Derivation (Clifford & Bostock 2007): *L. magnus*, large; *caespes*, clump of plants. Forming large tussocks.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths persistent and investing base of culm, with fibrous dead sheaths. Culms erect, 50–70 cm long, 2 mm diam., 2 -noded. Leaf-sheaths mostly shorter than adjacent culm internode, glabrous on surface. Ligule an eciliate membrane. Leaf-blades filiform, flat or involute, 1.5–2.5 mm wide, stiff. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight, bilateral, 8–12 cm long, bearing 7–12 fertile spikelets on each. Rhachis scabrous on surface, ciliate on margins. Spikelet packing broadside to rhachis, 2 -rowed. Rhachis internodes 10 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 11–18 mm long, 2–3 mm wide, breaking up at maturity, disarticulating below each fertile floret. Spikelet callus base truncate. Rhachilla internodes 1–1.5 mm long, pubescent. Floret callus glabrous.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 3–6 mm long, 0.5–0.66 length of upper glume, coriaceous, without keels, 4–5 -veined. Lower glume apex acuminate, mucicous or mucronate. Upper glume lanceolate, 6–9 mm long, 0.6–0.9 length of adjacent fertile lemma, coriaceous, without keels, 3–5 -veined. Upper glume apex acuminate, mucicous or mucronate.

Florets. Fertile lemma lanceolate to oblong, 10 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma lateral veins distinct, evenly spaced. Lemma apex acute, awned, 1 -awned. Principal lemma awn 0–10 mm long overall. Palea 1 length of lemma. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 3 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Xinjiang.

Elymus magnipodus (L.B. Cai) S.L. Chen & G.H. Zhu. *Novon* 12(3): 427 (2002).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria magnipoda* L.B. Cai, *Acta Phytotax. Sin.* 35(2): 164, pl. 1, f. 18–26 (1997). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Qinghai: Golmud, in gravelly places along river banks, 3160 m, 19 June 1963, *Exped. Abandoned Land 001* (HT: HNWP).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 594).

Derivation (Clifford & Bostock 2007): *L. magna*, large; Gk. *pous*, foot. Awn shorter than lemma base from which it develops.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms erect, 20–35 cm long, 1–2.5 mm diam., 2-noded. Culm-internodes smooth, distally glabrous. Leaf-sheaths longer than adjacent culm internode, glabrous on surface. Ligule an eciliate membrane, 0.3 mm long. Leaf-blades involute, 40–70 cm long, 1.5–2.5 mm wide. Leaf-blade surface smooth or scabrous, rough adaxially, glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight, bilateral, 6–9 cm long. Rhachis flattened, glabrous on surface. Spikelet packing broadside to rhachis, lax. Rhachis internodes 10–28 mm long. Spikelets solitary. Fertile spikelets sessile or pedicelled. Pedicels absent or present, 1–2.5 mm long.

Fertile Spikelets. Spikelets comprising 6–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15–25 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar. Lower glume lanceolate, 4.5–7 mm long, coriaceous, without keels, 4–7-veined. Lower glume surface glabrous. Lower glume apex acute. Upper glume lanceolate, 4.5–7 mm long, coriaceous, without keels, 4–7-veined. Upper glume surface glabrous. Upper glume apex acute.

Florets. Fertile lemma lanceolate, 9–10 mm long, coriaceous, 5-veined, more than 3-veined. Lemma surface glabrous. Lemma apex acuminate, awned, 1-awned. Principal lemma awn straight or curved, 9–15 mm long overall. Palea 1 length of lemma, 2-veined. Palea keels ciliate. Palea apex truncate or obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 2–3 mm long, black. Caryopsis with adherent pericarp, obovoid, hairy at apex.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Qinghai.

Elymus marginatus (Lindb. f.) A. Love. *Feddes Repert.* 95: 453 (1984).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online.

TYPE from Morocco. **Basionym or Replaced Name:** *Agropyron marginatum* H. Lindb., *Acta Soc. Sci. Fenn., Ser. B, Opera Biol.* 2: 9 (1932)

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Morocco, Agrou: Coll?.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. margo*, border; -ata, possessing. Leaf-blades or lemma with hairs in their margins or the margins otherwise conspicuous.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Culms 50–100 cm long. Culm-nodes brown. Leaf-sheaths reticulately veined, puberulous. Leaf-sheath auricles absent or falcate. Ligule an eciliate membrane, 0.2–0.5 mm long, truncate. Leaf-blades 10–25 cm long, 4–8 mm wide. Leaf-blade midrib prominent beneath. Leaf-blade surface ribbed, glabrous. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Peduncle glabrous or pubescent above. Racemes 1, single, bilateral, 10–30 cm long. Rhachis angular or semiterete, scabrous on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile or pedicelled. Pedicels absent or present.

Fertile Spikelets. Spikelets comprising 3–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 20–30 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 7 mm long, 0.75 length of upper glume, coriaceous, much thinner on margins, without keels, 5–6-veined. Lower glume apex attenuate, mucronate or awned, 1-awned, awn 0.6–6 mm long. Upper glume lanceolate, 9 mm long, 0.75 length of

adjacent fertile lemma, coriaceous, with scarious margins, without keels, 6 -veined. Upper glume apex attenuate, mucronate or awned, 1 -awned, awn 0.5–6 mm long.

Florets. Fertile lemma lanceolate, 12–13 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma margins scabrous. Lemma apex acute, awned, 1 -awned. Principal lemma awn 10–15 mm long overall. Palea 1 length of lemma. Palea keels scabrous. Palea surface scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 6–8 mm long, yellow. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, linear or oblong, sulcate on hilar side, 8–9 mm long, hairy at apex. Embryo 0.15 length of caryopsis. Hilum linear, 1 length of caryopsis.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northern Africa. Algeria, Morocco, Tunisia.

Elymus mendocinus (Parodi) A. Love. *Feddes Repert.* 95: 472 (1984).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Argentina. **Basionym or Replaced Name:** *Agropyron mendocinum* Parodi, *Revista Mus. La Plata, Secc. Bot.* 3: 14, f. 2–3 (1940)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *T. et B. Macola P-8*, 17 Jan 1926, Argentina: Prov. Mendoza: San Rafael, Pampa del Plateado (BAA; ILT: BM, SI). LT designated by Seberg & Petersen, *Bot. Jahr. Syst.* 120(4): 528 (1998).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. -ina*, indicating possession. From Mendoza, Chile.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Basal innovations intravaginal. Culms 45–90 cm long, 3 -noded. Culm-internodes distally glabrous. Culm-nodes black, glabrous. Leaf-sheaths smooth, glabrous on surface. Leaf-sheath auricles absent. Ligule an eciliate membrane, 0.5 mm long. Leaf-blades 4–25 cm long, 3–6 mm wide, stiff, glaucous. Leaf-blade surface scabrous, rough adaxially. Leaf-blade margins scabrous. Leaf-blade apex attenuate, pungent.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 12–16 cm long, bearing 10–18 fertile spikelets on each. Rhachis ciliate on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, 10–20 mm long. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 5–6 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 2.5–3 mm long, pilose.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume linear, 5–7 mm long, 0.66 length of upper glume, coriaceous, without keels, 1(–3) -veined. Lower glume lateral veins absent or obscure. Lower glume apex acuminate, muticous. Upper glume lanceolate, 8–10 mm long, coriaceous, without keels, 3 -veined. Upper glume apex acuminate, muticous.

Florets. Fertile lemma lanceolate, 12–14 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma surface pubescent. Lemma margins ciliolate. Lemma apex acuminate to setaceously acuminate. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 5–6 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, fusiform, sulcate on hilar side, 7 mm long, hairy at apex. Hilum linear, 1 length of caryopsis.

$2n = 56$ (1 ref TROPICOS).

Distribution (TDWG). Continent. South America.

Country /Province /State. Southern South America. Argentina Northwest.

TDWG4. Mendoza.

Elymus minus (Keng) A.Lvve. *Feddes Repert.* 95: 458 (1984).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 25–30 cm long, 4 -noded. Leaf-sheaths longer than adjacent culm internode, glabrous on surface. Ligule an eciliate membrane, 0.2–0.5 mm long. Leaf-blades conduplicate or involute, 8–10 cm long, 2–4 mm wide. Leaf-blade surface pubescent, hairy on both sides.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, bilateral, 8–9 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, regular, 2 -rowed. Rhachis internodes 4–7 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 10–12 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1–1.5 mm long, pubescent. Floret callus pubescent.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate or oblong, 5–7 mm long, coriaceous, without keels, 3–6 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex entire or with a unilateral tooth, acute, muticous. Upper glume lanceolate or oblong, 6–8 mm long, coriaceous, without keels, 3–6 -veined. Upper glume lateral veins prominent. Upper glume surface scabrous, rough on veins. Upper glume apex entire or with a unilateral tooth, acute, muticous.

Florets. Fertile lemma lanceolate, 8.5 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface puberulous, hairy all along. Lemma apex awned, 1 -awned. Principal lemma awn reflexed, 12 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels ciliolate, adorned above. Palea apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 1.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, hairy at apex, apex unappendaged. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Inner Mongolia, China North-Central.

TDWG4. Hebei, Shanxi.

Elymus multicaulis Kar. & Kir. *Bull. Soc. Imp. Naturalistes Moscou* 14: 868 (1841).

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Hab. in sylvaticis ad torrentem Terekty circa montes Tarbagatai,.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. multus*, many; culmus, stalk. Plants densely caespitose.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms geniculately ascending, 70–90 cm long, 4–5 -noded. Culm-nodes pubescent. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 1 mm long. Leaf-blades 2.5–6 mm wide. Leaf-blade surface pilose, hairy adaxially. Leaf-blade apex attenuate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 15–23 cm long. Rhachis scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15–20 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 5–8 mm long, 0.66–1 length of upper glume, coriaceous, without keels, 3 -veined. Lower glume lateral veins ribbed. Lower glume surface pilose, hairy on veins. Lower glume margins ciliolate. Lower glume apex acuminate. Upper glume lanceolate, 8.5 mm long, 1.1 length of adjacent fertile lemma, coriaceous, without keels, 5 -veined. Upper glume lateral veins ribbed. Upper glume surface pilose, hairy on veins. Upper glume margins ciliolate. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, 7.5 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface pilose. Lemma margins ciliate. Lemma apex acute, awned, 1 -awned. Principal lemma awn 7–25 mm long overall. Palea 1 length of lemma. Palea keels ciliolate, adorned above. Palea surface pubescent. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Siberia, Middle Asia, China. Altay. Kazakhstan, Kirgizistan, Turkmenistan, Tadzhikistan, Uzbekistan.

Elymus multisetus J. G. Smith. *US. Dept. Agric., Div. Agrost., Bull.* 18, 10 (1899).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online (as *Sitanion jubatum*), U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Sitanion multisetum* J.G. Sm., *Bull. Div. Agrostol., U.S.D.A.* 18: 11 (1899)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: IT: *F.V. Coville & F. Funston 1121*, 25 Jun 1891, USA: California: Kern Co. (US-556269).

Recent Synonyms: *Sitanion jubatum* J. G. Smith, *US. Dept. Agric., Div. Agrost., Bull.* 18, 10 (1899).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (317as *Sitanion jubatum*).

Derivation (Clifford & Bostock 2007): *L. jubum*, mane; -ata, possessing. The inflorescence or awn resembles a fox tail.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 25–60 cm long. Leaf-sheath oral hairs lacking. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades 3–6 mm wide. Leaf-blade surface glabrous to hirsute, hairy on both sides.

Inflorescence. Inflorescence composed of racemes, exerted or embraced at base by subtending leaf. Racemes 1, single, oblong, bilateral, 5.5–12 cm long. Rhachis fragile at the nodes. Spikelet packing broadside to rhachis. Rhachis internodes linear, falling with spikelet above. Spikelets ascending, in pairs. Fertile spikelets sessile, 2(–4) in the cluster, heteromorphic (one in each pair with sterile lower floret).

Fertile Spikelets. Spikelets comprising 0–1 basal sterile florets, 1–3 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets, or of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, dorsally compressed, 8–10 mm long, falling entire, deciduous with accessory branch structures, readily shedding fertile florets. Floret callus evident.

Glumes. Glumes collateral, similar, exceeding apex of florets, gaping. Lower glume linear or elliptic, 2–6 mm long, 1 length of upper glume, coriaceous, 3–9 -veined. Lower glume apex dentate, 3–9 -fid, awned, 3–9 -awned (unequally), awn 25–100 mm long. Upper glume linear or elliptic, 2–6 mm long, coriaceous, 3–9 -veined. Upper glume apex dentate, 3–9 -fid, awned, 3–9 -awned (unequally), awn 25–100 mm long.

Florets. Basal sterile florets absent or 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, linear or oblong, 2–6 mm long, coriaceous, dentate, 2–3 -fid, awned (2–3 awned). Awn of lower sterile floret 25–100 mm long. Fertile lemma lanceolate, 8–10 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface smooth or scabrous, rough above. Lemma apex dentate, 2 -fid, awned, 3 -awned. Principal lemma awn from a sinus, 30–100 mm long overall. Lateral lemma awns present, arising on apex of lobes, 1–20 mm long, shorter than principal. Palea coriaceous. Palea keels scabrous. Palea apex with excurrent keel veins. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Ovary with a fleshy appendage below style insertion, pubescent on apex.

$2n = 28$ (2 refs TROPICOS).

Distribution (TDWG). Continent. North America.

Country /Province /State. Northwest USA, Southwestern USA. Colorado, Oregon, Washington. Arizona, California, Nevada, Utah.

Elymus mutabilis (Drobov) Tsvelev. *Akad. Nauk SSSR Bot. Inst. Komarova, Rast. Tsentral. Azii, Fasc.* 4, 21 (1968).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *Agropyron*), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Agropyron mutabile* Drobov, *Trudy Bot. Muz. Imp. Akad. Nauk* 16: 88, pl. 9, f. 3–4 (1916)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Russia: Siberia:.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. changeable*. Variable in accord with the season or habitat.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 70–120 cm long. Ligule an eciliate membrane. Leaf-blades 10–25 cm long, 8–12 mm wide. Leaf-blade surface scabrous, glabrous or pilose, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 6–15 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, crowded. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets elliptic to oblong, laterally compressed, 6–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume linear or lanceolate, 7–10 mm long, 1 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous, rough on veins. Lower glume apex acute, mucronate or awned, 1 -awned, awn 0.2–2 mm long. Upper glume lanceolate or oblong, 7–10 mm long, 0.7–0.8 length of adjacent fertile lemma, coriaceous, without keels, 3–5 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous, rough on veins. Upper glume apex acute, mucronate or awned, 1 -awned, awn 0.2–2 mm long.

Florets. Fertile lemma lanceolate, 9–12 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma surface scaberulous, rough generally. Lemma apex acute, awned, 1 -awned. Principal lemma awn 2–4 mm long overall. Palea 0.8–0.9 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3, 2–2.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (3 refs TROPICOS).

Distribution (TDWG). Continent. Europe, Temperate Asia, Tropical Asia.

Region. Northern Europe, Eastern Europe.

Country /Province /State. : Finland, Norway, Sweden. Central European Russia, East European Russia, North European Russia, South European Russia. Siberia, Russian far east, **Middle Asia, Caucasus, Western Asia, China, Mongolia, Russia.** Buryatiya, Chita, Irkutsk, Krasnoyarsk, Tuva. Kamchatka, Magadan. Kazakhstan, Turkmenistan. Iran. Xinjiang. Mongolia. **Indian Subcontinent.** Pakistan.

TDWG4.

Elymus nakaii (Kitagawa) A.Löve. Feddes *Repert.*, 95: 454 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from Korea. **Basionym or Replaced Name:** *Roegneria nakaii* Kitag., *Rep. Inst. Sci. Res. Manchoukuo* 5(5): 151–152 (1941). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: "Korea sept.: Prov. Kan-nan: inter Jimmujiyo et Muto-ho in monte Chang-pai-shan", 8 Aug 1914, *T. Nakai s.n.* ("Herb. Tokyo" ?= TI).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 566).

Derivation (Clifford & Bostock 2007): In honor of Takenoshin Nakai (1882–1952) Japanese botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms erect or geniculately ascending, 50–100 cm long. Culm-nodes glabrous or pubescent. Leaf-sheaths glabrous on surface or pubescent, with reflexed hairs. Ligule an eciliate membrane. Leaf-blades 11–20 cm long, 4–7 mm wide. Leaf-blade surface pilose, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight, bilateral, 10–13 cm long. Rhachis flattened. Spikelet packing broadside to rachis. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 14–16 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes persistent, similar. Lower glume lanceolate, 9–10 mm long, 0.9 length of upper glume, coriaceous, without keels, 3–7 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acuminate. Upper glume oblong or ovate, 9.5–11.5 mm long, 1 length of adjacent fertile lemma, coriaceous, without keels, 3–7 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, 10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface pubescent, hairy on veins. Lemma margins pubescent. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn curved, reflexed, 18–22 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels tuberculate. Palea surface puberulous, hairy on back, hairy above. Palea apex emarginate to obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, yellow. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. **China, Eastern Asia.** Inner Mongolia, Manchuria, China North-Central. Korea.

TDWG4. Hebei.

Elymus nepalensis (A. Melderis) A. Melderis. *Enum. Fl. Pl. Nepal*, 1: 131 (1978).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *Agropyron*).

TYPE from Nepal. **Basionym or Replaced Name:** *Agropyron nepalense* Melderis, *Grass. Burma, Ceylon, India & Pakistan* 692 (1960)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Nepal: Lumsa, N.W. of Jumla, open slopes, 9500 ft., 10 Aug 1952, *O. Polunin, W. R. Sykes & L. H. J. Williams 5111* (HT: BR).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From Nepal.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous to pubescent. Culms erect, 60–70 cm long. Culm-internodes antrorsely scabrous, distally pubescent. Culm-nodes pubescent. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, lacerate, obtuse. Leaf-blades 10–17 cm long, 1–6 mm wide, mid-green. Leaf-blade surface scabrous, rough adaxially, glabrous or pilose, sparsely hairy, hairy on both sides. Leaf-blade margins scabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 6–12 cm long. Rhachis flattened, puberulous on surface, scabrous on margins, ciliate on margins. Spikelet packing broadside to rhachis, lax. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate or oblong, laterally compressed, 12–15 mm long, falling entire. Spikelet callus base truncate. Rhachilla internodes pubescent.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 4–5.5 mm long, 0.75 length of upper glume, coriaceous, much thinner on margins, without keels, 3–5 -veined. Lower glume surface puberulous, hairy on veins. Lower glume apex acute or acuminate. Upper glume lanceolate, 5.5–8 mm long, 0.66–0.9 length of adjacent fertile lemma, coriaceous, with scarious margins, without keels, 3–5 -veined. Upper glume surface puberulous, hairy on veins. Upper glume apex acute or acuminate.

Florets. Fertile lemma lanceolate, 8–9 mm long, coriaceous, mid-green or mid-green or purple, suffused with last colour, keeled, keeled above, 5 -veined, more than 3-veined. Lemma surface puberulous. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn straight, 10–20 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels ciliolate, adorned above. Palea surface puberulous, hairy on back. Palea apex emarginate or truncate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2–2.5 mm long, yellow or purple. Stigmas 2. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent. Nepal.

Elymus nevskii Tsvelev. *Sched. Herb. Fl. URSS*, 18: 29 (1970).

Regarded by K as a synonym (*E. dentatus*).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from Turkmenistan. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: : Based on *Agropyron ugamicum* ; Turkmenistan: Syr-darja. Distr. Taschkent. Ad fl. Ugam, 1921, *Uranov 1313* (HT: ?) and Barannov. 376 & 378, 1921.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Sergei Arseniyevich Nevsky (1908–1938) Russian agrostologist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms erect or geniculately ascending, 20–50 cm long. Culm-internodes distally pubescent. Leaf-sheaths pubescent, outer margin hairy. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades filiform, convolute, 1–2 mm wide. Leaf-blade surface pubescent, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, bilateral, 3–8 cm long. Rhachis flattened, glabrous on surface, scabrous on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear, 10–13 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–14 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes glabrous.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 5 mm long, 0.75 length of upper glume, coriaceous, without keels, 5 -veined. Lower glume apex acuminate. Upper glume lanceolate, 6–7 mm long, 0.66–0.75 length of adjacent fertile lemma, coriaceous, without keels, 5 -veined. Upper glume apex acuminate.

Florets. Fertile lemma oblong, 9–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface asperulous, rough above. Lemma apex acute, awned, 1 -awned. Principal lemma awn 1–1.5 mm long overall. Palea 1 length of lemma. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 5–6 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (2 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Middle Asia, China, Russia. Kazakhstan, Kirgizistan, Turkmenistan, Uzbekistan. Xinjiang.

Elymus nipponicus Jaaska. *Izv. Akad. Nauk Estonsk. SSR, Ser. Biol.* 23 (1): 6 (1974).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Eastern Asia. Japan. Japan Hokkaido, or Honshu.

Elymus nodosus (Nevski) A. Melderis. *Bot. J. Linn. Soc.*, 76(4): 376 (1978).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983) (as *Elytrigia caespitosa*).

TYPE from Russia. **Basionym or Replaced Name:** *Agropyron nodosum* Nevski, Komarov, *Fl. URSS*, 2: 646 (1934). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Russia, Crimea: Steven (LE holo).

Recent Synonyms: *Elytrigia caespitosa* (K. Koch) Nevski, *Acta Univ. As. Med. Ser.* 8 b, *Bot. Fasc.* 17, 61 (1934). *Agropyron caespitosum* C. Koch, *Linnaea*, 21: 424. (1848).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. nodus*, knot; -osa, abundance. Culm nodes swollen.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 40–60 cm long. Leaf-sheaths outer margin glabrous or hairy. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades flat or involute, 12–20 cm long, 2–3 mm wide, glaucous. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 6–13 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes oblong, 10–12 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–18 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume oblong, 6–8 mm long, 0.75–0.9 length of upper glume, coriaceous, without keels, 5–7 -veined. Lower glume lateral veins ribbed. Lower glume apex truncate or obtuse. Upper glume oblong, 8–9 mm long, 0.9 length of adjacent fertile lemma, coriaceous, without keels, 5–7 -veined. Upper glume lateral veins ribbed. Upper glume surface smooth. Upper glume apex truncate or obtuse.

Florets. Fertile lemma lanceolate or oblong, 8.5–10 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma surface smooth. Lemma apex apiculate, muticous. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3, 3–4 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$.

Distribution (TDWG). Continent. Europe, Temperate Asia, Tropical Asia.

Region. Southwestern Europe, Eastern Europe.

Country /Province /State. : Corsica. Krym. Middle Asia, Caucasus, Western Asia. Tadzhikistan. Iran. Indian Subcontinent. Pakistan.

TDWG4.

Elymus (Roegneria) nuristanicus (Ohwi) FORSAN. (1999).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Afghanistan. **Basionym or Replaced Name:** *Roegneria nuristanica* Ohwi, *Acta Phytotax. & Geobot., Kyoto*, 17: 14 (1957). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Afghanistan, Seprigal to Voma: Kitamura 177.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ica, belonging to. From Nuristan, Afghanistan.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Butt sheaths persistent and investing base of culm, with soft dead sheaths. Culms geniculately ascending, 50–60 cm long, 3–4 -noded. Culm-internodes smooth, distally glabrous. Leaf-sheaths 15 cm long, mostly shorter than adjacent culm internode. Leaf-sheath auricles absent or falcate. Ligule an eciliate membrane. Leaf-blades involute, 10–15 cm long, 2–3 mm wide, firm, light green. Leaf-blade surface smooth, glabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 15 cm long, bearing 7–8 fertile spikelets on each. Rhachis flattened. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 17–20 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, 13 mm long, 0.9 length of upper glume, coriaceous, without keels, 7 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous. Lower glume apex attenuate. Upper glume lanceolate, 15 mm long, 1.1 length of adjacent fertile lemma, coriaceous, without keels, 7 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous. Upper glume apex attenuate.

Florets. Fertile lemma elliptic, 12–13 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scabrous. Lemma apex attenuate, awned, 1 -awned. Principal lemma awn 20–25 mm long overall. Palea 1 length of lemma. Palea keels scabrous, adorned above. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Western Asia. Afghanistan.

Elymus nutans Griseb. *Goett. Nachr.* 72 (1868).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Himalaya. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: "West Himalaya": Garhwal: from Ghastoli N of Badrinath up the Sarsutti Valley do Deo Tal on S foot of Mana Pass, 3–5 Sept. 1855, *Schlagintweit 9158* (CT: LE) based on Hooker's missapplication of *E. sibiricus* L. [IGS].

Illustrations (Books): H.J.Noltie, *The Grasses of Bhutan* (2000) (631, Fig. 29), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 559).

Derivation (Clifford & Bostock 2007): L. nuto, nod. Inflorescence branches slender, bending under the weight of the spikelets.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 25–110 cm long. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades 6–20 cm long, 1.5–5 mm wide. Leaf-blade surface smooth or scaberulous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, arcuate or flexuous, bilateral, 5–15 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Spikelets in pairs. Fertile spikelets pedicelled, 2(–3) in the cluster. Pedicels present.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate or elliptic, 4–9 mm long, 1 length of upper glume, coriaceous, without keels, 1–3 -veined. Lower glume lateral veins ribbed. Lower glume apex acute, muticous or awned, 1 -awned, awn 0.5–2 mm long. Upper glume lanceolate or elliptic, 4–9 mm long,

0.5–0.8 length of adjacent fertile lemma, coriaceous, without keels, 1–3 -veined. Upper glume lateral veins ribbed. Upper glume apex acute, muticous or awned, 1 -awned, awn 0.5–2 mm long.

Florets. Fertile lemma lanceolate, 8–11 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma surface scabrous, glabrous or pubescent. Lemma apex acute, awned, 1 -awned. Principal lemma awn flexuous, 15–30 mm long overall. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$N = 21$ (1 ref TROPICOS). $2n = 28$ (1 ref TROPICOS), or 42 (7 refs TROPICOS).

Distribution (TDWG). **Continent.** Europe (*), Temperate Asia, Tropical Asia.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Middle Asia, Western Asia, China, Mongolia, Eastern Asia.** Kazakhstan, Turkmenistan. Iran, Iraq. China South Central, Inner Mongolia, China North-Central, Qinghai, China Southeast, Tibet, Xinjiang. Mongolia. Japan. **Indian Subcontinent.** Eastern Himalaya, India, Nepal, Pakistan, West Himalaya.

TDWG4. Gansu, Hebei, Shaanxi. Henan. Sichuan, Yunnan. Bhutan, Sikkim. Himachal Pradesh, Jammu Kashmir.

Elymus panormitanus (Parl.) Tsvelev. *Sched. Herb. Fl. URSS*, 18: 27 (1970).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Sicily. **Basionym or Replaced Name:** *Agropyron panormitanum* Parl., *Pl. Rar. Sic.* 2: 20 (1840)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Sicily, Moarta: Parlatores.

Illustrations (Books): N.Feinbrun-Dothan, *Flora Palaestina* 4 (1986) (Pl 201), N.L.Bor, *Gramineae in Flora of Iraq* (1968) (217, Pl. 72 as *Agropyron*).

Derivation (Clifford & Bostock 2007): L. -ana, indicating location. From Panormus, now Palermo, Sicily.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 65–90 cm long. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades flat or involute, 2.5–5 mm wide. Leaf-blade surface scabrous, rough adaxially, glabrous or pilose, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight or arcuate, bilateral, 10–20 cm long. Rhachis flattened. Spikelet packing broadside to rhachis, lax. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15–20 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 15–18 mm long, 1 length of upper glume, coriaceous, without keels, 7–9 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous, rough on veins. Lower glume apex acute, awned, 1 -awned, awn 1–3 mm long. Upper glume lanceolate, 15–18 mm long, 1.5–1.6 length of adjacent fertile lemma, coriaceous, without keels, 7–9 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous, rough on veins. Upper glume apex acute, awned, 1 -awned, awn 1–3 mm long.

Florets. Fertile lemma lanceolate to oblong, 9–12 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma surface scabrous, rough above. Lemma apex acute, awned, 1 -awned. Principal lemma awn 20–35 mm long overall. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (6 refs TROPICOS).

Distribution (TDWG). **Continent.** Europe, Africa, Temperate Asia.

Region. Southwestern Europe, Southeastern Europe, Eastern Europe.

Country /Province /State. : Spain. : Greece, Italy, Crete, Romania, Sicily, Yugoslavia. Krym. **Northern Africa.** Algeria, Morocco, Tunisia. **Western Asia.** Iran.

TDWG4.

Elymus patagonicus Speg. *Rev. Agron. La Plata*, 1897, 630 (1897).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Argentina. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *Spegazzini s.n.* (*Herb. Spegazzini 2481*), Argentina: in pratis editoribus Rmo Carren-leonfz (LP (right-hand specimen on the sheet marked with an A; ILT: LP, BAA). LT designated by Seberg & Petersen, *Bot Jahr. Syst.* 120: 532 (1998).

ST: *C. Moyano s.n.*, 1889, Argentina

ST: *E. Fischer.*

Illustrations (Books): M.N.Correa, *Flora Patagonica* Parte III, Gramineae (1978) (444, Fig. 296).

Derivation (Clifford & Bostock 2007): L. -ica, belonging to. From Patagonia.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Basal innovations extravaginal or intravaginal. Culms erect or geniculately ascending, 60–150 cm long, 4–6 -noded. Leaf-sheaths glabrous on surface or puberulous. Ligule an eciliate membrane, 1–1.5 mm long, truncate. Leaf-blades flat or conduplicate or convolute, 15–35 cm long, 3–5 mm wide. Leaf-blade surface pubescent, hairy adaxially or on both sides. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 6–11 cm long. Rhachis tough or fragile at the nodes, glabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, 3–4.5 mm long, falling with spikelet above (when fragile). Rhachis internode tip flat. Spikelets in threes. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 8–10 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume linear, 4–6 mm long, 1 length of upper glume, coriaceous, without keels, 1–2 -veined. Lower glume primary vein scabrous. Lower glume apex acute, awned, 1 -awned, awn 2–3 mm long. Upper glume linear, 4–6 mm long, 0.5–0.66 length of adjacent fertile lemma, coriaceous, without keels, 3 -veined. Upper glume primary vein scabrous. Upper glume apex acute, awned, 1 -awned, awn 2–3 mm long.

Florets. Fertile lemma lanceolate, 7–9 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma apex attenuate, awned, 1 -awned. Principal lemma awn 2–3 mm long overall. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2.5–3 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, 4–4.5 mm long, dark brown.

$2n = 28$ (1 ref TROPICOS), or 42 (2 refs TROPICOS).

Distribution (TDWG). Continent. South America.

Country /Province /State. Southern South America. Argentina South, Chile South.

TDWG4. Mendoza. Chubut, Neuquén, Santa Cruz, Tierra del Fuego. Chiloe, Aisen, Magellanes. Aisen, Magellanes.

Elymus pendulinus (Nevski) Tsvelev. *Akad. Nauk SSSR Bot. Inst. Komarova, Rast. Tsentral. Azii, Fasc.* 4, 21 (1968).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Roegneria pendulina* Nevski, *Fl. URSS* 2: 616–617, pl. 45, f. 6 (1934)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Russia: Siberia:.

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 590/600/601/602 as *Elymus pendulinus* ssp. *pendulinus* & *E. pendulinus* ssp. *multiculmus* & *E. pendulinus* ssp. *pubicaulis*).

Derivation (Clifford & Bostock 2007): L. pendeo, hang down; -ula, tending towards; -ina, resemblance. Panicle branches drooping.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Culms 70–110 cm long. Ligule an eciliate membrane. Leaf-blades 6–10 mm wide, flaccid. Leaf-blade surface scabrous, rough on both sides, glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 15–22 cm long. Rhachis flattened, puberulous on surface. Spikelet packing broadside to rhachis. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 13–20 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 6–9 mm long, 1 length of upper glume, coriaceous, without keels, 5 -veined. Lower glume surface scabrous. Lower glume apex setaceously acuminate. Upper glume lanceolate, 6–9 mm long, 0.75–0.9 length of adjacent fertile lemma, coriaceous, without keels, 5 -veined. Upper glume surface scabrous. Upper glume apex setaceously acuminate.

Florets. Fertile lemma lanceolate, 8–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface pubescent, hairy above. Lemma margins ciliate, hairy above. Lemma apex acute, awned, 1 -awned. Principal lemma awn 15–23 mm long overall. Palea 1 length of lemma. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (9 refs TROPICOS), or 42 (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Siberia, Russian far east, **China, Mongolia, Eastern Asia, Russia.** Altay, Buryatiya, Chita, Irkutsk, Tuva. Primorye. China South Central, Inner Mongolia, Manchuria, China North-Central, Qinghai, China Southeast. Mongolia. Japan, Korea.

TDWG4. Gansu, Hebei, Shaanxi, Shandong, Shanxi. Henan. Sichuan, Yunnan.

Elymus pilosus (K. Presl) A. Love. *Feddes Repert.* 95: 472 (1984).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

Basionym or Replaced Name: *Agropyron pilosum* J. Presl, *Reliq. Haenk.* 1(4–5): 267 (1830)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: T: Seberg & Peterson, *Bot. Jahr. Syst.* 120: 537 (1998), indicate the type is not at PR.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. pilus*, a hair; -osa, abundance.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Distribution (TDWG). Continent. North America.

Country /Province /State. Subarctic America, **Western Canada, Eastern Canada, Northwest USA, North-central USA, Northeast USA, Southwestern USA, Southeastern USA, Mexico.** Alaska. Alberta, British Columbia, Manitoba, Saskatchewan. Ontario. Colorado, Idaho, Montana, Washington, Wyoming. Iowa, Minnesota, South Dakota. Michigan. Arizona, California, Nevada, Utah. Arkansas. Southwest Mexico.

Guerrero, Michoacan.

Elymus platyphyllus (Keng & Chen) A.Löve. *Feddes Repert.*, 95: 456 (1984).

Accepted by: S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria platyphylla* Keng ex Keng & S.L. Chen, *Acta Univ. Nankin. Sci. Nat.* 1963(1): 35 (1963)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Xinjiang:, *Shawan* 16 (HT: PE).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *Gk platys*, flat; *phyllon*, leaf. Leaf-blade broad.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. **China.** Xinjiang.

Elymus praeruptus Tsvelev. *Novosti Sist. Vyssh. Rast.*, 9: 61 (1972).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Agropyron interruptum* Nevski, *Izv. Bot. Sada Akad. Nauk SSSR* 30: 632 (1931)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: : Based on *Agropyron interruptum*; Russia, Samarkand: Fedtschenko 183.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. praerumpo*, break off. Inflorescence readily disarticulating.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 60–95 cm long. Culm-nodes glabrous or pubescent. Ligule an eciliate membrane. Leaf-blades involute, 2–4 mm wide, glaucous. Leaf-blade surface ribbed, puberulous, hairy adaxially or on both sides.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 9–13 cm long. Rhachis smooth on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear, 10–20 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes smooth. Floret callus pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 10–15 mm long, 1 length of upper glume, coriaceous, without keels, 7 -veined. Lower glume surface smooth or asperulous, rough on veins. Lower glume apex entire or with a unilateral tooth, acute, mucronate. Upper glume lanceolate, 10–15 mm long, 1 length of adjacent fertile lemma, coriaceous, without keels, 7 -veined. Upper glume surface smooth or asperulous, rough on veins. Upper glume apex entire or with a unilateral tooth, acute, mucronate.

Florets. Fertile lemma lanceolate, 10–12 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scabrous. Lemma apex dentate, 2 -fid, acute, awned, 1 -awned. Principal lemma awn from a sinus, spreading, 20–25 mm long overall. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 3–4.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (1 ref TROPICOS).

Distribution (TDWG), Continent. Temperate Asia.

Country /Province /State. Middle Asia. Turkmenistan.

TDWG4.

Elymus pringlei Scribn. & Merr. *Bull. Div. Agrostol., U.S.D.A.* 24: 30 (1901).

Regarded by K as a synonym (*E. trachycaulus*).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mexico. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *C.G. Pringle 6639*, 8 Jun 1897, Mexico: Hidalgo: in wet soil in a valley near Tula, alt. 6800 ft (US-316873; IT: MO-2965344, MO-2965345, US-821787). The collecting number was erroneously cited as 6637 in the protologue. The holotype at US is numbered 6639, as are two MO isotypes..

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 24 Poaceae*, part 1 (2007) (313).

Derivation (Clifford & Bostock 2007): in honor of Cyrus Guernsey Pringle (1838–1911) United States botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Distribution (TDWG), Continent. North America.

Country /Province /State. Mexico. Northeast Mexico, Gulf (Mexico).

TDWG4. Mexico State, Puebla. Coahuila, Hidalgo, Neuvo Leon, Queretaro, San Luis Potosi. Veracruz.

Elymus pseudocaninus (Cai) Zhu & Chen. *Fl. China* 22: 414 (2006).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Elymus altaicus* D.F. Cui, *Bull. Bot. Res., Harbin* 10(3): 28–29, f. 4 (1990). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Xinjiang: Altai, in pratis et sylvis montium, 25 July 1972, A721154 (HT: XJA-1AC).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 575).

Derivation (Clifford & Bostock 2007): Gk *pseudos*, false. Resembling *Elymus caninus*..

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms erect, 50–75 cm long, 3-noded. Culm-internodes distally glabrous. Culm-nodes purple. Leaf-sheaths smooth, glabrous on surface. Ligule an eciliate membrane, 1 mm long. Leaf-blades involute, 10–18 cm long, 2–3.5 mm wide. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, unilateral or bilateral, 8–9 cm long. Rhachis flattened, smooth on surface, ciliate on margins. Spikelet packing broadside to rhachis. Rhachis internodes 7–9 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 13–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 2 mm long, pubescent. Floret callus pubescent.

Glumes. Glumes persistent, similar. Lower glume lanceolate, 9–11 mm long, coriaceous, without keels, 5-veined. Lower glume apex acuminate. Upper glume lanceolate, 9–11 mm long, coriaceous, with membranous margins, without keels, 5-veined. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, 10–12 mm long, coriaceous, purple, 5-veined, more than 3-veined. Lemma surface puberulous. Lemma apex acuminate, awned, 1-awned. Principal lemma awn curved, 14–18 mm long overall. Palea 1 length of lemma, 2-veined. Palea keels ciliate, adorned above. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 2.5 mm long, yellow.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Xinjiang.

Elymus puberulus (Keng ex Keng & S.L. Chen) S.L. Chen. *Fl. China* 22: 424 (2006).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria puberula* Keng ex Keng & S.L. Chen, *Acta Univ. Nankin. Sci. Nat.* 1963(1): 20 (1963)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Sichuan: Nanchuan, mountain slopes, *Y.Y. Ho 5058* (HT: JSBI).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 586 & Fig. 593).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 60 cm long, 1–1.5 mm diam., 4–5-noded, with 0.5 of their length below uppermost node. Culm-nodes glabrous. Leaf-sheaths 8.3–10.6 cm long, mostly shorter than adjacent culm internode, glabrous on surface or puberulous. Ligule an eciliate membrane, 0.3 mm long, scarious, entire or erose, truncate. Leaf-blades 15–22 cm long, 5–7 mm wide, glaucous. Leaf-blade surface puberulous, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 8–11 cm long. Rhachis flattened. Spikelet packing broadside to rhachis, regular, 2-rowed. Rhachis internodes 10(–16) mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 12 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 2–2.5 mm long, pubescent. Floret callus pubescent. Floret callus hairs 0.3–0.3 mm long.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate or oblong, 4.5–6 mm long, coriaceous, without keels, 3–5-veined. Lower glume apex obtuse, muticous. Upper glume lanceolate or oblong, 5.5–7 mm long, coriaceous, without keels, 5-veined. Upper glume apex acute, muticous.

Florets. Fertile lemma lanceolate, 8.5–9 mm long, coriaceous, without keel, 5-veined, more than 3-veined. Lemma surface smooth or scaberulous. Lemma apex awned, 1-awned. Principal lemma awn straight, 17–23 mm long overall. Palea 0.9 length of lemma, 2-veined. Palea keels smooth or scaberulous, adorned above. Palea apex emarginate or obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 1.4 mm long, yellow. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, hairy at apex, apex unappendaged. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central.

TDWG4. Chongqing.

Elymus pulanensis (H.L. Yang) S.L. Chen. *Bull. Nanjing Bot. Gard. Mem. Sun Yat Sen*, 1987: 9 (1988).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria pulanensis* H.L. Yang, *Acta Phytotax. Sin.*, 18(2): 253 (1980). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China, Tibet, Pulan: Qinghai-Xizang Exped. 76–8466.

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 573).

Derivation (Clifford & Bostock 2007): *L. -ensis*, denoting origin. From Pulan, Xizang, China.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Culms 30–50 cm long, 3–4 -noded. Leaf-sheaths mostly shorter than adjacent culm internode, smooth. Ligule an eciliate membrane, 0.5 mm long, truncate. Leaf-blades flat or involute, 7–10 cm long, 1.5–3 mm wide. Leaf-blade surface smooth or scaberulous, glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, arcuate, bilateral, 8–10 cm long, bearing few fertile spikelets, bearing 5–8 fertile spikelets on each. Rhachis flattened, smooth on surface, glabrous on surface, smooth on margins. Spikelet packing broadside to rhachis. Rhachis internodes oblong, 14–20 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 7–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 22–26 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate or oblong, 4.5–5 mm long, 0.7–0.9 length of upper glume, coriaceous, much thinner on margins, without keels, 3–5 -veined. Lower glume apex acuminate, awned, 1 -awned, awn (1–)1.5–5(–7) mm long. Upper glume lanceolate or oblong, 5–7 mm long, 0.5–0.6 length of adjacent fertile lemma, coriaceous, with membranous margins, without keels, 3–5 -veined. Upper glume apex acuminate, awned, 1 -awned, awn (1–)1.5–5(–7) mm long.

Florets. Fertile lemma lanceolate, 11 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface glabrous or hispidulous. Lemma apex acute, awned, 1 -awned. Principal lemma awn curved, reflexed, 30–40 mm long overall. Palea 1 length of lemma. Palea keels ciliolate, adorned above. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3, 5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central, Tibet.

TDWG4. Yunnan.

Elymus purpuraristatus C.P. Wang & H.L. Yang. *Bull. Bot. Res., Harbin* 4(4): 83–84, f. 1 (1984).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, U. Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Nei Monggol: Daqing Shan, in pratis clivorum, 6 Aug. 1965, C.P. Wang 278 (HT: NMAC).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. purpureus*, purple; *arista*, bristle; *-ata*, possessing. Glumes are purple in color.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Butt sheaths purple. Culms erect, 160 cm long, 1.5–3.5 mm diam. Leaf-sheaths mostly shorter than adjacent culm internode. Ligule an eciliate membrane, 1 mm long, obtuse. Leaf-blades 15–25 cm long, 2.5–4 mm wide. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight or arcuate, bilateral, 8–15 cm long, 4–6 mm wide. Spikelet packing broadside to rhachis, 2 -rowed. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–12 mm long, breaking up at maturity, disarticulating below each fertile floret. Spikelet callus base truncate. Rhachilla internodes 1.5–2 mm long, pubescent.

Glumes. Glumes similar, subequal in width, shorter than spikelet. Lower glume linear or lanceolate, 7–10 mm long, 1 length of upper glume, coriaceous, purple, without keels, 3 -veined. Lower glume surface pilose, hairy on veins. Lower glume apex acute, awned, 1 -awned, awn 1 mm long. Upper glume linear or lanceolate,

7–10 mm long, 1.1–1.2 length of adjacent fertile lemma, coriaceous, purple, without keels, 3 -veined. Upper glume surface pilose, hairy on veins. Upper glume apex acute, awned, 1 -awned, awn 1 mm long.

Florets. Fertile lemma lanceolate to oblong, 6–9 mm long, coriaceous, purple, 5 -veined, more than 3-veined. Lemma surface pilose, hairy above or at base. Lemma margins ciliate. Lemma apex acute, awned, 1 -awned. Principal lemma awn 7–15 mm long overall, limb puberulous. Palea 1 length of lemma. Palea surface pubescent, hairy on back, hairy below. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp. Hilum linear.

$2n = 42$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Inner Mongolia.

TDWG4.

Elymus purpurascens (Keng ex Keng & S.L. Chen) S.L. Chen. *Fl. China* 22: 417 (2006).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria purpurascens* Keng ex Keng & S.L. Chen, *Acta Univ. Nankin. Sci. Nat.* 1963(1): 56 (1963)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Gansu: Longde, mountain slopes, 18 July 1942, *T.P. Wang 13213* (HT: NJU).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 581).

Derivation (Clifford & Bostock 2007): *L. purpurasco*, become purple. Inflorescences or foliage reddish-purple.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, culms solitary or caespitose, clumped loosely. Roots woolly. Culms erect, 60–90 cm long, 1.5–2 mm diam., 3–4 -noded. Culm-internodes smooth. Leaf-sheaths loose, smooth, glabrous on surface. Ligule an eciliate membrane, 0.5 mm long, membranous, truncate. Leaf-blades involute, 13–22 cm long, 3–6 mm wide, stiff. Leaf-blade surface smooth or scaberulous, rough adaxially, puberulous, hairy adaxially. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 15–15 cm long, bearing 6–13 fertile spikelets on each. Rhachis flattened, scabrous on margins, glabrous on margins or ciliate on margins. Spikelet packing broadside to rhachis, regular, 2 -rowed. Rhachis internodes 10–20(–23) mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 15–23 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 2 mm long, pubescent. Floret callus pubescent. Floret callus hairs 0.5 mm long.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate or oblong, 5–8 mm long, coriaceous, without keels, 3–5 -veined. Lower glume apex acute, muticous. Upper glume lanceolate or oblong, 5–8 mm long, coriaceous, without keels, 5 -veined. Upper glume apex acute, muticous.

Florets. Fertile lemma lanceolate, 9–11 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface scabrous, inner surface pilose. Lemma apex awned, 1 -awned. Principal lemma awn 18–28 mm long overall. Palea 2 -veined. Palea keels ciliolate, adorned above, with 0.33 of their length adorned. Palea surface puberulous, hairy on back. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, hairy at apex, apex unappendaged. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central, Inner Mongolia, China North-Central, Qinghai.

TDWG4. Gansu. Yunnan.

Elymus reflexiaristatus (Nevski) A. Melderis. *Bot. J. Linn. Soc.*, 76(4): 375 (1978).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983) (as *Elytrigia strigosa*).

Basionym or Replaced Name: *Agropyron reflexiaristatum* Nevski, *Izv. Imp. S.-Peterburgsk. Bot. Sada* 30: 490, in obs, 495 (1932)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: (LE (2 sheets)).

HT: *Lessing s.n.*, s.d., European Russia: [S Urals]: Montes Ilmensis (LE). Orig. label: "Montes Ilmensis,...".

Recent Synonyms: *Elytrigia strigosa* (Schult.) Nevski, *Acta Inst. Bot. Acad. Sc. URSS, Ser 1. Fasc. 2*, 77 (1936).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. reflexa*, bent sharply backwards; arista, bristle; -ata, possessing. Awn bent backwards.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 50–60 cm long. Leaf-sheaths outer margin glabrous. Ligule an eciliate membrane. Leaf-blades involute, 1–3 mm wide, glaucous. Leaf-blade surface puberulous, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 7.5–12 cm long. Rhachis flattened, scaberulous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, 10–12 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 11–13 mm long, 2–4 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes glabrous.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 6–9 mm long, 1 length of upper glume, coriaceous, without keels, 5–7 -veined. Lower glume apex acute. Upper glume lanceolate, 6–9 mm long, 1 length of adjacent fertile lemma, coriaceous, without keels, 5–7 -veined. Upper glume apex acute.

Florets. Fertile lemma lanceolate, 7.5–9 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma apex acute, awned, 1 -awned. Principal lemma awn spreading, 10–17 mm long overall. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Europe, Temperate Asia.

Region. Eastern Europe.

Country /Province /State. Krym, Central European Russia, East European Russia, North European Russia, South European Russia. Siberia, Russian far east, **Middle Asia, China, Mongolia.** Buryatiya, Chita, Irkutsk, Krasnoyarsk, Tuva. Amur, Khabarovsk, Magadan. Kazakhstan, Turkmenistan.

TDWG4.

Elymus repens (L.) Gould. *Madrono*, 9: 127 (1947).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006) (as *Agropyron*), D.Sharp, D. & B.K.Simon, *AusGrass* (2002) (as *Elytrigia*), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000) (as *Elytrigia*), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006) (as *Elytrigia*), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *Agropyron*), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983) (as *Elytrigia*), T.Koyama, *Grasses of Japan and its neighboring regions* (1987) (as *Agropyron*), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

Basionym or Replaced Name: *Triticum repens* L., *Sp. Pl.* 1: 86 (1753)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: (LINN-104.7). LT designated by Bowden, *Canad. J. Bot.* 43: 1431 (1965); cited by Assadi, *Willdenowia* 26: 267 (1996).

ST: *van Royen s.n.*, (L).

Recent Synonyms: *Elytrigia repens* (L.) Nevski, *Acta Inst. Bot. Acad. Sci. URSS*, Ser. 1, Fasc. 1, 14 (1933).

Illustrations (Books): C.E.Hubbard, *Grasses* (1968) (98 as *Agropyron repens*), G.Hegi, *Flora von Mitteleuropa* 1 (1909) (as *Agriopyrum repens*), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (as *Elytrigia repens*), N.N.Tsvelev, *Grasses of the Soviet Union* (1983) (199 (139), Pl.2, as *Elytrigia repens*), N.L.Bor, *Gramineae* in K.H.Rechinger, *Flora Iranica*. No. 70/30 (1970) (Tab. 25 as *Agropyron elongatifforme*), N.L.Bor, *Gramineae* in *Flora of Iraq* (1968) (215, Pl. 71 & 221, Pl. 74 as *Agropyron elongatifforme* & *A. repens*), T.A.Cope, *Flora of Pakistan* 143: *Poaceae* (1982) (625, Fig 73), H.J.Noltie, *The Grasses of Bhutan* (2000) (631, Fig. 29), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (as *Elytrigia repens*), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler, *Grasses of New South Wales*, 4th edn (2008) (238), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrata Catarinensis Gramineae* (1981–1982) (301, Fig. 67 as *Agropyron repens*), M.N.Correa, *Flora Patagonica* Parte III, *Gramineae* (1978) (454, Fig. 304 as *Agropyron repens*), K.F.Best, et al, *Prairie Grasses* (1971) (39 as *Agropyron*), E.Hafliger & E.Schultz, *Grass Weeds*, CIBA-GEIGY (2:6(1980) as *Agropyron*).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002); (as *Elytrigia*).

Derivation (Clifford & Bostock 2007): L. repo, crawl. Rhizome well developed.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, culms solitary or caespitose. Rhizomes elongated. Basal innovations extravaginal. Culms erect, 30–120 cm long, 1–2 mm diam., 3–5 -noded. Leaves cauline. Leaf-sheaths glabrous on surface or pilose. Leaf-sheath oral hairs lacking. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 0.3–1 mm long, erose, truncate. Leaf-blades 6–30 cm long, 3–10 mm wide, stiff to firm. Leaf-blade surface ungrooved, smooth or scaberulous, glabrous to pilose. Leaf-blade apex acuminate, hardened.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, bilateral, 5–20 cm long. Rhachis flattened, pubescent on surface (sparsely), scabrous on margins. Spikelet packing broadside to rhachis, regular, 2 -rowed. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–20 mm long, 3–6 mm wide, falling entire. Spikelet callus glabrous, base truncate. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes similar, subequal in width, shorter than spikelet. Lower glume lanceolate, 7–12 mm long, 1 length of upper glume, coriaceous, without keels, 3–7 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous. Lower glume apex acute, muticous to mucronate. Upper glume lanceolate, 7–12 mm long, 0.7–0.8 length of adjacent fertile lemma, coriaceous, without keels, 3–7 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous. Upper glume apex acute, muticous to mucronate.

Florets. Fertile lemma lanceolate to oblong, 8–13 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma midvein scaberulous. Lemma apex acute, muticous or awned, 1 -awned. Principal lemma awn 0–10 mm long overall, limb scabrous. Palea lanceolate, 0.8 length of lemma, 2 -veined. Palea keels ciliolate. Palea apex truncate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3, 4 mm long. Stigmas 2, protandrous, laterally exerted. Ovary pubescent on apex. Caryopsis with adherent pericarp, ellipsoid, isodiametric, estipitate, without sulcus, 5 mm long, smooth, apex unappendaged. Embryo 0.2 length of caryopsis. Hilum linear, 0.9 length of caryopsis. Endosperm farinose.

$N = 21$ (1 ref TROPICOS). $2n = 42$ (3 refs TROPICOS).

Distribution (TDWG). Continent. Europe, Africa, Temperate Asia, Tropical Asia, Australasia, North America, South America, Antarctica.

Region. Northern Europe, Middle Europe, Southwestern Europe, Southeastern Europe, Eastern Europe.

Country /Province /State. : Denmark, Finland, Foroyar, Great Britain, Iceland, Ireland, Northern Ireland, Norway, Sweden. : Austria, Liechtenstein, Belgium, Luxembourg, Czechoslovakia, Germany, Hungary, Netherlands, Poland, Switzerland. : Baleares, Corsica, Channel Islands, France, Monaco, Portugal, Sardinia, Andorra, Gibraltar, Spain. : Albania, Bulgaria, Greece, Italy, San Marino, Vatican, Romania, Malta, Sicily, Turkey Europe, Yugoslavia. Belarus, Estonia, Kaliningrad, Latvia, Lithuania, Baltic States, Krym, Central European Russia, East European Russia, North European Russia, South European Russia, Northwest European Russia, Ukraine. **Northern Africa, Macaronesia, Southern Africa.** Algeria, Libya, Morocco, Tunisia. Madeira. Western Cape, Eastern Cape. Siberia, Russian far east, **Middle Asia, Caucasus, Western Asia, China, Mongolia, Eastern Asia, Russia.** Altay, Buryatiya, Chita, Irkutsk, Krasnoyarsk, Tuva. Amur, Kamchatka, Khabarovsk, Kuril Is, Magadan, Sakhalin. Kazakhstan, Turkmenistan, Tadjikistan, Uzbekistan. China South Central, Inner Mongolia, Manchuria, China North-Central, Qinghai, Tibet, Xinjiang. Mongolia. Japan, Korea. Japan Hokkaido, or Honshu. **Indian Subcontinent.** Eastern Himalaya, Pakistan, West Himalaya. **Australia, New Zealand.** Western Australia (*), South Australia (*), New South Wales (*), Victoria (*), Tasmania (*). Caroline Is (*). **Subarctic America, Western Canada, Eastern Canada, Northwest USA, North-central USA, Northeast USA, Southwestern USA, Southeastern USA.** Alaska, Northwest Territories, Greenland. Manitoba. Labrador, New Brunswick, Newfoundland, Nova Scotia, Prince Edward I, Quebec. Colorado, Idaho, Montana, Oregon, Washington, Wyoming. Illinois, Iowa, Kansas, Minnesota, Missouri, North Dakota, Oklahoma, South Dakota, Wisconsin. Connecticut, Indiana, Maine, Massachusetts, Michigan, Ohio, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, West Virginia. California, Nevada, Utah. Arkansas, Delaware, Kentucky, Maryland, North Carolina, Virginia. **Brazil, Southern South America.** Argentina Northeast, Argentina South, Chile Central, Chile South. **Subantarctic islands.** Falkland Is (Malvinas).

TDWG4. Gansu, Hebei, Shandong, Sichuan, Yunnan. Darjeeling. Jammu Kashmir. Buenos Aires, Cordoba, Distrito Federal, Entre Rios. Santa Cruz, Tierra del Fuego. Santiago, La Araucania. Los Lagos, Magellanes.

Elymus retroflexus B. Rong Lu & B. Salomon. *Nordic J. Bot.*, 13(4): 355 (1993).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Xizang: 94 km W of Gongbogyamda, 21 Sept. 1988, J.L. Yang et al. 880786 (HT: LD; IT: K, PE, SAUTI).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. retro*, backwards; *flexus*, bend. Inflorescence branches or leaf-blades reflexed.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms erect, 55–75 cm long, 3–4 -noded. Culm-internodes distally glabrous. Leaf-sheaths smooth, glabrous on surface. Leaf-sheath auricles falcate, 1–1.2 mm long. Ligule an eciliate membrane, 0.4–0.5 mm long, lacerate. Leaf-blades 4–10 cm long, 1–2 mm wide. Leaf-blade surface scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 6.5–12 cm long, 5–10 mm wide. Rhachis flattened, smooth on surface. Spikelet packing broadside to rhachis, lax. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15–20 mm long, 2–5 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 2.5–3 mm long, pilose.

Glumes. Glumes persistent, similar. Lower glume elliptic, 1.5–5 mm long, coriaceous, much thinner on margins, without keels, 3 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acuminate, muticous or mucronate. Upper glume elliptic, 3–7.5 mm long, coriaceous, with membranous margins, without keels, 3–5 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, 9–12 mm long, 1–1.5 mm wide, coriaceous, 5 -veined, more than 3-veined. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn curved, 35–55 mm long overall. Palea lanceolate, 8–9 mm long, 0.9 length of lemma, 2 -veined. Palea keels ciliate. Palea apex truncate, ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 2.5–3 mm long, yellow.

$2n = 28$ (5 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Tibet.

Elymus retusus A.Löve. *Feddes Repert.* 95:455 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria mutica* Keng ex Keng & S.L. Chen, *Acta Univ. Nankin. Sci. Nat* 1963(1): 87 (1963)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *Keng et al., Fl. Ill. Pl. Prim. Sin., Gram. f. 337 (1959)*, LT designated by Yen et al., *Novon* 5: 297 (1995).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms 30–80 cm long. Leaf-sheaths smooth, glabrous on surface. Ligule an eciliate membrane. Leaf-blades flat or conduplicate, 1.5–4 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 3–8 cm long. Spikelet packing broadside to rhachis, lax, 2 -rowed. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Spikelet callus base truncate.

Glumes. Glumes similar, subequal in width, shorter than spikelet. Lower glume lanceolate, 4–5.6 mm long, 1 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume surface glabrous or pubescent. Lower glume apex acute. Upper glume lanceolate, 4–6.5 mm long, 0.5 length of adjacent fertile lemma, coriaceous, without keels, 3–5 -veined. Upper glume surface glabrous or pubescent. Upper glume apex acute.

Florets. Fertile lemma lanceolate to oblong, 8–11 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface pubescent. Lemma apex acute, muticous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2–2.6 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp. Hilum linear.

$2n = 42$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Qinghai.

Elymus rigescens Trin. *Linnaea*, 10: 304 (1836).

TYPE from Chile. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: LT: *Poeppig* 29, Chile: Andes de Antuco (LE(as ILT); ILT: BAA(fragm.), BM, G, LE, MO, US). LT designated by Seberg & Petersen, Bot. Jahr. Syst. 120(4): 512 (1998).

Illustrations (Books): M.N. Correa, *Flora Patagonica* Parte III, Gramineae (1978) (449, Fig. 298).

Derivation (Clifford & Bostock 2007): *L. rigescens*, become rigid. Leaf-blades stiff and erect.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 50–90 cm long, 3–4 -noded. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 0.5–1 mm long, truncate. Leaf-blades convolute, 3–4 mm wide. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 8–10 cm long. Spikelet packing broadside to rhachis. Rhachis internodes linear, 2–3 mm long. Rhachis internode tip flat. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–12 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 8.5–9 mm long, 1 length of upper glume, coriaceous, without keels, 2–3 -veined. Lower glume apex acute, awned, 1 -awned, awn 1–2 mm long. Upper glume lanceolate, 8.5–9 mm long, 0.9 length of adjacent fertile lemma, coriaceous, without keels, 2–3 -veined. Upper glume apex acute, awned, 1 -awned, awn 1–2 mm long.

Florets. Fertile lemma lanceolate, 9–10 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma surface scabrous, rough above. Lemma apex dentate, 2 -fid, acute, awned, 1 -awned. Principal lemma awn from a sinus, 8–15 mm long overall. Palea 1 length of lemma. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2–2.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (1 ref TROPICOS).

Distribution (TDWG). Continent. South America.

Country /Province /State. Southern South America. Argentina South.

Neuquén, Río Negro. Rest of Chile- Biobio, La Auracania, Maule, O'Higgins, Santado, Valpariso.

Elymus rigidulus (Keng) A.Löve. *Feddes Repert.* 95:455 (1984).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, U. Quattrocchi, *CRC World Dictionary of Grasses* (2006).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. rigidus*, stiff; *-ula*, diminutive. Plants with stiffly erect inflorescence branches or leaf-blades.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Culms erect or geniculately ascending, 50–75 cm long, 2 mm diam., 3–4 -noded, with 0.4–0.5 of their length below uppermost node. Leaf-sheaths 15–17 cm long, mostly shorter than adjacent culm internode, glabrous on surface. Ligule an eciliate membrane, 0.4 mm long, scarious. Leaf-blades erect, involute, 3–10 cm long, 2–4 mm wide. Leaf-blade surface pubescent, hairy adaxially. Leaf-blade margins ciliate.

Inflorescence. Inflorescence composed of racemes. Peduncle glabrous. Racemes 1, single, arcuate, bilateral, 7.5–8 cm long. Rhachis flattened, glabrous on margins or ciliate on margins. Spikelet packing broadside to rhachis, regular, 2 -rowed. Rhachis internodes 3–9 mm long. Spikelets solitary. Fertile spikelets sessile.

Sterile Spikelets. Basal sterile spikelets absent or rudimentary, 1 in number.

Fertile Spikelets. Spikelets comprising 4–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 10–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1 mm long, pubescent. Floret callus pubescent.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate or ovate, 2–4 mm long, coriaceous, without keels, 1–4 -veined. Lower glume primary vein scabrous. Lower glume surface glabrous. Lower glume apex acute or acuminate, muticous. Upper glume lanceolate or oblong, 3–5 mm long, coriaceous, without keels, 3–4 -veined. Upper glume primary vein scabrous. Upper glume surface glabrous. Upper glume apex acuminate, muticous.

Florets. Fertile lemma lanceolate or oblong, 7–8 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface pubescent or pilose. Lemma apex awned, 1 -awned. Principal lemma awn 2–3 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels ciliolate, adorned above, with 0.8 of their length adorned. Palea surface puberulous, hairy on back. Palea apex emarginate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2–2.5 mm long, yellow or purple. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, hairy at apex, apex unappendaged. Hilum linear.

$2n = 42$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China North-Central, Qinghai, Tibet.

TDWG4. Gansu.

Elymus riparius (Scribn. & J. G. Smith) Gould, non Wieg.(1918). *Madrono*, 9: 127 (1947).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Agropyron riparium* Scribn. & J.G. Sm., *Bull. Div. Agrostol., U.S.D.A.* 4: 35 (1897)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: P.A. Rydberg 2127, 10 Jul 1895, USA: Montana: Garrison (US-556672; ILT: NY-327598, NY-327597, NY-329599). LT designated by Hitchcock, *Man. Grass. U.S.* 776 (1935).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (301).

Derivation (Clifford & Bostock 2007): L. ripa, river bank; -aria, pertaining to. Growing on river banks.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes absent. Culms slender, 100–150 cm long. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane. Leaf-blades 5–15 mm wide. Leaf-blade surface scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 7–20 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes oblong. Spikelets in pairs. Fertile spikelets sessile, 2 in the cluster.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–12 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, reaching apex of florets. Lower glume lanceolate, 10 mm long, 1 length of upper glume, coriaceous, without keels, 2–4 -veined. Lower glume apex attenuate, awned, 1 -awned, awn 10–15 mm long. Upper glume lanceolate, 10 mm long, coriaceous, without keels, 2–4 -veined. Upper glume lateral veins ribbed. Upper glume apex attenuate, awned, 1 -awned, awn 10–15 mm long.

Florets. Fertile lemma lanceolate, 10–12 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface smooth or scaberulous. Lemma apex attenuate, awned, 1 -awned. Principal lemma awn straight, subterete below, 20–30 mm long overall. Palea 0.7–0.9 length of lemma, 2 -veined. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Hilum linear.

$2n = 28$ (1 ref TROPICOS).

Distribution (TDWG). Continent. North America.

Country /Province /State. Eastern Canada, Northwest USA, North-central USA, Northeast USA, South-central USA, Southeastern USA, Mexico. Ontario, Quebec. Iowa, Minnesota, Missouri. Connecticut, Indiana, Maine, Massachusetts, Michigan, Ohio, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, West Virginia. Arkansas, Georgia. Northeast Mexico.

Durango.

Elymus russellii (Meld.) T.A. Cope. *Fl. Pakistan*, 143: 618 (1982).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *Agropyron*).

Basionym or Replaced Name: *Agropyron russellii* Melderis, *Grass. Burma, Ceylon, India & Pakistan* 694 (1960)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Karakoram: Hispar Glacier, dry bank 12,500 ft., 1 Aug 1939, *R. Scott Russell 1388* (HT: BM).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of R. Scott-Russell (fl. 1939).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–60 cm long. Ligule an eciliate membrane. Leaf-blades flat or conduplicate, 5–20 cm long, 2–5 mm wide. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight or arcuate, bilateral, 8–15 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, lax. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 14–16 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume elliptic or oblong, 7–11 mm long, 1 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous, rough on veins. Lower glume apex acuminate. Upper glume elliptic or oblong, 7–11 mm long, 0.7–0.9 length of adjacent fertile lemma, coriaceous, without keels, 3–5 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous, rough on veins. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate or oblong, 10–12 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma surface puberulous, hairy all along. Lemma apex acute, awned, 1 -awned. Principal lemma awn straight, 10–20 mm long overall. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3, 2.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent. Pakistan.

Elymus sajanensis (Nevski) Tsvelev. *Novosti Sist. Vyssh. Rast.*, 9: 61 (1972).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Roegneria sajanensis* Nevski, *Fl. URSS* 2: 624 (1934)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Russia, Garganensis: Komarov.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From the Sajan Mountains, Irkutsk Province, Russia.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 25–35 cm long. Leaves basal and cauline. Ligule an eciliate membrane. Leaf-blades 2.5–5 mm wide. Leaf-blade surface scabrous, glabrous or pubescent.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 4.5–7 cm long. Spikelet packing broadside to rhachis. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–13 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, asymmetrical (at apex), 6–8 mm long, 1 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acute, awned, 1 -awned, awn 1 mm long. Upper glume lanceolate, asymmetrical (at apex), 6–8 mm long, 0.5–0.75 length of adjacent fertile lemma, coriaceous, without keels, 3–5 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex acute, awned, 1 -awned, awn 1 mm long.

Florets. Fertile lemma lanceolate, 8–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scabrous, rough above. Lemma apex dentate, 2 -fid, acute, awned, 1 -awned. Principal lemma awn from

a sinus, 1–2 mm long overall. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Siberia, Russian far east. Altay, Irkutsk, Krasnoyarsk, Tuva, Kamchatka.

TDWG4.

Elymus scaber (R.Br.) A.Löve. *Repert. Spec. Nov. Regni Veg.* 95: 468(1984).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006) (as *Agropyrum*), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Triticum scabrum* R. Br., *Prodr.* 178 (1810). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: Australia (FD); Habitat in capite Van-Diemen.

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (265, Fig 205 as var. *scaber*), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (512, Fig 100), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (238), J.C.Tothill, & J.B.Hacker. *The grasses of southern Queensland* (1983) (80 as *Agropyron*), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): L. rough or gritty to the touch. Plants with rough leaf-blades, spikelets or stems.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths persistent and investing base of culm, with fibrous dead sheaths. Culms erect, 25–120 cm long. Culm-internodes smooth or antrorsely scabrous. Culm-nodes glabrous. Leaves mostly basal. Ligule an eciliate membrane. Leaf-blades flat or involute, 10–40 cm long, 2–4 mm wide, glaucous. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 15–25 cm long, bearing few fertile spikelets, bearing 2–12 fertile spikelets on each. Rhachis flattened. Spikelet packing broadside to rhachis, distant. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 25–35 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume oblong, 8–10 mm long, 0.66–0.8 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume lateral veins ribbed. Lower glume apex acute. Upper glume oblong, 12 mm long, 1 length of adjacent fertile lemma, coriaceous, without keels, 5–7 -veined. Upper glume lateral veins ribbed. Upper glume apex acute.

Florets. Fertile lemma elliptic, 12 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma apex acute, awned, 1 -awned. Principal lemma awn 30–40 mm long overall. Palea 0.9 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3, 2.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia, New Zealand. Western Australia, South Australia, Queensland, New South Wales, A.C.T., Victoria, Tasmania.

Elymus scabridulus (Ohwi) Tsvelev. *Akad. Nauk SSSR Bot. Inst. Komarova, Rast. Tsentral. Azii, Fasc.* 4, 218 (1968).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Agropyron scabridulum* Ohwi, *J. Jap. Bot.* 19(6): 166–167 (1943)

T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Nei Monggol: forest margins, mountain slopes, 20 July 1942, *T. Kanashiro 3841* (HT: ?; IT: US).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. *scabrida*, rough; *-ulum*, diminutive. Leaf-blades somewhat scabrid.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms geniculately ascending, 50–60 cm long, 2–3-noded. Culm-internodes smooth. Culm-nodes pubescent. Leaf-sheaths 5–12 cm long, smooth. Ligule an eciliate membrane. Leaf-blades convolute, 15–20 cm long, 3 mm wide. Leaf-blade surface scaberulous, rough on both sides.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 8–10 cm long. Rhachis scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 12 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes scaberulous.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 9–10 mm long, 0.9 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume surface asperulous, rough on veins. Lower glume apex with a unilateral tooth, acute. Upper glume lanceolate, 11–12 mm long, 1.5 length of adjacent fertile lemma, coriaceous, without keels, 3–5 -veined. Upper glume surface asperulous, rough on veins. Upper glume apex with a unilateral tooth, acute.

Florets. Fertile lemma lanceolate, 7–8 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scaberulous. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 12–15 mm long overall. Palea 1 length of lemma. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 1.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Inner Mongolia.

TDWG4.

Elymus scabrifolius (Doell) J.H. Hunziker. *Darwiniana*, 35: 167 (1998).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Uruguay. **Basionym or Replaced Name:** *Triticum repens* var. *scabrifolium* Dvll, *Fl. Bras.* 2(3): 226 (1880)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *F. Sello s.n.*, Uruguay: Monte Video (US; ILT: B?(lost?)). LT designated by Seberg & Petersen, *Bot. Jahr. Syst.* 120(4): 530, 538–539 (1998).

Recent Synonyms: *Agropyron scabrifolium* (Doell) L. Parodi, *Gramin. Bonar.*, ed. 4, 88 (1946).

Illustrations (Books): E.G.Nicora, *Los Generos de Gramineas de America Austral* (1987) (252, Fig. 80 as *Agropyron*), A.Burkat, *Flora Ilustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (as *Agropyron*), A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (171, fig. 47 as *Agropyron scabrifolium*), M.N.Correa, *Flora Patagonica Parte III, Gramineae* (1978) (460, Fig. 305 as *Agropyron scabrifolium*), B.Rosengurt, *Gramineas Uruguayas I* (1970) (as *Agropyron scabrifolium*).

Derivation (Clifford & Bostock 2007): L. scaber, rough; folium, leaf. Leaf-blades rough.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Rhizomes short. Culms 100–200 cm long, 4–6 -noded. Leaf-sheaths glabrous on surface. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 1–1.5 mm long, truncate. Leaf-blades flat or convolute, 20–30 cm long, 2–4 mm wide. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 10–25 cm long. Rhachis scabrous on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear, 6–13 mm long. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 6–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 12–24 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes scaberulous.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, 8–12 mm long, 0.9 length of upper glume, coriaceous, without keels, 5–8 -veined. Lower glume surface scabrous, rough above. Lower glume apex acute, mucicous or mucronate or awned, 1 -awned, awn 0.2–1.5 mm long. Upper glume lanceolate, symmetrical or asymmetrical, 9–14 mm long, 0.9 length of adjacent fertile lemma, coriaceous, without keels, 5–8 -veined. Upper glume surface scabrous, rough above. Upper glume apex entire or with a unilateral tooth, acute, mucicous or mucronate or awned, 1 -awned, awn 0.2–1.5 mm long.

Florets. Fertile lemma lanceolate, 10–15 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma apex acute, mucronate or awned, 1 -awned. Principal lemma awn 0.2–5 mm long overall. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, 6 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Southern South America. Argentina South.

TDWG4. Catamarca, Tucuman. Buenos Aires, Chaco, Cordoba, Corrientes, Entre Rios, La Pampa, Santa Fe.

Elymus scabriglumis (Hackel) A. Love. *Feddes Rept.* 95: 472 (1984).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Argentina. **Basionym or Replaced Name:** *Agropyron repens* var. *scabriglume* Hack., *Anales Mus. Nac. Buenos Aires* 21: 175 (1911)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *Budin* 69, 22 Jan 1906, Argentina: Jujuy: Maimar, alt. 2200 m (LIL-4952; ILT: BAA, US, W). LT designated by Seberg & Petersen, *Bot Jahr. Syst.* 120: 535 (1998).

Recent Synonyms: *Agropyron scabriglume* (Hack.) L. Parodi, *Rev. Mus. La Plata, n. s* 3 *Secc. Bot.*, 28 (1940).

Illustrations (Books): A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (171, Fig. 47 as *Agropyron scabriglume*), M.N.Correra, *Flora Patagonica* Parte III, Gramineae (1978) (462, Fig. 310 as *Agropyron scabriglume*).

Derivation (Clifford & Bostock 2007): L. scaber, rough; gluma, husk. Glumes scabrous.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms geniculately ascending, 50–120 cm long, 3–5 -noded. Culm-nodes glabrous. Leaf-sheath auricles falcate, 0.5 mm long. Ligule an eciliate membrane. Leaf-blades flat or convolute, 10–20 cm long, 2–6 mm wide, stiff. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 5–20 cm long. Spikelet packing broadside to rhachis. Rhachis internodes linear, 2–5 mm long. Rhachis internode tip flat. Spikelets solitary or in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 12 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pilose.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, symmetrical, 7–8 mm long, 1 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous, rough on veins. Lower glume apex acute, awned, 1 -awned, awn 1–4 mm long. Upper glume lanceolate, symmetrical, 7–8 mm long, 1 length of adjacent fertile lemma, 0.75 length of spikelet, coriaceous, without keels, 3–5 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous. Upper glume apex acute, awned, 1 -awned, awn 1–4 mm long.

Florets. Fertile lemma lanceolate, 9–10 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma surface scabrous. Lemma apex acute, awned, 1 -awned. Principal lemma awn 1.3–5 mm long overall. Palea 1 length of lemma. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2–3 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 42$ (2 refs TROPICOS).

Distribution (TDWG). Continent. South America.

Country /Province /State. Southern South America. Argentina Northeast, Argentina South, Argentina Northwest, Chile North.

TDWG4. Jujuy, Mendoza, San Luis, Tucuman. Buenos Aires, La Pampa. Neuquén, Río Negro. Antofagasta.

Elymus schugnanicus (Nevski) Tsvelev. *Novosti Sist. Vyssh. Rast.*, 9: 62 (1972).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *Agropyron*), N.Tsvelev, *Grasses of the Soviet Union* (1983).

Basionym or Replaced Name: *Agropyron schugnanicum* Nevski, *Izv. Bot. Sada Akad. Nauk SSSR* 30: 512 (1932)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Tajikistan: Schugnan, Jilandy-Duzak, 14 July 1943, *N.N. Tuturin 14* (HT: LE; IT: LE).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ica, belonging to. From Schugnan Province, Turkestan, former Soviet Union.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 16–60 cm long. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades flat or convolute, 4–15 cm long, 2–3 mm wide. Leaf-blade surface pubescent, densely hairy, hairy abaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, arcuate, bilateral, 7–10 cm long. Rhachis flattened, smooth on margins or scabrous on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes oblong, 5–12 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15–20 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate or oblong, 3.5–5.5(–6) mm long, 0.7–0.8 length of upper glume, coriaceous, without keels, 3 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous. Lower glume apex acute, muticous or awned, 1 -awned, awn 0–2 mm long. Upper glume lanceolate or oblong, 5–6.5 mm long, 0.6–0.7 length of adjacent fertile lemma, coriaceous, without keels, 5 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous. Upper glume apex acute, muticous or awned, 1 -awned, awn 0–2 mm long.

Florets. Fertile lemma lanceolate or oblong, 8–10 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma surface scabrous. Lemma apex acute, awned, 1 -awned. Principal lemma awn curved, reflexed, 30–35 mm long overall. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3, 2–2.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (3 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. Middle Asia, China. Turkmenistan. Tibet. **Indian Subcontinent.** Pakistan, West Himalaya.

TDWG4. Himachal Pradesh.

Elymus sclerophyllus (Nevski) Tsvelev. *Novosti Sist. Vyssh. Rast.*, 9: 59 (1972).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Roegneria sclerophylla* Nevski, *Fl. URSS* 2: 614 (1934)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Russia, Ravnou: Gontscharov, Grigorjev & Nikitin 962.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. skleros, hard; phyllon, leaf. Leaf-blades indurate or coriaceous.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 100–150 cm long. Culm-internodes smooth, distally glabrous. Ligule an eciliate membrane. Leaf-blades 12–25 cm long, 2–8 mm wide, stiff. Leaf-blade surface scabrous, rough adaxially, glabrous. Leaf-blade margins smooth or scaberulous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight, bilateral, 8–16 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, 14–28 mm long. Rhachis internode tip flat. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15–18 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume elliptic, 11–15 mm long, 1 length of upper glume, coriaceous, without keels, 5–7 -veined. Lower glume surface scabrous, rough on veins.

Lower glume apex acuminate, awned, 1 -awned, awn 1–2 mm long. Upper glume elliptic, 11–15 mm long, coriaceous, without keels, 5–7 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex acuminate, awned, 1 -awned, awn 1–2 mm long.

Florets. Fertile lemma elliptic or oblong, 10–12 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface puberulous. Lemma apex acute, awned, 1 -awned. Principal lemma awn straight or curved, ascending, 10–20 mm long overall. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 3–4.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Middle Asia, Western Asia. Turkmenistan. Iran.

TDWG4.

Elymus scribneri (Vasey) M. E. Jones. *Contrib. West. Bot. No.* 14, 20 (1912).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Agropyron scribneri* Vasey, *Bull. Torrey Bot. Club* 10: 128 (1883)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *F.L. Scribner s.n.*, 1883, USA: Montana (US-556664).

ST: *C.G. Pringle s.n.*, 1882, Sierras, alt. 9500 ft

ST: *F. L. Scribner 427*, USA: Montana (NY-327600).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (333).

Derivation (Clifford & Bostock 2007): in honor of Frank Lamson Scribner (1851–1938) United States agrostologist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms decumbent, 15–40 cm long. Leaves mostly basal. Leaf-sheaths pubescent or pilose, with reflexed hairs. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 0.5 mm long, entire or erose. Leaf-blades involute, 4–7 cm long, 2–4 mm wide. Leaf-blade surface pubescent.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, sinuous, bilateral, 3–6 cm long. Rhachis tardily fragile at the nodes, flattened, smooth on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, 3–5 mm long, falling with spikelet above. Rhachis internode tip not enlarged or clavate (rarely), flat. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–12 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 2 mm long, scaberulous.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, 6–9 mm long, 1 length of upper glume, coriaceous, without keels, 2–5 -veined. Lower glume apex entire or with a unilateral tooth, acute, awned, 1 -awned, awn 10–15 mm long. Upper glume lanceolate, 6–9 mm long, coriaceous, without keels, 2–5 -veined. Upper glume apex entire or with a unilateral tooth, acute, awned, 1 -awned, awn 10–15 mm long.

Florets. Fertile lemma lanceolate to oblong, 7–8 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma lateral veins obscure. Lemma surface smooth or scaberulous. Lemma apex dentate, 1–2 -fid, with heterogeneous lobes, acute, awned, 1 -awned. Principal lemma awn from a sinus, spreading, 20–30 mm long overall. Palea 1 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 1.5–2 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (1 ref TROPICOS).

Distribution (TDWG). Continent. North America.

Country /Province /State. Western Canada, Northwest USA, Southwestern USA, South-central USA. Alberta, British Columbia. Colorado, Idaho, Montana, Wyoming. Arizona, California, Nevada, Utah. New Mexico.

Elymus semicostatus (Nees ex Steudel) A. Melderis. *Enum. Fl. Pl. Nepal*, 1: 132 (1978).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *Agropyron* & *A. striatum*).

TYPE from Nepal. **Basionym or Replaced Name:** *Triticum semicostatum* Steud., *Syn. Pl.Gram.* 346 (1854). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Nepal: Royle 150 (K syn) ; Nepal: Royle 178 (K syn).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 24 Poaceae*, part 1 (2007) (339).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 45–135 cm long. Leaf-sheaths glabrous on surface or hirsute. Ligule an eciliate membrane. Leaf-blades flat or involute, 15–30 cm long, 4–8(–12) mm wide. Leaf-blade surface smooth or scaberulous, rough adaxially, glabrous or hirsute.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight or arcuate, bilateral, 8–30 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 6–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 20–30 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate or elliptic, 10–16.5 mm long, 0.9 length of upper glume, coriaceous, without keels, 5 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous, rough on veins. Lower glume apex acute or acuminate. Upper glume lanceolate or elliptic, 11–18 mm long, 0.9–1.3 length of adjacent fertile lemma, coriaceous, without keels, 7 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous, rough on veins. Upper glume apex acute or acuminate.

Florets. Fertile lemma elliptic, 12–14 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma surface scabrous. Lemma apex acute, awned, 1 -awned. Principal lemma awn (4–)12–18 mm long overall. Palea 0.75 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3, 3–4 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (2 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. Western Asia, China. Iran. **Indian Subcontinent.** Pakistan, West Himalaya.

TDWG4. Sikkim. Uttah Pradesh. Himachal Pradesh, Jammu Kashmir.

Elymus serotinus (Keng ex Y.L. Keng & S.L. Chen) A.Löve. *Feddes Repert.* 95: 467 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria serotina* Keng ex Keng & S.L. Chen, *Acta Univ. Nankin. Sci. Nat.* 3(1): 50 (1963)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Shaanxi: Taibai Shan, 7 Sept. 1937, *T.N. Liou et al.* 693 (HT: PE; IT: N).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 578).

Derivation (Clifford & Bostock 2007): L. late. Flowering late in the season.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 40–50 cm long, 0.5–1.2 mm diam., 2–3 -noded, with 0.4–0.5 of their length below uppermost node. Culm-internodes smooth, distally glabrous. Leaf-sheaths 7–10 cm long, mostly shorter than adjacent culm internode or subequal to internodes, pilose, outer margin hairy. Ligule an eciliate membrane, 0.5 mm long, truncate. Leaf-blades involute, 9–11(–20) cm long, 1–2 mm wide. Leaf-blade surface smooth or scaberulous, rough adaxially, glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 6–10 cm long, bearing 5–11 fertile spikelets on each. Rhachis flattened, glabrous on surface, scaberulous on margins. Spikelet packing broadside to rhachis, regular, 2 -rowed. Rhachis internodes 7–15 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 12–13 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 2 mm long, pubescent. Floret callus pubescent.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate or oblong, 5–6 mm long, coriaceous, without keels, 3–5 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acute or acuminate, muticous. Upper glume lanceolate or oblong, 7–8 mm long, coriaceous, without keels, 3–5 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex acute or acuminate, awned, 1 -awned, awn 2–5 mm long.

Florets. Fertile lemma lanceolate or oblong, 10 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface puberulous. Lemma apex awned, 1 -awned. Principal lemma awn reflexed, 25–30 mm long overall. Palea 1 length of lemma, 2 -veined. Palea surface puberulous, hairy on back, hairy above. Palea apex truncate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, 5 mm long, hairy at apex, apex unappendaged. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China North-Central, Qinghai, China Southeast.

TDWG4. Shaanxi. Henan.

Elymus serpentinus (L.B. Cai) S.L. Chen & G.H. Zhu. *Novon* 12(3): 427 (2002).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria serpentina* L.B. Cai, *Acta Phytotax. Sin.*, 35(2): 167 (1997). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China, Hebei, Yuxian: Exped. Shanxi 10147 (HNWP holo).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 571).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China North-Central.

TDWG4. Hebei.

Elymus (Agropyron) setuliferus (Nevski) FORSAN. (1999).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online (as *Elytrigia*).

TYPE from Russia. **Basionym or Replaced Name:** *Elytrigia setulifera* Nevski, *Acta Univ. As. Med. Ser. VIII b, Bot. Fasc.* 17, 61 (1934). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Russia, Kuhitang: Nevski 871.

Recent Synonyms: *Elytrigia setulifera* Nevski, *Acta Univ. As. Med. Ser.* 8 b, *Bot. Fasc.* 17, 61 (1934).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. seta, bristle; -ula, diminutive; fero, bear.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms erect or geniculately ascending, 50–80 cm long. Culm-internodes smooth. Ligule an eciliate membrane. Leaf-blades flat or involute, 10–20 cm long, 2–3 mm wide, glaucous. Leaf-blade surface scabrous, rough abaxially, puberulous, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Peduncle antrorsely scabrous above. Racemes 1, single, bilateral, 5–12 cm long. Rhachis flattened, ciliate on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–18 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, 5–8 mm long, 1 length of upper glume, coriaceous, without keels, 5–7 -veined. Lower glume surface asperulous, rough on veins. Lower glume apex obtuse. Upper glume lanceolate, 5–8 mm long, 0.66–0.75 length of adjacent fertile lemma, coriaceous, without keels, 5–7 -veined. Upper glume surface asperulous, rough on veins. Upper glume apex obtuse.

Florets. Fertile lemma lanceolate, 7.5–11 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma apex obtuse, muticous. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Middle Asia. Turkmenistan.

TDWG4.

Elymus shandongensis B. Salomon. *Willdenowia* 19(2): 449 (1990).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Shandong:.

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 586).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From Shandong Province, China.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 50–100 cm long, 4–7 -noded. Leaf-sheaths glabrous on surface, outer margin hairy. Ligule an eciliate membrane. Leaf-blades 8–25 cm long, 4–8 mm wide. Leaf-blade surface scaberulous, rough abaxially or on both sides.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect or drooping, bilateral, 7–20 cm long. Spikelet packing broadside to rachis, 2 -rowed. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15–20 mm long, breaking up at maturity, disarticulating below each fertile floret. Spikelet callus base truncate.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate or elliptic, 5–8 mm long, 0.75 length of upper glume, coriaceous, without keels. Lower glume apex acute. Upper glume lanceolate or elliptic, 7–10 mm long, 0.7–0.8 length of adjacent fertile lemma, coriaceous, without keels, 5–7 -veined. Upper glume apex acute.

Florets. Fertile lemma lanceolate to oblong, 9–13 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma apex acute, awned, 1 -awned. Principal lemma awn 20–30 mm long overall. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, purple. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp. Hilum linear.

$2n = 28$ (7 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China, Eastern Asia. China South Central, China North-Central, China Southeast. Taiwan.

TDWG4. Shaanxi, Shandong. Anhui, Henan, Jiangsu, Zhejiang. Guizhou, Hubei.

Elymus shouliangiae (L.B. Cai) G.H. Zhu. *Novon* 12(3): 427 (2002).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria shouliangiae* L.B. Cai, *Acta Phytotax. Sin.* 35(2): 161–162, pl. 1, f. 10–17 (1997)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Xizang: Gyirong, river banks, 2800 m, 6 July 1975, C.Y. Wu et al. 678 (HT: PE).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 594).

Derivation (Clifford & Bostock 2007): In honor of Shou Liang Chen (1921-) Chinese botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms erect, 60–70 cm long, 2–3 mm diam., 4 -noded. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 0.3 mm long, truncate. Leaf-blades 9–17 cm long, 3–6 mm wide, stiff. Leaf-blade surface smooth or scaberulous, rough adaxially, glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 16–19 cm long. Rachis flattened, glabrous on surface, scabrous on margins. Spikelet packing broadside to rachis, lax. Rachis internodes 15–23 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 8–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 26–32 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes persistent, similar. Lower glume lanceolate, 7–8 mm long, coriaceous, without keels, 3–4 -veined. Lower glume apex acuminate. Upper glume lanceolate, 8–9 mm long, coriaceous, without keels, 5–7 -veined. Upper glume apex acuminate, awned, 1 -awned, awn 2–5 mm long.

Florets. Fertile lemma lanceolate, 11–12 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn curved, reflexed, 35–40 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels scabrous. Palea surface glabrous. Palea apex truncate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 4–5 mm long, brown. Ovary pubescent on apex.
Distribution (TDWG). Continent. Temperate Asia.
Country /Province /State. China. Tibet.

Elymus sibiricus Yu.A. Kotukhov. *Bot. Zhurn.*, 77(6): 93 (1992).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms geniculately ascending, 70–120 cm long. Culm-internodes smooth, distally glabrous. Culm-nodes glabrous or pubescent. Ligule an eciliate membrane. Leaf-blades 8–15 mm wide. Leaf-blade surface scaberulous, rough abaxially, pilose, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight, bilateral, 13–18 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, crowded. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pilose. Floret callus pilose.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 9–11 mm long, 1 length of upper glume, coriaceous, much thinner on margins, without keels, 5–7 -veined. Lower glume surface scabrous. Lower glume apex acuminate, awned, 1 -awned, awn 2–5 mm long. Upper glume lanceolate, 9–11 mm long, 1 length of adjacent fertile lemma, coriaceous, with hyaline margins, without keels, 5–7 -veined. Upper glume surface scabrous. Upper glume apex acuminate, awned, 1 -awned, awn 2–5 mm long.

Florets. Fertile lemma lanceolate, 9–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scabrous. Lemma apex acute, awned, 1 -awned. Principal lemma awn curved, 10–16 mm long overall. Palea 1 length of lemma. Palea keels scaberulous. Palea surface scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.5–1.8 mm long.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Middle Asia. Kazakhstan, Turkmenistan.

Elymus sibiricus L. *Sp. Pl.* 1: 83 (1753).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983), T.Koyama, *Grasses of Japan and its neighboring regions* (1987).

TYPE from Russia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: CT: (LINN-100.2). LT designated by Bowden, *Canad. J. Bot.* 42: 554 (1964); CT proposed by Jarvis, *Taxon* 41: 562–563 (1992).

Illustrations (Books): T.Koyama, *Grasses of Japan and its neighbouring regions* (1987) (52, Fig 13), M.E.Barkworth et al, *Flora of North America north of Mexico Vol 24 Poaceae*, part 1 (2007) (311), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 559).

Derivation (Clifford & Bostock 2007): L. *-ica*, belonging to. From Siberia.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes absent. Culms erect, 40–90 cm long, 1–2 mm diam., 3–4 -noded. Leaves basal and cauline. Leaf-sheath oral hairs lacking. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 0.5–1 mm long, truncate. Leaf-blades 6–20 cm long, 3–8 mm wide. Leaf-blade surface scaberulous, rough on both sides, glabrous or pubescent, sparsely hairy, hairy adaxially. Leaf-blade apex acute.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, arcuate, bilateral, 8–18 cm long. Rhachis flattened, pubescent on surface (sparsely), ciliate on margins. Spikelet packing broadside to rhachis. Rhachis internodes oblong, 5–8 mm long. Spikelets in pairs. Fertile spikelets sessile, 2 in the cluster.

Fertile Spikelets. Spikelets comprising 4–5 fertile florets, with diminished florets at the apex. Spikelets elliptic to oblong, laterally compressed, 10–13 mm long, 2–3 mm wide, breaking up at maturity, disarticulating

below each fertile floret. Spikelet callus glabrous, base truncate. Rhachilla internodes elongated between glumes. Rhachilla elongation pubescent.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, 4–5 mm long, 1 length of upper glume, coriaceous, without keels, 3–7 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous. Lower glume apex acuminate, awned, 1 -awned, awn 4–6 mm long. Upper glume lanceolate, 4–5 mm long, 0.4–0.5 length of adjacent fertile lemma, coriaceous, without keels, 3–5 -veined. Upper glume surface scabrous. Upper glume apex acuminate, awned, 1 -awned, awn 4–6 mm long.

Florets. Fertile lemma lanceolate, 8–11 mm long, coriaceous, without keel, 5 -veined. Lemma surface scabrous, rough on veins, glabrous or puberulous. Lemma apex acute, awned, 1 -awned. Principal lemma awn flexuous, 15–18 mm long overall. Palea 2 -veined. Palea keels ciliate. Palea surface glabrous or pubescent, hairy on back. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 1.5–2 mm long. Stigmas 2, protandrous, laterally exerted. Ovary pubescent on apex. Hilum linear.

$N = 14$ (1 ref TROPICOS). $2n = 28$ (19 refs TROPICOS).

Distribution (TDWG). Continent. Europe, Temperate Asia.

Region. Northern Europe (*), Eastern Europe.

Country /Province /State. : GB Aliens (Ryves et al). Belarus, Central European Russia, East European Russia, North European Russia, South European Russia. Siberia, Russian far east, **Middle Asia, Western Asia, China, Mongolia, Eastern Asia.** Altay, Buryatiya, Chita, Irkutsk, Krasnoyarsk, Tuva. Amur, Kamchatka, Khabarovsk, Magadan, Primorye, Sakhalin. China South Central, Inner Mongolia, Manchuria, China North-Central, Qinghai, China Southeast, Tibet, Xinjiang. Mongolia. Japan, Korea. Japan Hokkaido, or Honshu. **Indian Subcontinent.** India, Nepal. **Subarctic America, Western Canada, Eastern Canada.**

TDWG4. Gansu, Hebei, Shaanxi, Shanxi. Henan. Sichuan, Yunnan.

Elymus sierrae Gould. *Madrono* 9(4): 125 (1947).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Agropyron gmelinii* var. *pringlei* Scribn. & J.G. Sm., *Bull. Div. Agrostol., U.S.D.A.* 4: 31 (1897)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Pringle 1882*, USA: California: Sierra Nevada Mountains above Summit Valley (US).

ST: *J.N. Rose 234*, 1893, USA: Wyoming: mountains in Yellowstone National Park, 10000 ft (US).

ST: *J.N. Rose 695*, 1893, USA: Wyoming: Yellowstone National Park (US).

ST: *J.W. Congdon 33*, 1890, USA: California: Mariposa Co.: Mount Hoffman (GH).

ST: *Brewer 2118*, USA: California: Brewer, Carson Pass (GH).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (335).

Derivation (Clifford & Bostock 2007): From Sierra Nevada Mountains, California, USA.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes absent. Culms decumbent, 20–50 cm long, 1–2 -noded. Culm-nodes glabrous. Leaves mostly basal. Leaf-sheaths mostly shorter than adjacent culm internode, glabrous on surface. Leaf-sheath auricles falcate, 0.5–1 mm long. Ligule an eciliate membrane, 0.2–0.5 mm long, erose. Leaf-blades 1–5 mm wide. Leaf-blade surface ribbed, grooved adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, flexuous, bilateral, 5–15 cm long, 7–12 mm wide. Rhachis flattened, ciliate on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear, 5–15 mm long. Spikelets ascending or spreading, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15–20 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes glabrous.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 6–9 mm long, 1 length of upper glume, membranous, without keels, 3 -veined. Lower glume apex awned, 1 -awned, awn 3–10 mm long. Upper glume lanceolate, 6–9 mm long, 0.5 length of adjacent fertile lemma, membranous, without keels, 3 -veined. Upper glume awned, 1 -awned, awn 3–10 mm long.

Florets. Fertile lemma elliptic, 12–16 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface smooth or asperulous. Lemma apex dentate, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, curved, spreading, 15–30 mm long overall. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 2–3.5 mm long.

$2n = 28$ (1 ref TROPICOS).

Distribution (TDWG). Continent. North America.

Country /Province /State. Northwest USA and Southwestern USA. Oregon, Washington. California, Nevada.

Elymus sikkimensis (A. Melderis) A. Melderis. *Enum. Fl. Pl. Nepal*, 1: 132 (1978).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960) (as *Agropyron*).

TYPE from Sikkim. **Basionym or Replaced Name:** *Agropyron sikkimense* Melderis, *Grass. Burma, Ceylon, India & Pakistan* 694 (1960)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Sikkim: Lachen, reg. temp., 9000–10,000 ft. 2 Aug 1849, *J. D. Hooker s.n.* (HT: K).

Illustrations (Books): H.J.Noltie, *The Grasses of Bhutan* (2000).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From Sikkim.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 70–80 cm long. Culm-internodes distally glabrous. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 0.2–0.3 mm long, truncate. Leaf-blades 12–22 cm long, 2–5 mm wide. Leaf-blade surface scaberulous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Peduncle antrorsely scabrous above. Racemes 1, single, straight or arcuate, bilateral, 10–18 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 13–18 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 5–7.5 mm long, 1 length of upper glume, coriaceous, much thinner on margins, without keels, 3–5 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acute. Upper glume lanceolate, 6–8.5 mm long, 0.66–0.8 length of adjacent fertile lemma, coriaceous, with hyaline margins, without keels, 3–5 -veined. Upper glume surface scabrous, rough on veins. Upper glume hairs 2 mm long. Upper glume apex acute.

Florets. Fertile lemma oblong, 9–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scaberulous, rough above. Lemma apex acute, awned, 1 -awned. Principal lemma awn 15–22 mm long overall. Palea 1 length of lemma. Palea keels ciliolate. Palea surface puberulous, hairy on back, hairy above. Palea apex mucicous or with excurrent keel veins. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2 mm long, yellow. Stigmas 2. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent. Eastern Himalaya.

TDWG4. Bhutan, Sikkim.

Elymus sinicus (Keng & Chen) S.L. Chen. *Novon*, 7(3): 229 (1997).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria sinica* Keng ex Keng & S.L. Chen, *Acta Univ. Nankin. Sci. Nat.* 1963(1): 33 (1963). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Qinghai: Xining Xian, near Xujiatai, 19 Aug. 1944, *Y.L. Keng et al. 5505* (HT: NJU).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Figs. 589/590/591 as *Elymus sinicus* var. *sinicus* & *Elymus sinicus* var. *medius*).

Derivation (Clifford & Bostock 2007): L. *Sina*, China; -ica, belonging to. From China.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Rhizomes absent or short. Culms erect or geniculately ascending, 60–90 cm long. Culm-internodes distally glabrous. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane. Leaf-blades involute, 6–22 cm long, 3–7 mm wide, stiff. Leaf-blade surface pilose, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 8–13 cm long. Spikelet packing broadside to rhachis. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets elliptic to oblong, laterally compressed, 13–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent. Floret callus hairs 0.1–0.4 mm long.

Glumes. Glumes collateral, persistent, similar, exceeding apex of florets. Lower glume lanceolate or oblong, 13–15 mm long, 1 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume apex acute, mucicous or awned, awn 1–3 mm long. Upper glume lanceolate or oblong, 13–15 mm long, coriaceous, without keels, 3–5 -veined. Upper glume apex acute, mucicous or awned, awn 1–3 mm long.

Florets. Fertile lemma lanceolate or oblong, 9 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface puberulous. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn straight or curved, 10–18 mm long overall. Palea 1 length of lemma. Palea keels ciliolate. Palea surface puberulous, hairy on back, hairy above. Palea apex emarginate or truncate. Apical sterile florets resembling fertile though underdeveloped.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central, Inner Mongolia, China North-Central, Qinghai, China Southeast, Xinjiang.

TDWG4. Gansu, Shaanxi, Shanxi. Henan. Sichuan, Yunnan.

Elymus sinkiangensis D.F. Cui. *Bull. Bot. Res. North-East. Forest. Inst.*, 10(3): 26 (1990).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Xinjiang: Wulumuqi & Zhaosu Xian, ad pratum et sylvapratum, 1800–2100 m, 25 July 1982, *N.R. Cui* 821769 (HT: XJA-1AC).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 574).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 60–70 cm long, 2–3 -noded. Leaf-sheaths pubescent, with reflexed hairs. Ligule an eciliate membrane, 0.3 mm long. Leaf-blades flat or conduplicate, 3–5 mm wide. Leaf-blade surface hirsute, sparsely hairy, hairy adaxially. Leaf-blade margins ciliate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight, bilateral, 7–10 cm long. Rhachis glabrous on surface, ciliate on margins. Spikelet packing broadside to rhachis, 2 -rowed. Rhachis internodes 4–7 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 13–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Spikelet callus base truncate.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 9–10 mm long, 0.9 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acuminate, mucicous or mucronate or awned, 1 -awned, awn 1–2 mm long. Upper glume lanceolate, 10–12 mm long, 1 length of adjacent fertile lemma, coriaceous, without keels, 3–5 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex acuminate, mucicous or mucronate or awned, 1 -awned, awn 1–2 mm long.

Florets. Fertile lemma elliptic, 10–12 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface pubescent, hairy above. Lemma margins pubescent. Lemma apex acute, awned, 1 -awned. Principal lemma awn curved, 20–35 mm long overall. Palea 1 length of lemma. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 1.5–2 mm long, yellow. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Xinjiang.

Elymus sinoflexuosus S.L. Chen & G.H. Zhu. *Novon* 12(3): 428 (2002).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria flexuosa* L.B. Cai, *Acta Phytotax. Sin.* 34(3): 330–332, pl. 2, f. 1–9 (1996). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Gansu: Zhangye, on mountain slope, 1750 m, 1 Aug. 1957, *X.Z. Zhang* 203 (HT: WUK).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 567).

Derivation (Clifford & Bostock 2007): *L. sina*, China; *flecto*, bend; *-osa*, abundance. A Chinese grass with a strongly bent awn.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Rhizomes short. Culms erect, 30–50 cm long, 1.5–2.5 mm diam., 3–4 -noded. Culm-internodes distally glabrous. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 1 mm long, truncate. Leaf-blades involute, 4–14 cm long, 2–3 mm wide. Leaf-blade surface smooth or scabrous, rough adaxially, glabrous or puberulous, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, flexuous, bilateral, 10–16 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes 12–16 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 6–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15–20 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes persistent, similar. Lower glume lanceolate, 5–6 mm long, coriaceous, without keels, 5–7 -veined. Lower glume surface glabrous. Lower glume apex acute or acuminate. Upper glume lanceolate, 7–8 mm long, coriaceous, without keels, 5–7 -veined. Upper glume surface glabrous. Upper glume apex acute or acuminate.

Florets. Fertile lemma lanceolate, 9–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scabrous. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn curved, 20–25 mm long overall, limb scabrous. Palea 1 length of lemma, 2 -veined. Palea keels scabrous. Palea surface glabrous. Palea apex truncate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.5–2 mm long, yellow.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China North-Central, Xinjiang.

TDWG4. Gansu.

***Elymus sinosubmuticus* S. L. Chen. *Fl. China* 22: 407 (2006).**

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Elymus submuticus* Keng ex Keng f., *Bull. Bot. Res., Harbin* 4(3): 192–193 (1984). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Sichuan: Tehkeh, ad declivitatem, 5 Aug. 1951, Y.W. Cui 7172 (HT: PE).

Recent Synonyms: *Elymus submuticus* Keng, non Smyth (1913), *Feddes Repert.* 95:449 (1984).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 559 & Fig. 562).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 24–45 cm long, 2 -noded, with 0.25 of their length below uppermost node. Leaf-sheaths mostly shorter than adjacent culm internode, glabrous on surface. Ligule an eciliate membrane or absent. Leaf-blades flat or involute, 3–6 cm long, 1.5–3 mm wide. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, arcuate, bilateral, 3.5–7.5 cm long. Rhachis scabrous on margins, terminating in a spikelet or sterile spikelet. Spikelet packing broadside to rhachis, lax. Rhachis internodes 3–9 mm long. Spikelets in pairs. Fertile spikelets sessile or pedicelled. Pedicels absent or present, 1 mm long.

Sterile Spikelets. Basal sterile spikelets absent or well-developed, 1–3 in number.

Fertile Spikelets. Spikelets comprising (1)–2–3(–4) fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 9–13 mm long, breaking up at maturity, disarticulating below each fertile floret. Spikelet callus base truncate. Rhachilla internodes 1–2 mm long, pubescent. Floret callus pubescent.

Glumes. Glumes similar, shorter than spikelet. Lower glume oblong, 2–3 mm long, 1 length of upper glume, coriaceous, without keels, 3 -veined. Lower glume primary vein scabrous. Lower glume lateral veins obscure. Lower glume apex acute or acuminate. Upper glume oblong, 2–3 mm long, 0.25–0.33 length of adjacent fertile lemma, coriaceous, without keels, 3 -veined. Upper glume primary vein scabrous. Upper glume lateral veins obscure. Upper glume apex acute or acuminate.

Florets. Fertile lemma lanceolate, 7–8 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface puberulous, hairy above, hairy on veins. Lemma apex acute, awned, 1 -awned. Principal lemma awn 1–2 mm long overall. Palea 1 length of lemma. Palea keels ciliolate. Palea apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 1.7 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central.
TDWG4.

Elymus sosnowskyi (Hackel) A. Melderis. *Notes Roy. Bot. Gard. Edinburgh*, 42(1): 80 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Turkey. **Basionym or Replaced Name:** *Agropyron sosnowskyi* Hack., *Vestn. Tiflissk. Bot. Sada* 29: 26 (1913)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *D. Sosnowsky 11*, 29 May 1912, Turkey: Prov. Kars: Distr. Olty: locus Borachane, prope Olty, in collibus siccis (BM, W).

ST: *D. Sosnowsky 17*, 18 Jun 1911, Turkey: prope Olty, in rupestris (BM).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Dimitrii Ivanovich Sosnowsky (1885–1952) Russian botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms slender, 35–70 cm long. Ligule an eciliate membrane. Leaf-blades flat or convolute, 6–12 cm long, 1.5–2 mm wide, stiff, glaucous. Leaf-blade surface puberulous, hairy adaxially. Leaf-blade apex attenuate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 12–15 cm long, bearing 9–16 fertile spikelets on each. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, lax. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, compressed slightly, 12 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 6–9 mm long, 1 length of upper glume, coriaceous, without keels, 3 -veined. Lower glume lateral veins ribbed. Lower glume apex acute. Upper glume lanceolate, 6–9 mm long, 0.75–1 length of adjacent fertile lemma, coriaceous, without keels, 3 -veined. Upper glume primary vein conspicuous. Upper glume lateral veins ribbed. Upper glume apex acute.

Florets. Fertile lemma elliptic, 8–9 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma apex attenuate, mucronate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Western Asia. Iran.

Elymus stebbinsii Gould. *Madrono*, 9: 126 (1947).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Agropyron parishii* Scribn. & J.G. Sm., *Bull. Div. Agrostol., U.S.D.A.* 4: 28 (1897)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: LT: *S.B. Parish 2054*, 28 Jun 1888, USA: California: San Bernardino Co.: Waterman's Cañon, San Bernardino Mountains, alt. 3000 ft (US-556669). LT designated by ?; 1 other syntype cited in the protologue.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (331, as subspecies *septentrionalis* & *stebbinsii*).

Derivation (Clifford & Bostock 2007): in honor of George Ledyard Stebbins (1906–) United States botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Culms 70–100 cm long. Culm-nodes pubescent. Ligule an eciliate membrane. Leaf-blades flat or involute, 2–4 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 10–25 cm long. Spikelet packing broadside to rhachis. Rhachis internodes linear, 15–25 mm long. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets lanceolate, laterally compressed, 20 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 2 mm long, scaberulous.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, 10–15 mm long, 1 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume apex acute. Upper glume lanceolate, 10–15 mm long, 0.75 length of adjacent fertile lemma, coriaceous, without keels, 3–5 -veined. Upper glume apex acute.

Florets. Fertile lemma lanceolate, 12–13 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma apex acute, muticous or awned, 1 -awned. Principal lemma awn 1–8 mm long overall. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (1 ref TROPICOS).

Distribution (TDWG). Continent. North America.

Country /Province /State. Southwestern USA. California.

Elymus stenostachyus (Melderis) O. Anders & D. Podlech. *Mitt. Bot. Staatssamml. Munchen*, 12: 315 (1976).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Afghanistan. **Basionym or Replaced Name:** *Agropyron stenostachyum* Melderis, K. H. Rechinger, *Fl. Iran., Lief. 70*, 175 (1970). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Afghanistan, Peiwar Kotel: Rechinger 32251 (W holo, K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. *stenos*, narrow; *stachys*, ear of corn. Inflorescence a narrow spike or spike-like panicle.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths pubescent. Culms slender, 50–60 cm long, 2–3 -noded. Culm-internodes distally pubescent. Ligule an eciliate membrane, 0.2–0.5 mm long, lacerate. Leaf-blades flat or convolute, 11–17 cm long, 2–4 mm wide. Leaf-blade surface scabrous, rough adaxially, glabrous or pubescent, hairy abaxially. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Peduncle pubescent above. Racemes 1, single, erect or drooping, bilateral, 12–15 cm long. Rhachis flattened, scabrous on surface, ciliate on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, laterally compressed, 15–20 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent. Floret callus evident, acute.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, 7.5–8.5 mm long, 0.8–0.9 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume lateral veins prominent. Lower glume surface scabrous, rough on veins. Lower glume apex attenuate, awned, 1 -awned, awn 2.5–4 mm long. Upper glume lanceolate, 8–10 mm long, 1 length of adjacent fertile lemma, coriaceous, without keels, 3–5 -veined. Upper glume lateral veins prominent. Upper glume surface scabrous, rough on veins. Upper glume apex attenuate, awned, 1 -awned, awn 2.5–4 mm long.

Florets. Fertile lemma lanceolate, 8–9 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma lateral veins prominent. Lemma apex acute, awned, 1 -awned. Principal lemma awn straight or curved, 9.5–20 mm long overall. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 3–3.5 mm long, yellow. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Western Asia. Afghanistan.

Elymus stewartii (Meld.) T.A. Cope. *Fl. Pakistan*, 143: 627 (1982).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *Agropyron*).

Basionym or Replaced Name: *Agropyron stewartii* Melderis, *Grass. Burma, Ceylon, India & Pakistan* 695 (1960)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Baltistan: near Kasurmik, Shyok watershed, 9000–10000 ft, 15 Aug 1940, R. R. Stewart & I. D. Stewart 20704 (HT: BM).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Ralph Randles Stewart (1890–1993), United States missionary and botanist at Rawalpindi, Pakistan.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 35–70 cm long. Ligule an eciliate membrane. Leaf-blades 3–5 cm long, 1.5–2.5 mm wide. Leaf-blade surface scaberulous, rough adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 7–11 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, lax. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 12–16 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 7.5–9.5 mm long, 1 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume lateral veins ribbed. Lower glume surface asperulous, rough on veins. Lower glume apex acuminate. Upper glume lanceolate, 7.5–9.5 mm long, 0.8–0.9 length of adjacent fertile lemma, coriaceous, without keels, 3–5 -veined. Upper glume lateral veins ribbed. Upper glume surface asperulous, rough on veins. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate or oblong, 9–10.5 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma surface scaberulous, rough above or on veins. Lemma apex acute, awned, 1 -awned. Principal lemma awn 1–3 mm long overall. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3, 2–2.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. Western Asia. Iran. **Indian Subcontinent.** Pakistan, West Himalaya.

TDWG4. Jammu Kashmir.

Elymus stipifolius (Czern. ex Nevski) A. Melderis. *Bot. J. Linn. Soc.*, 76(4): 376 (1978).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, T.G. Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983) (as *Elytrigia*).

Basionym or Replaced Name: *Agropyron stipifolium* Czern. ex Nevski, *Fl. URSS* 2: 637 (1934)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: 3 IT: (LE).

HT: *Czernjaev s.n.*, Jul 1864, Ukraine: Kharkov: Sukhoj Yar (LE). Orig. label: "Circa Charcovian, Suchoj jar,...".

Recent Synonyms: *Elytrigia stipifolia* (Nevski) Nevski, *Acta Inst. Bot. Acad. Sc. URSS, Ser. 1 Fasc. 2*, 79 (1936).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. folium, leaf. The leaf-blades resemble those of *Stipa*.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 40–90 cm long. Leaf-sheaths glabrous on surface or pubescent, outer margin hairy. Ligule an eciliate membrane. Leaf-blades flat or convolute, 2–3 mm wide, stiff. Leaf-blade surface scaberulous, rough adaxially. Leaf-blade margins cartilaginous, scabrous. Leaf-blade apex pungent.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 7–15 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 12–17 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes smooth.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 7–9 mm long, 1 length of upper glume, coriaceous, without keels, 5–7 -veined. Lower glume apex acute. Upper glume lanceolate, 7–11 mm long, 0.75–1 length of adjacent fertile lemma, coriaceous, without keels, 5–7 -veined. Upper glume apex acute.

Florets. Fertile lemma oblong, 10–11 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma apex acute, muticous. Palea keels ciliolate, adorned above. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 5–6 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG), Continent. Europe, Temperate Asia.

Region. Eastern Europe.

Country /Province /State. Krym, Central European Russia, East European Russia, Northwest European Russia, Ukraine. **Caucasus.** North Caucasus, Transcaucasus.

TDWG4.

Elymus strictus (Keng) A.Löve. *Feddes Repert.* 95: 458 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria stricta* Keng, *Acta Univ. Nankin. Sci. Nat.* 3: 68 (1963)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Gansu: Sucao, 9 July 1942, T.P. Wang 13032 (HT: IFP).

Recent Synonyms: *Elymus varius* (Keng ex Keng & S.L. Chen) Tzvelev, *Rast. Tsentr. Azii* 4: 219 (1968).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 566 & 567 as *Elymus strictus* var. *strictus* & *Elymus strictus* var. *crassus*).

Derivation (Clifford & Bostock 2007): L. erect. Inflorescence branches erect.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Culms erect, 50–60 cm long, 3 -noded. Leaf-sheaths subequal to internodes, glabrous on surface. Ligule an eciliate membrane, 0.5 mm long, truncate. Leaf-blades involute, 8–16 cm long, 4–6 mm wide, light green or glaucous. Leaf-blade surface pubescent, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight, bilateral, 14–18 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, regular, 2 -rowed. Rhachis internodes 6–11(–20) mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 15–20 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1–1.5 mm long, pubescent. Floret callus pubescent.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate or oblong, 7–10 mm long, coriaceous, without keels, 5–7 -veined. Lower glume lateral veins prominent. Lower glume surface asperulous, rough on veins. Lower glume apex acuminate, muticous or mucronate. Upper glume lanceolate or oblong, 8–12 mm long, coriaceous, without keels, 5–7 -veined. Upper glume surface asperulous, rough on veins. Upper glume apex acuminate, muticous or mucronate.

Florets. Fertile lemma lanceolate or oblong, 9–10 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface scabrous, rough on veins. Lemma margins pubescent, hairy below. Lemma apex awned, 1 -awned. Principal lemma awn straight or curved, 14–22 mm long overall. Palea 1 length of lemma, 2 -veined. Palea surface puberulous, hairy on back, hairy above. Palea apex emarginate or truncate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, hairy at apex, apex unappendaged. Hilum linear.

$2n = 28$ (2 refs TROPICOS).

Distribution (TDWG), Continent. Temperate Asia.

Country /Province /State. **China.** China South Central, Inner Mongolia, China North-Central, Qinghai, China Southeast, Tibet.

TDWG4. Gansu, Shaanxi, Shanxi. Henan. Guizhou, Sichuan, Yunnan.

Elymus svensoni Church. *Rhodora*, 69: 134 (1967).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *G.L. Church* 2527, 6 Jul 1959, USA: Tennessee: Davidson Co. (BRU; IT: GH, US-2489482).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (313).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms 80–100 cm long, 2 mm diam. Leaf-sheaths mostly shorter than adjacent culm internode. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades 15–25 cm long, 6–10 mm wide. Leaf-blade surface pilose, sparsely hairy, hairy adaxially. Leaf-blade margins smooth or scaberulous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, arcuate, bilateral, 12–16 cm long. Rhachis ciliate on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear, 8–10 mm long. Spikelets spreading, in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–5 fertile florets, with a barren rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, dorsally compressed, 10–15 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes both absent or obscure or two, persistent, similar, shorter than spikelet. Lower glume subulate, 1–18 mm long. Upper glume subulate, 1–18 mm long.

Florets. Fertile lemma lanceolate, 9–10 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma apex awned, 1 -awned. Principal lemma awn spreading, 12–20 mm long overall. Palea 8–9 mm long. Palea surface pilose, hairy on back. Palea apex truncate.

Flower and Fruit. Lodicules 2, ciliate, 2-toothed. Anthers 3, 5 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. Southeastern USA. Tennessee.

Elymus sylvaticus (Keng & S.L. Chen) S.L. Chen. *Bull. Nanjing Bot. Gard. Mem. Sun Yat Sen*, 1987: 9 (1988).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria sylvatica* Keng & S.L. Chen, *Acta Univ. Nankin. Sci. Nat.* 3(1): 36, f. 1 (1963)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Xinjiang: Qinghe, forests, 1800–3300 m, 2 Aug. 1956, *Xinjiang Exped. 1236* (HT: PE).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 582).

Derivation (Clifford & Bostock 2007): *L. silva*, wood; *-ica*, belonging to. Growing in woodlands.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms geniculately ascending, 80–120 cm long, 3 mm diam., 4–5 -noded, with 0.66–0.75 of their length below uppermost node. Culm-internodes distally glabrous. Leaf-sheaths mostly shorter than adjacent culm internode, smooth, glabrous on surface. Ligule an eciliate membrane, 0.5 mm long, scarious, truncate. Leaf-blades 13–25 cm long, 6–9 mm wide. Leaf-blade surface scabrous, rough adaxially, glabrous. Leaf-blade margins scabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 7.5–8.5 cm long. Rhachis flattened, ciliate on margins. Spikelet packing broadside to rhachis, regular, 2 -rowed. Rhachis internodes 4–5 mm long. Spikelets solitary. Fertile spikelets sessile.

Sterile Spikelets. Basal sterile spikelets rudimentary, 1–3 in number.

Fertile Spikelets. Spikelets comprising 3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 12–14 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1.5 mm long, pubescent. Floret callus pubescent.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate, 8–10 mm long, coriaceous, much thinner on margins, without keels, 3–5 -veined. Lower glume surface scabrous. Lower glume apex acute or acuminate, muticous or awned, 1 -awned, awn 1–2 mm long. Upper glume lanceolate, 8–10 mm long, coriaceous, with membranous margins, without keels, 3–5 -veined. Upper glume surface scabrous. Upper glume apex acute or acuminate, muticous or awned, 1 -awned, awn 1–2 mm long.

Florets. Fertile lemma lanceolate, 9–10 mm long, coriaceous, much thinner on margins, without keel, 5 -veined, more than 3-veined. Lemma lateral veins obscure. Lemma surface puberulous. Lemma apex awned, 1 -awned. Principal lemma awn 1–3 mm long overall, 1 length of lemma. Palea 1 length of lemma, 2 -veined. Palea surface pubescent, hairy on back, hairy above. Palea apex emarginate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, 1.8 mm long, membranous. Anthers 3, 2 mm long, yellow. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, 3 mm long, dark brown, hairy at apex, apex unappendaged. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Qinghai, Xinjiang.

Elymus tangutorum (Nevski) Hand.-Mazz. *Symb. Sin. Pt. 7*: 1292 (1936).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Clinelymus tangutorum* Nevski, *Izv. Bot. Sada Akad. Nauk SSSR* 30: 647 (1932)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China, Kansu: Piasezky (LE holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): of the Tangutes the inhabitants of north-eastern Tibet. From Tibet.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, robust, 100–130 cm long. Leaf-sheaths scaberulous. Ligule an eciliate membrane. Leaf-blades 5–9 mm wide. Leaf-blade surface scaberulous, rough on both sides.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 10–18 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–15 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 9–12 mm long, 1 length of upper glume, coriaceous, without keels, 5 -veined. Lower glume surface asperulous, rough on veins. Lower glume apex acuminate, awned, 1 -awned, awn 2–4 mm long. Upper glume lanceolate, 9–12 mm long, 1.1 length of adjacent fertile lemma, coriaceous, without keels, 5 -veined. Upper glume surface asperulous, rough on veins. Upper glume apex acuminate, awned, 1 -awned, awn 2–4 mm long.

Florets. Fertile lemma lanceolate, 8–11 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scaberulous. Lemma apex acute, awned, 1 -awned. Principal lemma awn 8–13 mm long overall. Palea 1 length of lemma. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 42$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. China. China South Central, Inner Mongolia, China North-Central, Qinghai, Tibet, Xinjiang. **Indian Subcontinent.** Eastern Himalaya, Nepal.

TDWG4. Gansu, Shanxi, Guizhou, Hubei, Sichuan, Yunnan. Bhutan.

Elymus tauri (Boiss. & Bal.) A. Melderis. *Notes Roy. Bot. Gard. Edinburgh*, 42(1): 81 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.Tsvelev, *Grasses of the Soviet Union* (1983) (as *Elytrigia*).

Basionym or Replaced Name: *Agropyron tauri* Boiss. & Balansa, *Bull. Soc. Bot. France* 4: 307 (1857)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *Th. Kotschy 233b*, 22 Jul 1855, Iter Cilicicum in Tauri alpes "Bulgar Dagh.": Bulgar Magara (LE). ST?.

IT: *B. Balansa [826]*, 11 Jul 1855, Turkey: Taurus Mts. Port. Ciliciens (U-1129913, US-153517, US-1018205).

Recent Synonyms: *Elytrigia tauri* (Boiss. & Bal.) Tsvelev, *Novosti Sist. Vyssh. Rast.*, 10: 30 (1973).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): From Tauria, now the Crimea, Ukraine.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Culms erect or geniculately ascending, 35–55 cm long. Culm-internodes distally glabrous. Lateral branches lacking. Leaf-sheaths glabrous on surface. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades filiform, involute or convolute, 5–15 cm long, 2–3 mm wide. Leaf-blade surface pubescent, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, flexuous, bilateral, 4–8 cm long, bearing few fertile spikelets, bearing 4–7 fertile spikelets on each. Rhachis flattened, smooth on margins. Spikelet packing broadside to rhachis, distant. Spikelets ascending, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or cuneate, laterally compressed, 10–11 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume oblong, 5–8 mm long, 1 length of upper glume, coriaceous, much thinner on margins, without keels, 5–7 -veined. Lower glume lateral veins ribbed. Lower glume apex obtuse. Upper glume oblong, 5–8 mm long, 0.5–0.8 length of adjacent fertile lemma, coriaceous, with hyaline margins, without keels, 5–7 -veined. Upper glume lateral veins ribbed. Upper glume apex obtuse.

Florets. Fertile lemma lanceolate to oblong, 8–9 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma apex emarginate or truncate or acute, mucicous. Palea keels ciliate, adorned above. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Caucasus, Western Asia. Iran.

TDWG4.

Elymus tenuispicus (J.L. Yang & Y.H. Zhou) S.L. Chen. *Novon* 7(3): 229 (1997).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, U. Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria tenuispica* J.L. Yang & Y.H. Zhou, *Novon* 4(3): 307–309, f. 1–2 (1994). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Xizang: Eluo, Changdu to Ruiwuqi highway 22 km., 3580 m, 25 Sept. 1989, J.L. Lang & B.R. Lu 890955 (HT: SAUT).

Illustrations (Journals): *Novon* (4:309, Fig.1 (1994), as *Roegneria*).

Derivation (Clifford & Bostock 2007): *L. tenuis*, narrow; *spica*, a point; hence, in particular, an ear or spike of grain. Inflorescence a narrow-lanceolate spike or panicle.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Butt sheaths persistent and investing base of culm, with fibrous dead sheaths. Culms erect, 35–75 cm long, 0.5–1 mm diam., 4–5 -noded. Culm-internodes distally glabrous. Culm-nodes pubescent. Leaf-sheaths subequal to internodes or longer than adjacent culm internode, hirsute. Ligule an eciliate membrane, 0.5 mm long, truncate. Leaf-blades flat or involute, 15–20 cm long, 3–4 mm wide. Leaf-blade surface scabrous, rough abaxially, hirsute, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight or arcuate, bilateral, 9.2–10.5 cm long. Rhachis flattened, glabrous on surface, ciliate on margins. Spikelet packing broadside to rhachis. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 13–16 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent. Floret callus pubescent. Floret callus hairs 0.6–0.8 mm long.

Glumes. Glumes persistent, similar. Lower glume lanceolate, 5–6.5 mm long, coriaceous, much thinner on margins, without keels, 3–4 -veined. Lower glume surface hirsute. Lower glume apex acuminate, mucronate. Upper glume lanceolate, 6.5–7.5 mm long, coriaceous, with membranous margins, without keels, 4–5 -veined. Upper glume surface hirsute. Upper glume apex acuminate, mucronate.

Florets. Fertile lemma oblong, 7.5–8 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scabrous, rough above, pubescent, hairy below. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 10–20 mm long overall. Palea 0.9–1 length of lemma, 2 -veined. Palea keels ciliate, adorned above, with 0.5–0.75 of their length adorned. Palea surface pubescent, hairy on back. Palea apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 2–2.5 mm long, yellow. Caryopsis with adherent pericarp, oblong, 5.5 mm long, light brown, hairy at apex.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Tibet.

TDWG4.

Elymus texensis J.J.N. Camp. *Sida*, Vol. 22 No. 1 : 488 (2006).

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: USA: Texas: Gillespie Co.: Serpentine Mounds, ca 9 mi N of Willow City, hilly area vegetated mainly with grasses, 18 May 1966, E.S. Nixon 531 (HT: TEX-5322).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (313).

Illustrations (Journals): *Sida* (22:490, 491(2006)).

Derivation (Clifford & Bostock 2007): L. *-ensis*, denoting origin. From Texas, USA.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 70–110 cm long, 4–6 -noded. Leaf-sheaths glabrous on surface. Leaf-sheath auricles absent or falcate, 0–1 mm long. Ligule an eciliate membrane, 1 mm long, erose. Leaf-blades flat or involute, 2–9 mm wide. Leaf-blade surface scaberulous, rough adaxially, glabrous or pubescent, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight or arcuate, bilateral, 9–10 cm long, 20–25 mm wide. Rhachis ciliate on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, (5–)7–15(–22) mm long. Spikelets appressed, in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–8 fertile florets, with a barren rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, dorsally compressed, 25–40 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume subulate, 14–24 mm long, 0–1 -veined. Lower glume lateral veins absent. Upper glume subulate, 14–25 mm long, 0–1 -veined. Upper glume primary vein absent or distinct. Upper glume lateral veins absent.

Florets. Fertile lemma lanceolate, 8–12 mm long, coriaceous, without keel, more than 3-veined. Lemma surface glabrous. Lemma apex awned, 1 -awned. Principal lemma awn straight or curved, 8–25 mm long overall. Palea 7–11 mm long.

Flower and Fruit. Anthers 3, 4.5–6 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. South-central USA. Texas.

Elymus thomsonii (Hook. f.) A. Melderis. *Enum. Fl. Pl. Nepal*, 1: 132 (1978).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online (as *Agropyron*), N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960) (as *Agropyron*).

TYPE from India. **Basionym or Replaced Name:** *Agropyron thomsonii* Hook. f., *Fl. Brit. Ind.* 7: 370 (1896). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: India, Kunawur to Piti: Thomson (K holo).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths pubescent. Culms 40–100 cm long. Ligule an eciliate membrane. Leaf-blades 5–15 cm long, 1–3 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 3–15 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 10–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 6–8 mm long, 0.75 length of upper glume, coriaceous, much thinner on margins, without keels, 5–7 -veined. Lower glume lateral veins ribbed. Lower glume surface asperulous, rough on veins. Lower glume apex acute or acuminate. Upper glume lanceolate, 7–10 mm long, coriaceous, with membranous margins, without keels, 5–7 -veined. Upper glume lateral veins ribbed. Upper glume surface asperulous, rough on veins. Upper glume apex acute or acuminate.

Florets. Fertile lemma lanceolate or ovate, 6–9 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface pubescent. Lemma apex acute, awned, 1 -awned. Principal lemma awn 10–12 mm long overall. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent. Nepal.

TDWG4. Uttah Pradesh.

Elymus tianschanigenus S.K. Cherepanov. *Sosud. Rast. SSSR* : 351 (1981).

Accepted by: S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from Russia. **Basionym or Replaced Name:** *Agropyron tianschanicum* Drobov, *Key Pl. Envir. Tashkent*, ed. Popov, 41 (1923). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: : Based on *Agropyron tianschanicum* ; Russia, Syr-Darja: Popov 1254.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Middle Asia, China. Kazakhstan, Kirgizistan, Turkmenistan, Uzbekistan. Xinjiang.

TDWG4.

Elymus tibeticus (Melderis) G. Singh. *Taxon* 32(4): 640 (1983).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Agropyron tibeticum* Melderis, *Grass. Burma, Ceylon, India & Pakistan* 696 (1960)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Xizang: Mongbo Province, Timba, Tsangpo Valley, 9700 ft, 6 July 1938, *F. Ludlow, G. Sherriff & G. Taylor 5160* (HT: BM).

Illustrations (Books): H.J.Noltie, *The Grasses of Bhutan* (2000).

Derivation (Clifford & Bostock 2007): L. -ica, belonging to. From Tibet.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths pubescent. Culms 70–100 cm long, 3–4-noded. Culm-nodes pubescent. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 0.2–0.4 mm long, truncate. Leaf-blades 12–16 cm long, 3–6 mm wide. Leaf-blade surface scabrous, rough abaxially, pilose, sparsely hairy, hairy adaxially. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect or ascending, bilateral, 10–16 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 10–16 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 7–8.5 mm long, 0.8–1 length of upper glume, coriaceous, much thinner on margins, without keels, 5–7 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous, rough on veins. Lower glume apex attenuate, mucicous or awned, 1 -awned, awn 0–6 mm long. Upper glume lanceolate, 8.5–10 mm long, 1 length of adjacent fertile lemma, coriaceous, with hyaline margins, without keels, 5–7 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous, rough on veins. Upper glume hairs 2 mm long. Upper glume apex attenuate, mucicous or awned, 1 -awned, awn 0–6 mm long.

Florets. Fertile lemma oblong, 8–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma lateral veins ribbed. Lemma surface puberulous, hairy above. Lemma apex acute, awned, 1 -awned. Principal lemma awn straight or curved, 10–17 mm long overall. Palea 1 length of lemma. Palea keels ciliolate. Palea surface puberulous, hairy on back, hairy above. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2–2.3 mm long, yellow. Stigmas 2. Caryopsis with adherent pericarp.

$2n = 28$ (6 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. China. China South Central, Tibet. **Indian Subcontinent.** Eastern Himalaya.

TDWG4. Yunnan. Bhutan.

Elymus tilcarensis (J.H. Hunziker) A. Love. *Feddes Repert.* 95: 473 (1984).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Argentina. **Basionym or Replaced Name:** *Agropyron tilcarensis* J.H. Hunz., *Kurtziana* 3: 121–125 (1966)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *J.H.Hunziker 8082*, 1 Mar 1965, Argentina: Jujuy: Dep. Tilcara: Tilcara, a unos 800 m al N del Pueblo en vega de *Scirpus* y *A. tilcarensis*, 2470 m (CORD; IT: BAA, BAB, LP, SI, UC).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From Tilcara, Argentina.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths purple. Basal innovations intravaginal. Culms erect or geniculately ascending, 40–80 cm long, 2–4 -noded. Culm-nodes glabrous. Leaf-sheaths striately veined, smooth, glabrous on surface. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 0.5 mm long, truncate. Leaf-blades 10–15 cm long, 2–5.5 mm wide. Leaf-blade surface ribbed, grooved adaxially, scabrous, rough adaxially or on both sides. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 6–16 cm long, bearing 7–25 fertile spikelets on each. Rhachis ciliate on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, 4–27 mm long. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 12–18 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1.4–2.2 mm long.

Glumes. Glumes collateral, persistent, similar, reaching apex of florets. Lower glume lanceolate, 10–15.5 mm long, 1 length of upper glume, coriaceous, without keels, 5–7 -veined. Lower glume lateral veins prominent. Lower glume apex acuminate, awned, 1 -awned, awn 0.9–2.3 mm long. Upper glume lanceolate, 10–15.5 mm long, coriaceous, without keels, 5–7 -veined. Upper glume lateral veins prominent. Upper glume apex acuminate, awned, 1 -awned, awn 0.9–2.3 mm long.

Florets. Fertile lemma lanceolate, 11–16.5 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma surface scabrous, rough above. Lemma apex attenuate, awned, 1 -awned. Principal lemma awn 1.5–3 mm long overall. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 1.8–2.4 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, lanceolate, sulcate on hilar side, 5–6 mm long, hairy at apex.

$2n = 28$ (2 refs TROPICOS).

Distribution (TDWG). Continent. South America.

Country /Province /State. Southern South America. Argentina Northwest.

TDWG4. Jujuy.

Elymus trachycaulus (Link) Gould ex Shinn. *Rhodora* 56: 28 (1954).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from USA. **Basionym or Replaced Name:** *Triticum trachycaulum* Link, *Hort. Berol.* 2: 189 (1833)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: North America: American borealem occidentalem: semina ex itinere, *Richardson*.

Recent Synonyms: *Elymus subsecundus* (Link) Á.Löve & D.Löve, *Taxon*, 13: 201 (1964). *Elymus violaceus* (Hornem.) Feilberg, *Meddel. Gronland, Biosci.* 15: 12 (1984)

Illustrations (Books): K.F.Best, et al, *Prairie Grasses* (1971) (45 & 47 as *Agropyron subsecundum* & *Agropyron trachycaulum*), M.E.Barkworth et al, *Flora of North America north of Mexico Vol 24 Poaceae*, part 1 (2007) (323as subspecies *trachycaulus*, *virescens* & *subsecundus*).

Derivation (Clifford & Bostock 2007): Gk. trachys, rough; kaulos, stem. Nodes scabrid.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 40–110 cm long. Leaf-sheaths glabrous on surface or puberulous. Ligule an eciliate membrane, 1 mm long. Leaf-blades 2–6 mm wide. Leaf-blade surface smooth or scaberulous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 6–15 cm long. Rhachis flattened. Spikelet packing broadside to rhachis, 0.5 their length apart. Rhachis internodes linear, 6–20 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets elliptic to oblong, laterally compressed, 12–24 mm long, breaking up at maturity, disarticulating above glumes but not between florets. Rhachilla internodes 3 mm long.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, 9–15 mm long, 1 length of upper glume, membranous, without keels, 3–7 -veined. Lower glume apex acute, muticous or mucronate. Upper glume lanceolate, 9–15 mm long, 1 length of adjacent fertile lemma, membranous, without keels, 3–7 -veined. Upper glume apex acute, muticous or mucronate.

Florets. Fertile lemma lanceolate to oblong, 8–13 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma lateral veins obscure. Lemma apex acute, muticous or awned, 1 -awned. Principal lemma awn 1–3 mm long overall. Palea 1 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (10 refs TROPICOS).

Distribution (TDWG). Continent. Europe, Temperate Asia, North America.

Region. Northern Europe (*), Eastern Europe.

Country /Province /State. : GB Aliens (Ryves et al). Belarus, Estonia, Latvia, Lithuania, Baltic States, Central European Russia, East European Russia, South European Russia, Northwest European Russia, Ukraine, Siberia, Russian far east, **Middle Asia, China.** Buryatiya, Chita, Irkutsk, Krasnoyarsk, Tuva. Kamchatka, Kuril Is, Magadan, Primorye, Sakhalin. Turkmenistan. Inner Mongolia, China North-Central, Qinghai. **Subarctic America, Western Canada, Eastern Canada, Northwest USA, North-central USA, Northeast USA, Southwestern USA, South-central USA, Southeastern USA, Mexico.** Aleutian Is, Yukon, Northwest Territories, Nunavut, Greenland. Alberta, British Columbia, Manitoba, Saskatchewan. Labrador, New Brunswick, Newfoundland, Nova Scotia, Ontario. Colorado, Idaho, Oregon, Washington, Wyoming. Illinois, Iowa, Kansas, Minnesota, Missouri, North Dakota, Nebraska, South Dakota, Wisconsin. Connecticut, Indiana, Maine, Massachusetts, Michigan, Ohio, New Hampshire, New Jersey, New York, Pennsylvania, Vermont, West Virginia. Arizona, California, Nevada, Utah. New Mexico. Central Mexico, Northeast Mexico, Gulf (Mexico), Northwest Mexico, Southwest Mexico.

TDWG4. Beijing, Gansu. Distrito Federal, Mexico State, Morelos, Puebla, Tlaxcala. Aguascalientes, Coahuila, Chihuahua, Durango, Guanajuato, Hidalgo, Neuvo Leon, Queretaro, Tamaulipas, Zacatecas. Baja California. Oaxaca.

Elymus transhyrcanus (Nevski) Tsvelev. *Novosti Sist. Vyssh. Rast.*, 9: 61 (1972).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Roegneria transhyrcana* Nevski, *Trudy Sredne-Aziatsk. Gosud. Univ., Ser. 8b, Bot.* 17: 70 (1934)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Russia, Kopet-Dagh: Borisova 725 (LE holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. trans, on the other side. Beyond Hercynia, that is northwest Iran.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 40–100 cm long. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades flat or involute, 3–5 mm wide. Leaf-blade surface scabrous, glabrous or pilose, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 7–15 cm long. Rhachis flattened, scabrous on surface. Spikelet packing broadside to rhachis, lax. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, compressed slightly, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent, hairy on the margins.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 7–11 mm long, 1 length of upper glume, coriaceous, without keels, 3–7 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous, rough on veins. Lower glume apex acuminate, muticous or awned, 1 -awned, awn 0.5–1 mm long. Upper glume lanceolate, 7–11 mm long, 0.8–1 length of adjacent fertile lemma, coriaceous, without keels, 3–7 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous, rough on veins. Upper glume apex acuminate, muticous or awned, 1 -awned, awn 0.5–1 mm long.

Florets. Fertile lemma lanceolate to oblong, 8.5–11 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma surface scaberulous, rough above. Lemma apex acute, mucicous or awned, 1 -awned. Principal lemma awn 0–5 mm long overall. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$N = 21$ (1 ref TROPICOS). $2n = 42$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Middle Asia, Caucasus, Western Asia. Turkmenistan, Tadjikistan. Iran. TDWG4.

Elymus trichospiculus (L.B. Cai) S.L. Chen & G.H. Zhu. *Novon* 12(3): 428 (2002).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria trichospicula* L.B. Cai, *Bull. Bot. Res., Harbin* 14(4): 340 (1994). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China, Qinghai, Yushu: Wei 22414 (NWBI holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk *thrix*, hair; L. *spica*, a point; hence, in particular, an ear or spike of grain; *-ula*, diminutive. Awn relatively short compared with the length of the lemma.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms erect or geniculately ascending, 90–110 cm long, 1.5–2.5 mm diam., 4–5 -noded. Culm-internodes distally glabrous. Leaf-sheaths hirsute. Ligule an eciliate membrane, 0.5 mm long. Leaf-blades 6–16 cm long, 2–4.5 mm wide. Leaf-blade surface pilose, hairy on both sides.

Inflorescence. Inflorescence composed of racemes. Peduncle pubescent above. Racemes 1, single, bilateral, 8–12 cm long. Rhachis flattened, pubescent on surface, scabrous on margins. Spikelet packing broadside to rhachis, lax. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 12–18 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1.5–2.5 mm long, scaberulous.

Glumes. Glumes persistent, similar. Lower glume lanceolate, 5–6 mm long, coriaceous, without keels, 3 -veined. Lower glume surface hispidulous, hairy on veins. Lower glume apex acuminate, mucicous or mucronate. Upper glume lanceolate, 5–6 mm long, coriaceous, without keels, 3 -veined. Upper glume surface hispidulous, hairy on veins. Upper glume apex acuminate, mucicous or mucronate.

Florets. Fertile lemma lanceolate, 9–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface villous. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn straight, 6–12 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels ciliate, adorned above. Palea surface glabrous. Palea apex truncate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 2 mm long, yellow. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Qinghai.

Elymus tridentatus (C. Yen & J.L. Yang) S.L. Chen. *Novon* 7(3): 229 (1997).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, U. Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria tridentata* C. Yen & J.L. Yang, *Novon* 4(3): 310–313, f. 1–2 (1994). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Qinghai: Wenquan, Xinghai, km 337 on highway 214, rocky slope, 3750 m, 19 Sept. 1992, *J.L. Yang et al.* 9202014 (HT: SAUT; IT: MO-2354869).

Illustrations (Journals): *Novon* (4:311, Fig.1 (1994), as *Roegneria*).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 42–65 cm long, 1.5–2 mm diam., 2–3 -noded. Culm-internodes smooth, distally glabrous. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 0.5 mm long, truncate. Leaf-blades involute, 5–7 cm long, 2 mm wide. Leaf-blade surface pubescent, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight, bilateral, 5–11.5 cm long, 5 mm wide, bearing 6–14 fertile spikelets on each. Rhachis flattened, glabrous on surface. Spikelet packing broadside to rhachis. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 10–13 mm long, 2 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1.5–2 mm long, pubescent. Floret callus pubescent.

Glumes. Glumes persistent, similar. Lower glume oblong, 4–5 mm long, coriaceous, without keels, 3 -veined. Lower glume surface smooth or asperulous, rough on veins. Lower glume apex obtuse. Upper glume oblong, 5–6.5 mm long, coriaceous, without keels, 3 -veined. Upper glume surface smooth or asperulous, rough on veins. Upper glume apex obtuse.

Florets. Fertile lemma oblong, 7–9 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface pubescent, hairy below. Lemma margins pubescent. Lemma apex dentate, 3 -fid, with lobes 0.5–1 mm long, acuminate, muticous. Palea 1 length of lemma, 2 -veined. Palea keels ciliate, adorned above, with 0.33–0.5 of their length adorned. Palea surface scabrous. Palea apex truncate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 2 mm long, black. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Qinghai.

Elymus troctolepis (Nevski) Tsvelev. *Novosti Sist. Vyssh. Rast.* 9: 61 (1972).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.Tsvelev, *Grasses of the Soviet Union* (1983).

Basionym or Replaced Name: *Roegneria troctolepis* Nevski, *Fl. URSS* 2: 623 (1934)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: (LE).

HT: *G. Woronow s. n.*, 17 Aug 1931, [Caucasus: Georgia]: Abkhazia: Mt. Akhibokh: elev. 1800–1900 m (LE). Orig. label: Abkhazia, uroch. Mtsaga, u podnozh'ya gory Akhibokh, kamenistye sclony (izvestn.), 1800–1900 m..

Recent Synonyms: *Agropyron troctolepis* (Nevski) Melderis, K. H. Rechinger, *Fl. Iran., Lief.* 70, 182 (1970).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. troktos, gnawed; lepis, scale. Lemma irregularly dentate.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms erect, 50–100 cm long. Culm-internodes glaucous, smooth. Ligule an eciliate membrane. Leaf-blades 10–20 cm long, 3–7 mm wide, glaucous. Leaf-blade surface scabrous, rough adaxially. Leaf-blade margins scabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, ascending or drooping, bilateral, 6–15 cm long. Rhachis flattened, scaberulous on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear, 5–15 mm long. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–16 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes sparsely hairy.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume oblong, 7–9 mm long, 1 length of upper glume, chartaceous, without keels, 5 -veined. Lower glume apex erose, truncate or obtuse. Upper glume oblong, 7–9 mm long, 0.75 length of adjacent fertile lemma, chartaceous, without keels, 5 -veined. Upper glume apex erose, truncate or obtuse.

Florets. Fertile lemma elliptic or oblong, 10–11 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma apex emarginate, muticous. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Caucasus, Western Asia. Iran.

TDWG4.

Elymus tschimganicus (Drob.) Tsvelev, orth var. *Rast. Tsentr. Azii* 4: 221 (1968).

Regarded by K as a synonym.

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online (as *E. czimganicus*), U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Agropyron czimganicum* Drobov, *Key Pl. Envir. Tashkent*, ed. Popov, 40 (1923). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Russia, Tashkent: Popov 1266 ; Russia, Tashkent: Popov 1270.

Recent Synonyms: *Elymus czimganicus* var. *glabrispiculus* D.F.Cui, *Bull. Bot. Res. North-East. Forest. Inst.*, 10(3): 30 (1990).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. *-ica*, belonging to. From the Chimgan Range, Uzbekistan.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Rhizomes short. Butt sheaths persistent and investing base of culm, with compacted dead sheaths. Culms geniculately ascending, 30–60 cm long. Ligule an eciliate membrane. Leaf-blades involute, 8–16 cm long, 2–3 mm wide, glaucous. Leaf-blade surface scabrous, rough adaxially, glabrous or puberulous, hairy adaxially. Leaf-blade margins scabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, flexuous, bilateral, 6–9 cm long, bearing 4–9 fertile spikelets on each. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear, 10–12 mm long. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 12–15 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume elliptic, 4–8 mm long, 1 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acute, muticous or mucronate. Upper glume elliptic, 4–8 mm long, 0.5–0.75 length of adjacent fertile lemma, coriaceous, without keels, 3–5 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex acute, muticous or mucronate.

Florets. Fertile lemma oblong, 9–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma apex acute, awned, 1 -awned. Principal lemma awn recurved at base of limb, 20–30 mm long overall. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 42$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Middle Asia, China, Russia. Kazakhstan, Kirgizistan, Turkmenistan, Uzbekistan. Qinghai, Xinjiang.

TDWG4.

Elymus tsukushiensis Honda. *Bot. Mag., Tokyo*, 50: 391 (1936).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), T.Koyama, *Grasses of Japan and its neighboring regions* (1987) (as *Agropyron*).

TYPE from Japan. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *K. Nakajima* 9, ST: *K. Nakajima* 6, 1933, Ins. Genkaijima, prov. Chikuzen ST: *K. Nakajima* 96, 1935, Izuhara, prov. Tsushima.

Illustrations (Books): T.Koyama, *Grasses of Japan and its neighbouring regions* (1987) (66, Fig 19 as *Agropyron*), C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (358 as *Agropyron mayebaranum*), C-C Hsu, *Taiwan Grasses* (1975) (as *Agropyron mayebaranum*), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (337).

Derivation (Clifford & Bostock 2007): L. *-ense*, denoting origin. From Chikuzen Province, Japan.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 30–100 cm long, 2–3.5 mm diam., 4–6 -noded. Leaves basal and cauline. Leaf-sheaths glabrous on surface or pubescent, outer margin hairy. Ligule an eciliate membrane, 0.5–0.7 mm long, truncate. Leaf-blades 15–40 cm long, 3–10 mm wide. Leaf-blade surface scaberulous. Leaf-blade apex acute.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, ascending, bilateral, 10–25 cm long, 8–12 mm wide. Rhachis flattened, scabrous on margins, glabrous on margins or ciliate on margins. Spikelet

packing broadside to rhachis. Rhachis internodes linear, 10–20 mm long. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15–25 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 2–2.5 mm long, pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 4–6 mm long, 0.75–0.8 length of upper glume, coriaceous, without keels, 3 -veined. Lower glume primary vein scabrous. Lower glume apex acute, muticous or awned, 1 -awned, awn 2–5 mm long. Upper glume lanceolate, 5–8 mm long, coriaceous, without keels, 5 -veined. Upper glume primary vein scabrous. Upper glume apex acute, muticous or awned, 1 -awned, awn 2–5 mm long.

Florets. Fertile lemma oblong, 6–10 mm long, coriaceous, much thinner on margins, 5 -veined, more than 3-veined. Lemma lateral veins ribbed. Lemma surface glabrous or pilose. Lemma apex acute, awned, 1 -awned. Principal lemma awn straight or flexuous, 20–40 mm long overall. Palea lanceolate. Palea keels approximate (above), winged, narrowly winged, ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Caryopsis with adherent pericarp.

$2n = 28$ (1 ref TROPICOS), or 42 (6 refs TROPICOS), or 48 (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China, Eastern Asia. Inner Mongolia, China North-Central, Qinghai, China Southeast, Xinjiang. Japan, Korea, Nansei-Shoto, Taiwan. Japan Hokkaido, or Honshu, or Shikoku, or Kyushu.

Hebei, Shaanxi, Shandong. Nei Mongol. Heilongjiang. Anhui, Fujian, Guangxi, Henan, Zhejiang. Guizhou, Hubei, Sichuan, Yunnan.

Elymus uralensis (Nevski) Tsvelev. *Novosti Sist. Vyssh. Rast.*, 8: 63 (1971).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Agropyron uralense* Nevski, *Izv. Glavn. Bot. Sada SSSR* 29: 89 (1930)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: LT: *I.Krashennikov, K.Afanas'ev 864*, 24 Aug 1929, Europ. Russia:[South Urals: Bashkiria]: Zilair dist. (LE). Orig. label: "Zilairskij kanton, lug v doline r. Sakmary nizhe sel. Nurgalino,...".

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From Ural Mountains, former Soviet Union.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Culms 50–100 cm long. Culm-internodes distally pubescent. Leaf-sheaths glabrous on surface or pubescent. Ligule an eciliate membrane. Leaf-blades 5–10 mm wide. Leaf-blade surface pubescent, sparsely hairy, hairy adaxially or on both sides.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 8.5–17 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 15 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes sparsely hairy.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 8–10 mm long, 1 length of upper glume, coriaceous, without keels, 5 -veined. Lower glume surface scabrous, rough on veins, glabrous or pubescent, hairy on veins. Lower glume apex acute, awned, 1 -awned, awn 3–7 mm long. Upper glume lanceolate, 8–10 mm long, 1 length of adjacent fertile lemma, coriaceous, without keels, 5 -veined. Upper glume surface scabrous, rough on veins, glabrous or pubescent, hairy on veins. Upper glume apex acute, awned, 1 -awned, awn 3–7 mm long.

Florets. Fertile lemma oblong, 8–11 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface puberulous. Lemma apex acute, awned, 1 -awned. Principal lemma awn 8–18 mm long overall. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Europe, Temperate Asia.

Region. Eastern Europe.

Country /Province /State. Central European Russia, East European Russia, North European Russia, South European Russia. Siberia, **Middle Asia, Caucasus, Western Asia, China, Mongolia.** Altay, Buryatiya, Chita, Irkutsk, Krasnoyarsk, Tuva. Kazakhstan, Turkmenistan. Iran.

Elymus versicolor A.P. Khokhryakov. *Biol. Rast. i Fl. Sev. Dal'n. Vostok.* (ed. M.T. Mazurenko): 13 (1981).

TYPE from Russia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Magadan, Seimczan: Khokhriakov et al (MHA holo).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Russian far east. Magadan.

Elymus villifer C.P. Wang & X.L. Yang. *Bull. Bot. Res. North-East. Forest. Inst.*, 4(4): 84 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Nei Mongol: Daqing Shan, swales of mountain valleys, 3 July 1963, C.P. Wang 6-11 (HT: NMAC).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. villi, long weak hairs; fero, bear.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 60–75 cm long, 1.5–2.5 mm diam. Leaf-sheaths longer than adjacent culm internode, hirsute. Ligule an eciliate membrane, 0.5 mm long. Leaf-blades 9–15 cm long, 3–6 mm wide. Leaf-blade surface hirsute, hairy on both sides.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 9–12 cm long. Spikelet packing broadside to rachis, 2 -rowed. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 6–10 mm long, breaking up at maturity, disarticulating below each fertile floret. Spikelet callus bearded, base truncate. Rhachilla internodes 2 mm long, pilose.

Glumes. Glumes similar, subequal in width, shorter than spikelet. Lower glume lanceolate, 4.5–7.5 mm long, 1 length of upper glume, coriaceous, much thinner on margins, without keels, 3–5 -veined. Lower glume surface puberulous, hairy on veins. Lower glume apex acuminate, awned, 1 -awned, awn 1.5–2.5 mm long. Upper glume lanceolate, 4.5–7.5 mm long, 0.66 length of adjacent fertile lemma, coriaceous, with membranous margins, without keels, 3–5 -veined. Upper glume surface puberulous, hairy on veins. Upper glume apex acuminate, awned, 1 -awned, awn 1.5–2.5 mm long.

Florets. Fertile lemma lanceolate to oblong, 7–11 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scaberulous, pilose, hairy above. Lemma margins ciliate. Lemma apex acute, awned, 1 -awned. Principal lemma awn 20–25 mm long overall. Palea 1 length of lemma. Palea surface pubescent, hairy on back, hairy above. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp. Hilum linear.

$2n = 42$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Inner Mongolia.

TDWG4.

Elymus villosus Muhl. ex Willd. *Enum. Hort. Berol.* 131 (1809).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.Tsvelev, *Grasses of the Soviet Union* (1983) (as *Elytrigia*).

TYPE from USA. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: USA: Pennsylvania, *Muhlenberg s.n.*

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (301).

Derivation (Clifford & Bostock 2007): L. villi, long weak hairs; -osa, abundance. The plant in whole or in part covered with long hairs.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms geniculately ascending, 60–100 cm long. Leaf-sheaths glabrous on surface or pilose. Ligule an eciliate membrane. Leaf-blades 10–20 cm long, 3–10 mm wide. Leaf-blade surface pubescent, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, arcuate, bilateral, 5–12 cm long. Rhachis flattened, ciliate on margins. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets cuneate, laterally compressed, 8–10 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes collateral, persistent, similar. Lower glume subulate, 12–20 mm long, 1 length of upper glume, coriaceous, 2 -veined. Lower glume surface pilose. Upper glume subulate, 12–20 mm long, coriaceous, 3–5 -veined. Upper glume surface pilose.

Florets. Fertile lemma elliptic, 7–9 mm long, 1.2 mm wide, coriaceous, 5–7 -veined, more than 3-veined. Lemma surface pilose. Lemma apex acute, awned, 1 -awned. Principal lemma awn straight, 10–30 mm long overall. Palea 1 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (2 refs TROPICOS).

Distribution (TDWG). Continent. North America.

Country /Province /State. Eastern Canada, Northwest USA, North-central USA, Northeast USA, South-central USA, Southeastern USA. Ontario, Quebec. Wyoming. Illinois, Iowa, Minnesota, Missouri, North Dakota, Nebraska, Oklahoma, South Dakota, Wisconsin. Connecticut, Indiana, Massachusetts, Michigan, Ohio, New Hampshire, New Jersey, New York, Pennsylvania, West Virginia. Texas. Alabama, Arkansas, Delaware, Kentucky, North Carolina, South Carolina, Tennessee, Virginia.

***Elymus virginicus* Linn. *Sp. Pl.* 84 (1753).**

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: CTP: *Campbell 95-001*, 4 Jul 1995, USA: Kentucky: Lexington (US). CT proposed by Campbell, *Taxon* 45: 128 (1996).

LT: "*4 virginicus*", USA: Virginia (LINN-100.5; IT: US-865955 (fragm. ex LINN & photo), US-865951 (fragms. ex S & photo, pl. on rt. a match for "*4 virginicus*")). LT designated by Hitchcock, *Contr. U.S. Natl. Herb.* 12: 124 (1908).

Illustrations (Books): K.F.Best, et al, *Prairie Grasses* (1971) (125), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (299, as var. *virginicus*, var. *jejunus*, var. *halophilus* & var. *intermedius*), F.W.Gould, *The Grasses of Texas* (1975) (166, Fig. 84).

Images: R.Darke, *The Encyclopaedia of Grasses for Liveable Landscapes* (2007);

Derivation (Clifford & Bostock 2007): L. -ica, belonging to. From Virginia, USA.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 60–120 cm long. Leaf-sheaths glabrous on surface. Leaf-sheath auricles falcate. Ligule an eciliate membrane, truncate. Leaf-blades 5–15 mm wide. Leaf-blade surface scabrous, glabrous or pubescent.

Inflorescence. Inflorescence composed of racemes, exserted or embraced at base by subtending leaf. Racemes 1, single, bilateral, 8–15 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–15 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes collateral, persistent, similar, reaching apex of florets. Lower glume lanceolate, gibbous, 10–15 mm long, 1 length of upper glume, coriaceous, without keels, 3–5 -veined. Lower glume surface scabrous. Lower glume apex acute, awned, 1 -awned, awn 10–15 mm long. Upper glume lanceolate, gibbous, 10–15 mm long, 1.2–1.5 length of adjacent fertile lemma, coriaceous, without keels, 3–5 -veined. Upper glume surface scabrous. Upper glume apex acute, awned, 1 -awned, awn 10–15 mm long.

Florets. Fertile lemma lanceolate to oblong, 8–10 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma surface glabrous or pilose. Lemma apex acute, awned, 1 -awned. Principal lemma awn 5–25 mm long

overall. Palea 1 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (2 refs TROPICOS).

Distribution (TDWG), Continent. Europe (*), North America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Western Canada, Eastern Canada, Northwest USA, North-central USA, Northeast USA, Southwestern USA, South-central USA, Southeastern USA.** British Columbia, Manitoba, Saskatchewan. New Brunswick, Nova Scotia, Ontario, Prince Edward I, Quebec. Colorado, Idaho, Montana, Washington, Wyoming. Illinois, Iowa, Kansas, Minnesota, Missouri, North Dakota, Nebraska, Oklahoma, South Dakota, Wisconsin. Connecticut, Indiana, Maine, Massachusetts, Michigan, Ohio, New Hampshire, New Jersey, New York, Pennsylvania, Vermont, West Virginia. Arizona. New Mexico, Texas. Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia.

Elymus viridulus (Keng & S.L. Chen) S.L. Chen. *Bull. Nanjing Bot. Gard. Mem. Sun Yat Sen*, 1987: 9 (1988).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria viridula* Keng & S.L. Chen, *Acta Univ. Nankin. Sci. Nat.* 3(1): 39, f. 2 (1963)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Xinjiang: Urumqi, mountain slopes, *R.C. Ching* 394 (HT: PE).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 582).

Derivation (Clifford & Bostock 2007): *L. viridis*, green; *-ula*, diminutive. Plant in whole or in part pale-green, often glaucous.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms geniculately ascending, 60–100 cm long, 1 mm diam., 4 -noded, with 0.66–0.75 of their length below uppermost node. Culm-internodes smooth, distally glabrous. Leaf-sheaths mostly shorter than adjacent culm internode or subequal to internodes, glabrous on surface or pubescent, with reflexed hairs. Ligule an eciliate membrane, 0.3 mm long, scarious, truncate. Leaf-blades flat or involute, 15–20 cm long, 2.5–4 mm wide. Leaf-blade surface scabrous, rough adaxially, glabrous, hairless except near base. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect or drooping, bilateral, 7.5–9.5 cm long. Rhachis flattened, ciliate on margins. Spikelet packing broadside to rhachis, regular, 2 -rowed. Rhachis internodes 6–13 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 14–28 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1–1.5 mm long, pubescent. Floret callus pubescent.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate, 7–10 mm long, coriaceous, much thinner on margins, 1-keeled, 4–6 -veined. Lower glume apex acuminate, awned, 1 -awned, awn 1–2 mm long. Upper glume lanceolate, 7–10 mm long, coriaceous, with membranous margins, 1-keeled, 4–6 -veined. Upper glume apex acuminate, awned, 1 -awned, awn 1–2 mm long.

Florets. Fertile lemma lanceolate or oblong, 10 mm long, coriaceous, much thinner on margins, without keel, 5 -veined, more than 3-veined. Lemma surface glabrous. Lemma margins scaberulous (above). Lemma apex awned, 1 -awned. Principal lemma awn straight, 2–6 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels ciliolate, adorned above. Palea surface puberulous. Palea apex emarginate or truncate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, 2 mm long, membranous, ciliate. Anthers 3, 4 mm long, yellow. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, obovoid, hairy at apex, apex unappendaged. Hilum linear.

Distribution (TDWG), Continent. Temperate Asia.

Country /Province /State. China. Xinjiang.

Elymus vulpinus Rydb. *Bull. Torr. Bot. Club* 6: 540 (1909).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *P.A. Rydberg 1617*, 29 Jul 1893, USA: Nebraska: Grant Co. (NY; IT: NY-207941).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): inflorescences spicate resembling fox tails.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms geniculately ascending, 50–75 cm long. Ligule an eciliate membrane. Leaf-blades 10–12 cm long, 2–4 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 10–15 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, 1 their length apart. Rhachis internodes linear. Rhachis internode tip flat. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–13 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume elliptic, 5–7 mm long, 1 length of upper glume, coriaceous, without keels, 5 -veined. Lower glume lateral veins ribbed. Lower glume surface scabrous. Lower glume apex acute, awned, 1 -awned, awn 0.5–1 mm long. Upper glume elliptic, 5–7 mm long, coriaceous, without keels, 5 -veined. Upper glume lateral veins ribbed. Upper glume surface scabrous. Upper glume apex acute, awned, 1 -awned, awn 0.5–1 mm long.

Florets. Fertile lemma elliptic, 7 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface pubescent. Lemma apex dentate, 2 -fid, acute, awned, 1 -awned. Principal lemma awn from a sinus, 5–10 mm long overall. Palea 1 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. North America.

Country /Province /State. Northwest USA, North-central USA. Montana. Nebraska.

Elymus wawawaiensis J.R. Carlson & M.E. Barkworth. *Phytologia* 83(4): 327 (1998).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *C. V. Piper 3954*, 9 Jun 1902, USA: Washington, Wawawai (US-1017771; IT: US-1017773). [caption of illustration erroneously gives 1017773 as holotype].

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (335).

Derivation (Clifford & Bostock 2007): *L. -ensis*, denoting origin. From Wawawai, Washington State, USA.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths pubescent. Culms 15–130 cm long. Leaf-sheaths 6–18 cm long, glabrous on surface, outer margin glabrous. Ligule an eciliate membrane. Leaf-blades 13–26 cm long, 2–5 mm wide. Leaf-blade surface pubescent, densely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect or drooping, bilateral, 6–20 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear, 5–10 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10–20 mm long, breaking up at maturity, disarticulating above glumes but not between florets.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume linear or lanceolate, 4–10 mm long, 1 length of upper glume, membranous, without keels, 1–3 -veined. Lower glume lateral veins absent or obscure. Lower glume apex acute. Upper glume linear or lanceolate, 4–10 mm long, 1 length of adjacent fertile lemma, membranous, without keels, 1–3 -veined. Upper glume lateral veins absent or obscure. Upper glume apex acute.

Florets. Fertile lemma lanceolate to oblong, 7–12 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma lateral veins obscure. Lemma surface smooth or asperulous. Lemma margins pubescent, hairy below.

Lemma apex acute, awned, 1 -awned. Principal lemma awn spreading, 10–25 mm long overall. Palea surface pubescent. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2. Anthers 3, 3–6 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. Northwest USA. Washington.

Elymus wiegandii Fernald. *Rhodora* 35: 192 (1933).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: USA: Maine: St. Francis: low gravelly thicket by St. John River, 5 Aug 1893, *Fernald 197* (HT: GH) distributed as *Elymus canadensis* var. *glaucofolius*.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 24 Poaceae*, part 1 (2007) (307).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes absent. Culms erect, 100–180(–200) cm long, 9–16 -noded. Culm-nodes glabrous. Leaves basal and cauline. Leaf-sheaths longer than adjacent culm internode, glabrous on surface or hirsute. Leaf-sheath auricles falcate, 1–3 mm long. Ligule an eciliate membrane, 1 mm long. Leaf-blades (8–)10–20(–24) mm wide, dark green. Leaf-blade surface pilose, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, drooping, bilateral, 10–30 cm long, 30–50 mm wide. Rhachis flattened, pubescent on surface (above). Spikelet packing broadside to rhachis. Rhachis internodes linear, 5–8(–12) mm long. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising (3–)4–6(–7) fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 12–20 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume linear, 7–12 mm long, 1 length of upper glume, membranous, without keels, 1–3 -veined. Lower glume lateral veins absent or distinct. Lower glume surface glabrous or puberulous or hispidulous. Lower glume apex awned, 1 -awned, awn (5–)8–15(–18) mm long. Upper glume linear, 7–12 mm long, 0.75 length of adjacent fertile lemma, membranous, without keels, 1–3 -veined. Upper glume lateral veins absent or distinct. Upper glume surface glabrous or pubescent or hispidulous. Upper glume awned, 1 -awned, awn (5–)8–15(–18) mm long.

Florets. Fertile lemma elliptic, 10–15 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface glabrous or pubescent. Lemma apex awned, 1 -awned. Principal lemma awn curved, spreading, 15–25(–30) mm long overall. Palea 9–14 mm long. Palea apex dentate, 2 -fid. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 2–3.5 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. Subarctic America, Western Canada, Eastern Canada, North-central USA, and Northeast USA. Nunavut. Manitoba. New Brunswick, Nova Scotia, Ontario, Quebec. Minnesota, North Dakota. Maine, Massachusetts, Ohio, New York.

Elymus woroschilowii N.S. Probatova. *Sosud. Rast. Sovet. Dal'nego Vostoka*, 1: 113 (1985).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 45–80(–100) cm long. Culm-nodes glabrous. Leaf-sheaths smooth, glabrous on surface. Ligule an eciliate membrane. Leaf-blades flat or convolute, 2.5–7 mm wide, glaucous. Leaf-blade surface smooth or scaberulous, rough adaxially, glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 4–10(–12) cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 8–16 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 1 length of upper glume, coriaceous, without keels. Upper glume lanceolate, coriaceous, without keels. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, 7.5–9 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scabrous, rough above. Lemma apex acute, awned, 1 -awned. Principal lemma awn curved, spreading, 6.5–9.5 mm long overall. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.2–1.7 mm long.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Russian far east. Kamchatka.

Elymus x cayouetteorum B. Boivin.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (341).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Elymus x dorei (Bowden) M.E. Barkworth & D.R. Dewey. *Amer. J. Bot.*, 72(5): 772 (1985).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

Basionym or Replaced Name: ×*Agroelymus dorei* Bowden, *Canad. Journ. Bot.* 45: 715 (1967).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of William George Dore (1912-) Canadian botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Elymus x ebingeri G.C. Tucker. *Harvard Pap. Bot.*, 9: 83 (1996).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (342).

Derivation (Clifford & Bostock 2007): In honor of John E. Ebinger (1933-) United States botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Elymus x hansenii Scribn. *U.S. Dept. Agric. Bull. Agrost.* 11: 56 (1898).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (342).

Derivation (Clifford & Bostock 2007): in honor of George Hansen (1863–1908) United States plant collector.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Elymus x macrolepis (Drobov) Tsvelev. *Akad. Nauk SSSR Bot. Inst. Komarova, Rast. Tsentral. Azii, Fasc.* 4, 21 (1968).

Basionym or Replaced Name: *Agropyron xmacrolepis* Drobov, *Fedde, Repert.* 21: 41 (1925).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. makros, large; lepis, scale. Glumes and or lemmas large.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Country /Province /State. TDWG4. Jammu Kashmir.

Elymus x maltei Bowden. *Canad. Journ. Bot.* 42: 575 (1964).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Malte Oskar Malte (1880–1933) Swedish-born Canadian botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Elymus x mossii (Lepage) M.E. Barkworth & D.R. Dewey. *Amer. J. Bot.*, 72(5): 772 (1985).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

Basionym or Replaced Name: ×*Agroelymus mossii* Lepage, *Natur. Canad.* 92: 214 (1965).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of E.M. Moss (fl. 1946) Canadian botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Elymus x obtusiusculus (Lange) A. Melderis & D. McClintock. *Watsonia* 14(4): 394 (1983).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

Basionym or Replaced Name: *Agropyron obtusiusculum* Lange, *Handb. ed.* 2: 48. (1857).

Illustrations (Books): C.E.Hubbard, *Grasses* (1968) (102 as *Agropyron x obtusiusculum*).

Derivation (Clifford & Bostock 2007): *L. obtusior*, more blunt; -ulum, diminutive. Glumes short and rounded.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes elongated. Culms erect or geniculately ascending, 20–100 cm long, 3–5 -noded. Leaves cauline. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs lacking. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 0.3–1 mm long, truncate. Leaf-blades flat or involute, 10–30 cm long, 2–7 mm wide, stiff, glaucous. Leaf-blade surface ribbed, scabrous, glabrous. Leaf-blade margins scaberulous. Leaf-blade apex acuminate, hardened.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, bilateral, 6–22 cm long. Rhachis flattened, smooth on margins or scabrous on margins. Spikelet packing broadside to rhachis, 1–1.2 their length apart, regular, 2 -rowed. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong or cuneate, laterally compressed, 15–28 mm long, breaking up at maturity, disarticulating below each fertile floret. Spikelet callus glabrous, base truncate. Rhachilla internodes obscured by lemmas.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume oblong, 9–15 mm long, 1 length of upper glume, coriaceous, 1-keeled, 5–7 -veined. Lower glume primary vein smooth or scaberulous. Lower glume lateral veins ribbed. Lower glume apex obtuse. Upper glume oblong, 9–15 mm long, 0.9–1.1 length of adjacent fertile lemma, coriaceous, 1-keeled, 5–7 -veined. Upper glume primary vein smooth or scaberulous. Upper glume lateral veins ribbed. Upper glume apex obtuse.

Florets. Fertile lemma oblong, 9–15 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma apex truncate or obtuse, mucronate. Palea lanceolate, 1 length of lemma, 2 -veined. Palea keels scabrous. Palea apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, elliptic, membranous. Anthers 3, 4–6.5 mm long, indehiscent. Stigmas 2. Ovary pubescent on apex.

Distribution (TDWG). Continent. Europe.

Region. Northern Europe, Middle Europe, Southwestern Europe, Southeastern Europe.

Country /Province /State. : GB Aliens (Ryves et al), Sweden. : Austria, Belgium, Germany, Netherlands, Poland. : France, Spain. : Greece, Italy.

Elymus x palmerensis (Lepage) M.E. Barkworth & D.R. Dewey. *Amer. J. Bot.*, 72(5): 772 (1985).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

Basionym or Replaced Name: ×*Agroelymus palmerensis* Lepage, *Natur. Canad.* 79: 258 (1952).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (341).

Derivation (Clifford & Bostock 2007): *L. -ensis*, denoting origin. From Palmer River, Alaska.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Elymus x pinaloensis (Pyrah) M.E. Barkworth & D.R. Dewey, sine bas die. *Amer. J. Bot.*, 72(5): 772 (1985).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

Basionym or Replaced Name: *xAgroelymus pinalenoensis* G.L. Pyrah, *Great Basin Nat.*, 43(1): 135 (1983).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From Pinaleno Mountains, Arizona, USA.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Elymus x pseudorepens (Scribner & J.G. Smith) M.E. Barkworth & D.R. Dewey. *Great Basin Nat.*, 43(4): 568 (1983).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006) (as *Agropyron*).

TYPE from USA. **Basionym or Replaced Name:** *Agropyron violaceum* var. *andinum* Scribn. & Smith, *US Dept. Agric., Agrost. Bull.* 4:30 (1897). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: USA, Colorado, Gray's Peak: Jones 720 (US lecto).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (341).

Derivation (Clifford & Bostock 2007): Gk *pseudos*, false. Resembling *Elymus repens*.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Elymus x saundersii Vasey. *Bull. Torrey Bot. Club*, 11: 126 (1884).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: USA, Colorado, Veta Pass: Vasey (K iso, LE, US).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (342).

Derivation (Clifford & Bostock 2007): in honor of William Saunders(1822–1900) Scots born United States horticulturalist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Elymus x saxicola Scribn. & J. G. Sm. *U.S. Dept. Agric. Bull. Agrost.* 40: 56 (1898).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online (as *xPseudelymus*).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (283).

Derivation (Clifford & Bostock 2007): L. *saxum*, rock; *-cola*, dweller. Growing on or amongst boulders.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Elymus x spurius

Accepted by: N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *Agropyron*).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Elymus x yukonensis (Scribn. & Merr.) A.Lvve. *Taxon*, 29(1): 168 (1980).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Agropyron yukonense* Scribn. & Merrill, *Contrib. U. S. Nat. Herb.* 13: 85 (1910). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: USA, Fort Yukon: Georgeson 22 (US holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From the Yukon, Alaska.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, mat forming. Rhizomes elongated. Culms 20–50 cm long. Culm-nodes glabrous. Leaf-sheaths puberulous. Ligule an eciliate membrane, 0.4–0.5 mm long, entire or erose.

Leaf-blades 2–5 cm long, 1–4 mm wide, coriaceous, stiff, glaucous. Leaf-blade surface ribbed, puberulous, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 4–10 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 9–12 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, 5–6 mm long, 1 length of upper glume, coriaceous, without keels, 2–4 -veined. Lower glume lateral veins ribbed. Lower glume apex acute. Upper glume lanceolate, 5–6 mm long, 1 length of adjacent fertile lemma, coriaceous, without keels, 2–4 -veined. Upper glume lateral veins ribbed. Upper glume apex acute.

Florets. Fertile lemma lanceolate to oblong, 7–10 mm long, coriaceous, 5–7 -veined, more than 3-veined. Lemma surface pilose. Lemma apex acute, muticous or awned, 1 -awned. Principal lemma awn 0–10 mm long overall. Palea 1 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 3–5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

$2n = 28$ (1 ref TROPICOS).

Distribution (TDWG). Continent. North America.

Country /Province /State. Subarctic America. Alaska.

Elymus yangiae B. Rong Lu. *Willdenowia* 22(1–2): 129, f. 1 (1992).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Xizang: Ape Bridge, 13 km E Gongbogyamda, 3350 m, 20 Sept. 1988, *J.L. Yang et al. H-8341* (HT: LE; IT: K, LE, PE, SAUTI).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms erect, 60–110 cm long, 4–7 -noded. Leaf-sheaths antrorsely scabrous. Leaf-sheath auricles falcate, 1.2–2 mm long. Ligule an eciliate membrane, 0.3–0.6 mm long, lacerate. Leaf-blades 5–25 cm long, 3–4 mm wide. Leaf-blade surface scabrous, rough on both sides. Leaf-blade margins ciliate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, arcuate, bilateral, 10–15 cm long, 5–8 mm wide. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 17–25 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1.7–2.1 mm long, pilose.

Glumes. Glumes persistent, similar. Lower glume lanceolate, 2–4.5 mm long, coriaceous, much thinner on margins, without keels, 2–3 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acute or acuminate. Upper glume lanceolate, 3–3.5 mm long, coriaceous, with membranous margins, without keels, 2–5 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex acute or acuminate.

Florets. Fertile lemma lanceolate, 7–10 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface pubescent or pilose. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 12–32 mm long overall. Palea lanceolate, 1 length of lemma, 2 -veined. Palea keels ciliate. Palea surface pubescent, hairy on back. Palea apex dentate, 2 -fid. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 3.5–4.2 mm long, yellow. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Tibet.

Elymus yezoensis (Honda) T. Osada. *Illustr. Grasses of Japan*: 738 (1989).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), T.Koyama, *Grasses of Japan and its neighboring regions* (1987) (as *Agropyron*).

TYPE from Japan. **Basionym or Replaced Name:** *Agropyron yezoense* Honda, *Bot. Mag., Tokyo*, 43: 292 (1929). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Japan, Nopporo: Kudo ; Japan, Sounkyo: Nakai ; Japan, Pirikapetan: Tatewaki 10168.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From Yezo, Kitami Province Japan.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms slender, 60–100 cm long. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 0.4–0.7 mm long, truncate. Leaf-blades 10–25 cm long, 3–5 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, ascending, arcuate, bilateral, 10–18 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, laterally compressed, 15–20 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes glabrous or sparsely hairy.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 6–7 mm long, 0.8–0.9 length of upper glume, coriaceous, without keels, 5 -veined. Lower glume surface pilose. Lower glume apex acuminate. Upper glume lanceolate, 4 mm long, coriaceous, without keels, 7 -veined. Upper glume surface pilose. Upper glume apex acuminate.

Florets. Fertile lemma oblong, 7–9 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma lateral veins ribbed. Lemma surface hispidulous. Lemma apex acute, awned, 1 -awned. Principal lemma awn 10–25 mm long overall. Palea 1 length of lemma. Palea keels ciliate. Palea surface puberulous, hairy on back. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 2–2.5 mm long. Stigmas 2. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Eastern Asia. Japan, Korea. Japan Hokkaido.

Elymus yubaridakensis (Honda) Ohwi. *Acta Phytotax. & Geobot., Kyoto*, 6: 54 (1937).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), T.Koyama, *Grasses of Japan and its neighboring regions* (1987).

TYPE from Japan. **Basionym or Replaced Name:** *Clinelymus yubaridakensis* Honda, *Bot. Mag. (Tokyo)* 50: 572 (1936)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Japan, Mt. Yubari-dake: Sugimoto 25397.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From Yubari Daki, a mountain in Japan.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–50 cm long, 2–3 -noded. Ligule an eciliate membrane, 7–15 mm long. Leaf-blades 5–8 mm wide. Leaf-blade surface scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, ascending, bilateral, 8–16 cm long. Rhachis flattened. Spikelet packing broadside to rhachis. Rhachis internodes linear. Rhachis internode tip flat. Spikelets in pairs. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, laterally compressed, 12–15 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes collateral, persistent, similar, shorter than spikelet. Lower glume lanceolate, 7–8 mm long, 1 length of upper glume, coriaceous, without keels, 3 -veined. Lower glume apex attenuate. Upper glume lanceolate, 7–9 mm long, coriaceous, without keels, 3 -veined. Upper glume apex attenuate.

Florets. Fertile lemma elliptic, 9–10 mm long, herbaceous, 5 -veined, more than 3-veined. Lemma surface scabrous. Lemma apex acute, awned, 1 -awned. Principal lemma awn curved, 22–30 mm long overall. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3. Stigmas 2. Caryopsis with adherent pericarp.

$2n = 28$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Eastern Asia. Japan. Japan Hokkaido.

Elymus yushuensis (L.B. Cai) S.L. Chen & G.H. Zhu. *Novon* 12(3): 428 (2002).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria yushuensis* L.B. Cai, *Bull. Bot. Res., Harbin* 14(4): 338–340, f. 1 (1994)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Qinghai: Yushu, along roadside, 3750 m, 24 Aug. 1980, *Z.D. Wei 22105* (HT: NWBI).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. -ensis*, denoting origin. From Yushu, Qinghai Province, China.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Culms erect, 45–60 cm long, 1–2 mm diam., 2–3 -noded. Culm-internodes distally glabrous. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 0.5 mm long, truncate. Leaf-blades involute, 5–9 cm long. Leaf-blade surface pilose, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, bilateral, 6–11 cm long. Rhachis flattened, glabrous on surface. Spikelet packing broadside to rhachis, lax. Rhachis internodes 7–18 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 12–20 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pubescent.

Glumes. Glumes persistent, similar. Lower glume lanceolate, 4–5 mm long, coriaceous, without keels, 3–5 -veined. Lower glume surface glabrous. Lower glume apex acuminate. Upper glume lanceolate, 6–7 mm long, coriaceous, without keels, 2–5 -veined. Upper glume surface glabrous. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, 8–9 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface scabrous. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 2–4 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels ciliolate, adorned above. Palea apex truncate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, yellow. Caryopsis with adherent pericarp, yellow, hairy at apex.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Qinghai.

Elymus zejensis N.S. Probatova. *Bot. Zhurn.*, 69(2): 257 (1984).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online.

TYPE from Russia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Russia, Zeja, Novo-Vysokoje: Schlotgauer (VLA holo).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial. Rhizomes short. Culms slender, 45–65 cm long. Leaf-sheaths smooth, glabrous on surface. Ligule an eciliate membrane, 0.8 mm long. Leaf-blades flat or convolute, 2–5 mm wide. Leaf-blade surface glabrous or pilose, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight or arcuate, bilateral, 10–18 cm long. Rhachis flattened. Spikelet packing broadside to rhachis, lax. Rhachis internodes linear. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic to oblong, laterally compressed, 10.5–12 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 5–6.5 mm long, 1 length of upper glume, coriaceous, much thinner on margins, without keels, 3–5 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex acute or acuminate. Upper glume lanceolate, 5–6.5 mm long, 0.5 length of adjacent fertile lemma, coriaceous, with membranous margins, without keels, 3–5 -veined. Upper glume surface scabrous, rough above. Upper glume apex acute or acuminate.

Florets. Fertile lemma lanceolate, 9–10.5 mm long, coriaceous, 5 -veined, more than 3-veined. Lemma surface puberulous. Lemma apex acute, awned, 1 -awned. Principal lemma awn straight or curved, 5–10 mm long overall. Palea 1 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 2.2 mm long.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Russian far east. Amur.

Elymus zhui S. L. Chen. *Fl. China* 22: 410 (2006).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Roegneria minor* Keng, *Acta Univ. Nankin. Sci. Nat.* 3(1): 71 (1963). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Hebei: Neiqiu, 3 July 1950, Y. Liou 12980 (HT: PE).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 569).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 25–30 cm long, 4 -noded. Leaf-sheaths longer than adjacent culm internode, glabrous on surface. Ligule an eciliate membrane, 0.2–0.5 mm long. Leaf-blades conduplicate or involute, 8–10 cm long, 2–4 mm wide. Leaf-blade surface pubescent, hairy on both sides.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, bilateral, 8–9 cm long. Rhachis flattened, scabrous on margins. Spikelet packing broadside to rhachis, regular, 2 -rowed. Rhachis internodes 4–7 mm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, 10–12 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1–1.5 mm long, pubescent. Floret callus pubescent.

Glumes. Glumes persistent, similar, subequal in width, shorter than spikelet. Lower glume lanceolate or oblong, 5–7 mm long, coriaceous, without keels, 3–6 -veined. Lower glume surface scabrous, rough on veins. Lower glume apex entire or with a unilateral tooth, acute, mucicous. Upper glume lanceolate or oblong, 6–8 mm long, coriaceous, without keels, 3–6 -veined. Upper glume lateral veins prominent. Upper glume surface scabrous, rough on veins. Upper glume apex entire or with a unilateral tooth, acute, mucicous.

Florets. Fertile lemma lanceolate, 8.5 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface puberulous, hairy all along. Lemma apex awned, 1 -awned. Principal lemma awn reflexed, 12 mm long overall. Palea 1 length of lemma, 2 -veined. Palea keels ciliate, adorned above. Palea apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, membranous. Anthers 3, 1.5 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp, hairy at apex, apex unappendaged. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central, Inner Mongolia, China North-Central, Qinghai.

TDWG4. Hebei, Shanxi, Guizhou.

Elytrigia dshinalica Sablina. *Novosti Sist. Vyssh. Rast.*, 12: 44 (1975).

TYPE from Russia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Jival Mt.: Sabilina.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Caucasus. North Caucasus.

Elytrigia atherica (Link) Kerguélen ex Carreras Martinez. *Univ. Murcia, Tesina Licenc Ci. Bol.* 6: 136 (1986).

Accepted by: R.J. Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online.

Basionym or Replaced Name: *Triticum athericum* Link, *Linnaea* 17: 395 (1843).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Distribution (TDWG). Continent. Europe.

Region. Northern Europe.

Country /Province /State. : Great Britain.

Elytrigia gmelini (Trin.) Nevski. *Acta Inst. Bot. Acad. Sc. URSS*, Ser. I. Fasc. 2, 78 (1936).

Accepted by: S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from Russia. **Basionym or Replaced Name:** *Triticum gmelinii* Trin., *Linnaea* 12(4): 467 (1838)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *Turczaninov*, 1829, Sibiria: Selenginsk, in rupe cepifera (LT: LE; ILT: LE). LT cited in Tzvelev, *Zlaki SSSR* p. 133 (1976).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): In honor of Karl Christian Gmelin (1762–1837) German physician and botanist.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Siberia, China, Mongolia, Russia. Xinjiang.

Elytrigia praetermissa Nevski. *Trudy Bot. Inst. Akad. Nauk S.S.S.R., Ser. 1, Fl. Sist. Vyssh. Rast.* 2: 84 (1936).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online (as *Agropogon*).

TYPE from Russia. **Basionym or Replaced Name:** *Triticum pumilum* Steud., *Syn. Pl. Glumac.* 1: 344 (1955) [1954].

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: E. Siberia, *Turczaninow*.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Perennial, culms solitary. Rhizomes elongated. Culms 12–40 cm long. Culm-internodes distally glabrous. Ligule an eciliate membrane. Leaf-blades 1–3 mm wide. Leaf-blade surface pubescent, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, linear or oblong, bilateral, 3–5.2 cm long, bearing 5–8 fertile spikelets on each. Rhachis scabrous on margins. Spikelet packing broadside to rhachis, crowded. Rhachis internodes oblong. Spikelets ascending, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 5–6 fertile florets, with diminished florets at the apex. Spikelets oblong, laterally compressed, 10–11 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet, firmer than fertile lemma. Lower glume lanceolate, 5–6 mm long, 1 length of upper glume, 1-keeled, keeled all along, 4–5 -veined. Lower glume primary vein ciliate. Lower glume apex obtuse. Upper glume lanceolate, 5–6 mm long, 0.75 length of adjacent fertile lemma, coriaceous, 1-keeled, keeled all along, 4–5 -veined. Upper glume primary vein ciliate. Upper glume apex obtuse.

Florets. Fertile lemma lanceolate, 7 mm long, chartaceous, glaucous, keeled, 5 -veined. Lemma surface glabrous. Lemma apex obtuse, muticous. Palea 0.9 length of lemma. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 4 mm long. Ovary with a fleshy appendage below style insertion, pubescent on apex. Caryopsis with adherent pericarp, hairy at apex, apex fleshy. Hilum linear.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Siberia. Tuva (as *Agropyron*).

GrassBase Notes Triticeae. FI USSR 1997.

Elytrophorus globularis Hack. *Bull. Herb. Boiss. Ser. 2, 2:* 935 (1902).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: T: *Rautanen s.n.*, Olukonda.

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10, L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (187, Fig 163), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (133, Fig 79).

Derivation (Clifford & Bostock 2007): *L. globus*, sphere; -ulus, diminutive; -aris, pertaining to.

Classification. Subfamily Arundinoideae. Tribe: Danthoneiae.

Habit, Vegetative Morphology. Annual. Culms erect, 5–60 cm long. Ligule an eciliate membrane. Leaf-blades 5–25 cm long, 2–6 mm wide.

Inflorescence. Inflorescence a panicle. Panicle glomerate, linear, interrupted, 3–20 cm long, 0.5–1.1 cm wide. Spikelets subtended by an involucre. Fertile spikelets sessile, 3–5 in the cluster. Companion sterile spikelets sessile, 3–5 in the cluster. Involucre composed of imperfect spikelets.

Sterile Spikelets. Companion sterile spikelets represented by single glumes, linear, 1.5–3 mm long, longer than fertile, persistent. Companion sterile spikelet glumes membranous, 1 -veined, truncate, awned, with 1–5 mm long awn.

Fertile Spikelets. Spikelets comprising 3–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 4–7 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet, similar to fertile lemma in texture. Lower glume lanceolate, 1.5–2 mm long, 1 length of upper glume, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate, awned, 1 -awned, awn 1–1.5 mm long. Upper glume lanceolate, 1.5–2 mm long, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate, awned, 1 -awned, awn 1–1.5 mm long.

Florets. Fertile lemma ovate, 2–3 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein ciliate. Lemma margins ciliate. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 1–2 mm long overall. Palea orbicular, 2 -veined. Palea keels winged, with toothed wings. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 1 or 2. Anthers 1–3, 1.5–2 mm long. Stigmas 2, sparsely hairy. Caryopsis with free soft pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa, South tropical Africa, and Southern Africa. Tanzania. Angola, Zambia, Zimbabwe. Namibia, Botswana, Limpopo.

Elytrophorus spicatus (Willd.) A. Camus. Lecomte, *Fl. Gen. Indo-Chine* 7: 547 (1922).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*), N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960).

TYPE from India. **Basionym or Replaced Name:** *Dactylis spicatus* Willd., *Ges. Naturf. Freunde Berlin Neue Schriften* 3: 416 (1801). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: India:, *Klein s.n.* (HT: B-W; IT: K).

Illustrations (Books): H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962) (148, Fig. 73), F.N.Hepper, *F.W.T.A.* 3(2) (1972) (373, Fig.425), R.M.Phillip, F.T.E.A., *Gramineae* (1(1970):136, Fig.45), G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):3, T. 1), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (187, Fig. 162), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (67, Fig. 29), K.M.Matthew, *Illustrations on the Flora of Tamilnadu Carnatic* (1982) (Pl. 857 & 858), H.J.Noltie, *The Grasses of Bhutan* (2000) (645, Fig. 31), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (300, Fig. 236), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (87, Pl. 24), J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (1146, Fig. 329), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (239), J.C.Tothill,& J.B.Hacker. *The grasses of southern Queensland* (1983) (218), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (145, Fig. 22), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (23, Fig. 3), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), S-L Chen et al, *Flora of China*, *Illustrations, Poaceae* (2007) (Fig. 629).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): *L. spica*, thorn; -ata, possessing; Inflorescence a spike or spicate panicle.

Classification. Subfamily Arundinoideae. Tribe: Danthoneieae.

Habit, Vegetative Morphology. Annual. Culms erect, 5–60 cm long. Ligule an eciliate membrane. Leaf-blades 5–25 cm long, 2–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle glomerate, linear, continuous or interrupted, 2–30 cm long, (0.3–)0.5–0.7 cm wide. Spikelets subtended by an involucre. Fertile spikelets sessile, 3–5 in the cluster. Companion sterile spikelets sessile, 3–5 in the cluster. Involucre composed of imperfect spikelets.

Sterile Spikelets. Companion sterile spikelets represented by single glumes, linear, 1–2 mm long, as long as fertile or longer than fertile, persistent. Companion sterile spikelet glumes membranous, 1 -veined, truncate, awned, with 0.5–1 mm long awn.

Fertile Spikelets. Spikelets comprising 3–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 2–3.5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet, similar to fertile lemma in texture. Lower glume lanceolate, 1–1.5 mm long, 1 length of upper glume, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate, awned, 1 -awned, awn 0.5–1 mm long. Upper glume lanceolate, 1–1.5 mm long, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate, awned, 1 -awned, awn 0.5–1 mm long.

Florets. Fertile lemma ovate, 1–1.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein ciliate. Lemma margins ciliate. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 1 mm long overall. Palea orbicular, 2 -veined. Palea keels winged, with toothed wings. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 1 or 2. Anthers 1–3, 0.3 mm long. Stigmas 2, sparsely hairy. Caryopsis with free soft pericarp.

Distribution (TDWG). Continent. Africa, Temperate Asia, Tropical Asia, Australasia.

Country /Province /State. West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa. Ivory Coast, Mali, Nigeria. Eritrea, Ethiopia (inc. Eritrea), Sudan. Tanzania. Zambia, Zimbabwe. Namibia, Botswana. **China.** China South Central, Hainan. **Indian Subcontinent, Indo-China, Malesia.** Assam, Bangladesh, Eastern Himalaya, India, Nepal, Sri Lanka. Myanmar, Thailand, Vietnam. Lesser Sunda Is. **Australia.** Western Australia, Northern Territory, South Australia, Queensland, New South Wales.

TDWG4. Yunnan. Darjeeling, Bhutan, Sikkim. Manipur, Meghalaya, Nagaland. Gujarat, Karnataka, Kerala. Madhya Pradesh, Maharashtra, Orissa, Tamilnadu, Uttah Pradesh.

Elytostachys clavigera McClure. *Journ. Wash. Acad. Sci.* 2: 176 (1942).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Colombia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *H.M. Curran 123*, Apr 1916-May 1916, Colombia: Bolivar: Lands of Loba; growing wild in inaccessible mountain region, alt. 150–600 m, along the Norosi-Tiquisio trail (US-1062456, US-1062457, US-1062458, US-1062459).

Illustrations (Books): W.Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (206, Fig 69), E.J.Judziewicz et al, *American Bamboos* (1999) (176, Fig. 84).

Illustrations (Journals): *Smithsonian Contributions to Botany* (9): 81, Fig. 33; 82, Fig. 34; 84, Fig. 35 (1973)).

Images: E.J.Judziewicz, E.J., *American Bamboos* (1999);

Derivation (Clifford & Bostock 2007): *L. clava*, club; *gero*, carry. Rhachilla club-shaped and projecting beyond the glumes after the florets have been shed.

Classification. Subfamily Bambusoideae. Tribe: Bambuseae.

Habit, Vegetative Morphology. Perennial, woody bamboo, caespitose. Rhizomes short, pachymorph. Butt sheaths absent. Culms scandent, 20–40 mm diam., woody. Culm-internodes terete, thin-walled, 15–37 cm long, distally pubescent. Culm-nodes flush with internodes. Lateral branches dendroid. Bud complement 1. Branch complement many, in a clump, with 1 branch dominant, thinner than stem. Culm-sheaths present, persistent. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs setose, erect, 6–12 mm long. Ligule absent. Leaf-blade base with a brief petiole-like connection to sheath, petiole 0.1 cm long, petiole glabrous or pubescent. Leaf-blades deciduous at the ligule, lanceolate, 40–75 cm long, 5–11 mm wide. Leaf-blade venation with 6–8 secondary veins, without cross veins. Leaf-blade margins scaberulous. Leaf-blade apex attenuate.

Inflorescence. Synflorescence bractiferous, scanty (oblong), 2–5 cm long, with spathaceous subtending bracts, bracts 15–22 mm long, with axillary buds at base of spikelet, prophyllate below lateral spikelets.

Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with a barren rhachilla extension or with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, subterete, 34 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes elongated below proximal fertile floret. Rhachilla elongation stout (clavate), 15–17 mm long, pubescent.

Glumes. Glumes two or several, comprising 0–2 gemmiferous bracts, 2 empty glumes, persistent, similar, shorter than spikelet. Lower glume lanceolate, 14 mm long, chartaceous, pallid, without keels. Lower glume apex obtuse or acute. Upper glume lanceolate, 18 mm long, chartaceous, pallid, without keels. Upper glume apex obtuse or acute.

Florets. Fertile lemma lanceolate, 10–17 mm long, chartaceous, without keel, more than 3-veined. Lemma lateral veins with cross-veins. Lemma surface granulose. Lemma apex acute. Palea 1 length of lemma, chartaceous. Palea keels approximate. Palea surface granular. Palea apex obtuse. Apical sterile florets 0–1 in number, barren, linear.

Flower and Fruit. Lodicules 3, lanceolate, 2–4 mm long, veined, ciliate. Anthers 6, 8 mm long. Stigmas 2. Ovary umbonate, pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Mesoamerica, Western South America, and Southern South America. Costa Rica, Honduras, Nicaragua, Panama. Colombia. Paraguay.

Elytrostachys typica McClure. *Journ. Wash. Acad. Sci.* 2: 174 (1942).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Venezuela. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *H. Pittier* 9226, 21 Feb 1921, Venezuela: Federal District: Valle Puerto La Cruz: in the edge of a monsoon forest near El Limon., alt. 600 m (VEN; IT: MO, US-1067333).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. typical. Typical of the genus.

Classification. Subfamily Bambusoideae. Tribe: Bambuseae.

Habit, Vegetative Morphology. Perennial, woody bamboo, caespitose. Rhizomes short, pachymorph. Butt sheaths absent. Culms scandent, 500–1500 cm long, 40–80 mm diam., woody. Culm-internodes terete, thin-walled. Lateral branches dendroid. Bud complement 1. Branch complement many, in a clump, with 1 branch dominant, thinner than stem. Culm-sheaths present, hispid, with white hairs, without auricles, setose on shoulders. Culm-sheath ligule 1 mm high. Culm-sheath blade linear, reflexed, 4–7 cm long, hispid, attenuate. Leaf-sheath oral hairs setose, erect, dark. Ligule an eciliate membrane, 1 mm long. Collar without external ligule. Leaf-blade base with a brief petiole-like connection to sheath. Leaf-blades deciduous at the ligule, lanceolate, 6–18 cm long, 13–32 mm wide. Leaf-blade venation without cross veins. Leaf-blade surface hispid, hairy abaxially. Leaf-blade apex acuminate.

Inflorescence. Synflorescence bractiferous, scanty (oblong), 2–2.5 cm long, with spathaceous subtending bracts, bracts 15–20 mm long, with axillary buds at base of spikelet, prophyllate below lateral spikelets.

Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with a barren rhachilla extension or with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, subterete, 14–18 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes brief up to lowest fertile floret or elongated below proximal fertile floret. Rhachilla elongation slender, 1–6 mm long, glabrous.

Glumes. Glumes persistent, similar, reaching apex of florets. Lower glume ovate, 10–14 mm long, 0.7–0.8 length of upper glume, chartaceous, without keels, 13 -veined. Lower glume lateral veins with cross-veins. Lower glume apex acute. Upper glume elliptic, 14–18 mm long, 1.1 length of adjacent fertile lemma, chartaceous, without keels, 19 -veined. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, 10–17 mm long, chartaceous, without keel, 7 -veined, more than 3-veined. Lemma apex acute. Palea 1 length of lemma, chartaceous, 6 -veined. Palea keels approximate. Apical sterile florets 1 in number, barren, linear, 2 mm long.

Flower and Fruit. Lodicules 3, veined. Anthers 6, 8 mm long. Stigmas 2. Ovary umbonate. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Mesoamerica, Northern South America, Western South America. Honduras. Venezuela. Colombia.

Enneapogon asperatus C. E. Hubbard. *Hook. Ic. Pl.* 4, t. 3337 (1937).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *C.E. Hubbard* 7348, 9 Feb 1931, Australia: Queensland, Gregory North Dist., Duchess, 350 m (K; IT: L, US-1721094).

Illustrations (Journals): *Hooker's Icones Plantarum* (t.3337 (1937)).

Derivation (Clifford & Bostock 2007): L. asper, rough; -atus, possessing. Leaf-blades and other parts scaberulous.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms 30–70 cm long, disarticulating at the nodes (upper nodes). Lateral branches ample. Leaf-sheaths longer than adjacent culm internode. Ligule a fringe of hairs. Leaf-blades involute, 1–3 mm wide. Leaf-blade surface scaberulous. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle. Peduncle antrorsely scabrous above. Panicle spiciform, linear, 3–4 cm long, 0.5–0.8 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 2.4–5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 2.4–5 mm long, 1 length of upper glume, membranous, without keels, 5–7 -veined. Lower glume surface pilose, with simple hairs or capitate hairs. Lower glume apex truncate or obtuse, mucronate. Upper glume ovate, 2.4–5 mm long, 2–3.3 length of adjacent fertile lemma, membranous, without keels, 5–7 -veined. Upper glume surface pilose, with simple hairs or capitate hairs. Upper glume apex truncate or obtuse, mucronate.

Florets. Fertile lemma oblong, 1.2–1.5 mm long, membranous or cartilaginous, without keel, 9 -veined, more than 3-veined. Lemma lateral veins ribbed. Lemma surface pilose, hairy below, inner surface transversely fringed. Lemma margins ciliate. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 1.5–3.2 mm long overall, 1–1.5 length of lemma, limb ciliate. Lateral lemma awns present, arising on apex of lobes, subequal to principal, ciliate. Palea membranous. Palea keels ciliate, adorned above, with 0.5 of their length adorned. Palea surface pubescent or pilose, hairy on back or on flanks. Apical sterile florets 2–3 in number, barren, in a clump. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns ciliate.

Flower and Fruit. Lodicules 2. Anthers 3. Caryopsis with adherent pericarp, ellipsoid or obovoid, plano-convex, 1–1.8 mm long. Hilum punctiform.

Cleistogenes present, in upper sheaths.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia.

Enneapogon avenaceus (Lindl.) C. E. Hubbard. *Kew Bull.* 1934, 450 (1934).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Pappophorum avenaceum* Lindl., *J. Exped. Trop. Australia* 320 (1848). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Mitchell s.n.*, 22 Sep 1846, Australia: Queensland: Victoria River (Barcoo River), 24.01S 145.2E (CGE).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (331, Fig 263), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (554, Fig 110), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (200, Fig 31), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler, *Grasses of New South Wales*, 4th edn (2008) (240), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): L. -acea, resembling. With inflorescences and/or spikelets similar to those of *Avena*.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual or perennial. Culms 7–45 cm long. Lateral branches lacking or sparse. Ligule a fringe of hairs. Leaf-blades flat or involute, 1–3 mm wide. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Peduncle antrorsely scabrous above. Panicle contracted or spiciform, linear to ovate, 3–9 cm long, 1–3 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–13.6 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 4–13.6 mm long, 0.8 length of upper glume, membranous, without keels, 11–23 -veined. Lower glume surface glabrous or pilose. Lower glume apex obtuse to acuminate. Upper glume ovate, 4–13.6 mm long, 2–4 length of adjacent fertile lemma, membranous, without keels, 11–23 -veined. Upper glume surface glabrous or pilose. Upper glume apex obtuse to acuminate.

Florets. Fertile lemma oblate, 1.8–3.5 mm long, coriaceous, firmer above (knuckled), much thinner on margins, without keel, 9–11 -veined, more than 3-veined. Lemma lateral veins obscure. Lemma surface pilose, hairy below, inner surface transversely fringed. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 7–11 mm long overall, limb plumose, with 1–1.3 mm long hairs, glabrescent towards tip. Lateral lemma awns present, arising on apex of lobes, subequal to principal, of unequal width, ciliate. Palea 1.1 length of lemma, membranous. Palea keels ciliate, adorned above. Palea surface pilose, hairy on back or on flanks, hairy above. Palea apex emarginate or truncate. Apical sterile florets 1–2 in number, barren. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns ciliate.

Flower and Fruit. Lodicules 2. Anthers 3. Caryopsis with adherent pericarp, ellipsoid or orbicular, concavo-convex, 1–1.6 mm long. Hilum punctiform.

Distribution (TDWG). Continent. Europe (*), Australasia.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Australia.** Western Australia, Northern Territory, South Australia, Queensland, New South Wales, Victoria.

Ereman, South-West. Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre, Southern. North, Central, Inland. Western Slopes, Western Plains.

Enneapogon caerulescens (Gaudich.) N. T. Burbidge. *Proc. Linn. Soc., Lond., Sess.* 153 : 87 (1941).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Pappophorum caerulescens* Gaudich., *Voy. Bonite, Bot.* 409 (1826)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: T: *Gaudichaud s.n.*, Australia: Western Australia: Sharks Bay (BM, K).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (332, Fig 264), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (192, Fig 30).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. caerulesco*, become bluish; Foliage glaucous.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual or perennial. Culms 10–40 cm long. Lateral branches lacking or sparse. Ligule a fringe of hairs. Leaf-blades flat or involute, 1 mm wide. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle, terminal or terminal and axillary. Axillary inflorescences present in lower axils, different from terminal (smaller). Peduncle antrorsely scabrous above. Panicle capitate, oblong or ovate, 1–2 cm long, 1–1.5 cm wide. Spikelets solitary. Fertile spikelets pedicelled, heteromorphic (the distal longer). Pedicels present.

Fertile Spikelets. Spikelets comprising 1–2 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets, or of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 2.7–9.2 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 2.7–9.2 mm long, 1 length of upper glume, membranous, without keels, 5–7 -veined. Lower glume surface pubescent or pilose, with simple hairs or capitate hairs. Lower glume apex entire or erose, emarginate or truncate. Upper glume ovate, 2.7–9.2 mm long, 1.5–3 length of adjacent fertile lemma, membranous, without keels, 5–7 -veined. Upper glume surface pubescent or pilose, with simple hairs or capitate hairs. Upper glume apex entire or erose, obtuse or acute.

Florets. Fertile lemma orbicular, 1.6–1.8 mm long, membranous or cartilaginous, without keel, 9–11 -veined, more than 3-veined. Lemma lateral veins ribbed. Lemma surface pilose, hairy below (0.33–0.5 of length), inner surface transversely fringed. Lemma margins ciliate. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 3–10 mm long overall, 2–3 length of lemma, limb plumose, with 1.5–2 mm long hairs, glabrescent towards tip. Lateral lemma awns present, arising on apex of lobes, subequal to principal, plumose. Palea membranous. Palea keels ciliate, adorned above, with 0.5–0.66 of their length adorned, with hairs 0.2–0.3 mm long. Palea surface pubescent, hairy on back, hairy all along. Apical sterile florets 3–4 in number, barren. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns ciliate.

Flower and Fruit. Lodicules 2. Anthers 3. Caryopsis with adherent pericarp, ellipsoid or obovoid, concavo-convex, 1.2–2 mm long. Hilum punctiform.

Cleistogenes absent or present, in lower sheaths.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. **Australia.** Western Australia, Northern Territory, South Australia.

Ereman, South-West. Central Australia. NW & Lake Eyre, Southern.

Enneapogon cenchroides (Licht. ex Roem. & Schult.) C. E. Hubbard. *Kew Bull.* 1934, 119 (1934).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online (as *E.mollis*), W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from South Africa. **Basionym or Replaced Name:** *Pappophorum cenchroides* Licht., *Syst. Veg.* 2: 616 (1817). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Lichtenstein s.n.*, South Africa: near Vaal Rivier (B).

Illustrations (Books): R.M.Pollhill, F.T.E.A., *Gramineae* (1(1970):168, Fig.55), G.V.Pope et al., *Flora Zambesiaca* 10 (1(1971):146, t. 38), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (238, Fig 211), M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984), G.E.Gibbs Russell et al, *Grasses of*

Southern Africa (1990) (134, Fig 80), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (29 & 131, Fig 6 & 42), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (90, Fig 37), T.A.Cope, in M.Thulin, *Poaceae* (Gramineae). *Flora of Somalia* (1995) (167, Fig 82), N.L.Bor, *The grasses of Burma, Ceylon, India and Pakistan* (1960) (584, Fig 62; 609, Fig 70), M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (288).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): Gk. -oides, resembling. Resembling *Cenchrus* usually with respect to the inflorescence.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual or perennial, short-lived, caespitose. Butt sheaths withering. Culms decumbent, 15–100 cm long, wiry. Culm-internodes distally pubescent. Ligule a fringe of hairs. Leaf-blades 3–25 cm long, 3–7 mm wide.

Inflorescence. Inflorescence a panicle. Panicle contracted, lanceolate, continuous or interrupted, 3–20 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 3–4 mm long, 0.6–0.8 length of upper glume, membranous, grey, without keels, 5–7 -veined. Lower glume surface pubescent. Lower glume apex acute. Upper glume ovate, 3.5–5.5 mm long, 2.5 length of adjacent fertile lemma, membranous, grey, without keels, 3 -veined. Upper glume surface pubescent. Upper glume apex emarginate.

Florets. Fertile lemma oblong, 1.5–2 mm long, chartaceous, without keel, 9 -veined, more than 3-veined. Lemma surface villous, hairy below. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 2.5–5 mm long overall, limb ciliate. Lateral lemma awns present, arising on apex of lobes, subequal to principal, ciliate. Palea keels ciliate. Apical sterile florets 2 in number, dissimilar. First apical floret male, oblong, villous. Apical sterile florets barren, rudimentary. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns 0.7–2 mm long, ciliate.

Flower and Fruit. Lodicules 2. Anthers 3, 1–2.7 mm long. Caryopsis with adherent pericarp. Embryo 0.75 length of caryopsis. Hilum punctiform.

N = 20 (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa, Temperate Asia, Tropical Asia.

Country /Province /State. West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Middle Atlantic ocean, Western Indian ocean. Gabon. Eritrea, Ethiopia (inc. Eritrea), Somalia, Sudan. Kenya, Tanzania, Uganda. Angola, Mozambique, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Northern Cape, Western Cape. Ascension. Madagascar. **Arabian Peninsula.** Oman. **Indian Subcontinent.** Pakistan.

Enneapogon cylindricus N. T. Burbidge. *Proc. Linn. Soc., Lond., Sess.* 153 : 89, 91 (1941).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: South Australia: Frome Downs, *Wade* 26 (HT: K).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (333, Fig 265 & Pl. 12), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler, *Grasses of New South Wales*, 4th edn (2008) (240), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (191, Fig 29).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. cylindrus*, cylinder; *L. -ica*, belonging to. Inflorescences cylindrical.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Butt sheaths pubescent. Culms slender, 10–50 cm long, 3–4 -noded, disarticulating at the nodes (all nodes). Culm-internodes channelled, distally pubescent or pilose. Lateral branches lacking or sparse. Leaf-sheaths mostly shorter than adjacent culm internode. Ligule a fringe of hairs. Leaf-blades deciduous at the ligule, involute, 1–2 mm wide. Leaf-blade surface pubescent. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Peduncle antrorsely scabrous above. Panicle spiciform, linear, 3–14 cm long, 0.5–1.5 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–7 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 3–7 mm long, 1 length of upper glume, membranous, without keels, 5–7 -veined. Lower glume surface pubescent or pilose, with simple hairs or capitate hairs. Lower glume apex entire or erose, obtuse, mucicous or mucronate. Upper glume ovate, 3–7 mm long, 1.5–3 length of adjacent fertile lemma, membranous, without keels, 5–7 -veined. Upper glume surface pubescent or pilose, with simple hairs or capitate hairs. Upper glume apex entire or erose, obtuse, mucicous or mucronate.

Florets. Fertile lemma oblong, 1.8–2.3 mm long, membranous or cartilaginous, without keel, 9–11 -veined, more than 3-veined. Lemma lateral veins ribbed. Lemma surface pilose, hairy below, inner surface transversely fringed. Lemma margins ciliate, hairy below. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 2.2–5.4 mm long overall, limb ciliate (lower 0.5–0.66 of length). Lateral lemma awns present, arising on apex of lobes, subequal to principal, ciliate. Palea 1.3–1.4 length of lemma, membranous. Palea keels scaberulous, eciliate, adorned above, with 0.5–0.75 of their length adorned. Palea surface pubescent, hairy on back or on flanks. Palea apex dentate, 2 -fid, with excurrent keel veins. Rhachilla extension glabrous or sparsely hairy, hairy throughout but longer above. Apical sterile florets 2–3 in number, barren, in a clump. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns ciliate.

Flower and Fruit. Lodicules 2. Anthers 3, 1.3 mm long. Caryopsis with adherent pericarp, ellipsoid or obovoid, plano-convex, 1.4–2 mm long, obtuse. Hilum punctiform.

Cleistogenes present, in upper sheaths or in lower sheaths.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, South Australia, Queensland, New South Wales.

Ereman, South-West. Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre, Southern. North, Central, Inland. Western Plains.

Enneapogon decipiens E.K.Z. Kakudidi. *Austral. Syst. Bot.* 1(4): 336 (1989).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Newcastle Waters: *Must 409* (CANB holo, NT).

Illustrations (Books): No illustration found (BKS).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. decipio*, deceive. Resembling another species, or in some other way deceptive.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 28–62 cm long. Lateral branches ample. Leaf-sheaths longer than adjacent culm internode. Ligule a fringe of hairs. Leaf-blades 1–3 mm wide. Leaf-blade surface scaberulous, pilose. Leaf-blade apex attenuate, filiform.

Inflorescence. Inflorescence a panicle. Peduncle antrorsely scabrous above. Panicle spiciform, linear, (1.5–)2.5–13 cm long, 1–2 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5.9–9.4 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 4–8 mm long, 0.6–0.8 length of upper glume, membranous, without keels, 9–14 -veined. Lower glume surface glabrous or pubescent or pilose. Lower glume apex entire or erose, obtuse or acute. Upper glume ovate, 5.9–9.4 mm long, 2 length of adjacent fertile lemma, membranous, without keels, 7–14 -veined. Upper glume surface glabrous or pubescent or pilose. Upper glume apex entire or erose, emarginate or acute.

Florets. Fertile lemma oblate, 2.9–4.2 mm long, cartilaginous or coriaceous, without keel, 9–11 -veined, more than 3-veined. Lemma lateral veins without ribs or ribbed. Lemma surface pilose, hairy below, inner surface transversely fringed. Lemma margins ciliate. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 3.5–9 mm long overall, limb ciliate (lower 0.75–0.8 of length). Lateral lemma awns present, arising on apex of lobes, subequal to principal, of unequal width (outer wider), ciliate. Palea 1.1 length of lemma, cartilaginous. Palea keels ciliate, adorned all along. Palea surface glabrous (or with sparse apical hairs). Apical

sterile florets 4–5 in number, dissimilar. First apical floret male. Apical sterile florets barren, in a clump. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns ciliate.

Flower and Fruit. Lodicules 2. Anthers 3. Caryopsis with adherent pericarp, obovoid, concavo-convex, 1.3–2.2 mm long. Hilum punctiform.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland. Kimberley. Darwin & Gulf, Victoria R & Barkly Tableland. North.

Enneapogon desvauxii Beauv. *Agrost.* 82, 161 (1812).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *E. brachystachyus*), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from America. **Basionym or Replaced Name:** *Enneapogon brachystachyus* (Jaub. & Spach) Stapf, Dyer, *Fl. Cap.* 7: 654. (1900). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *P. Beauv., Ess. Agrost. t. 16, f. 11 (1812)*, LT designated (as type) by Ali Chaudahry, *Grass. Saudi Arabia* 221 (1989).

Illustrations (Books): H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962) (226, Fig. 150 as *E. brachystachyus*), R.M.Pollhill, F.T.E.A., *Gramineae*, G.V.Pope et al., *Flora Zambesiaca* 10, L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (238, Fig 212 as *Brachystachyus*), M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (135, Fig 81), N.Feinbrun-Dothan, *Flora Palaestina* 4 (1986) (Pl. 370 as *E. brachystachyus*), L.Boulos, *Flora of Egypt* 4 (2005) (242, Pl. 71), N.L.Bor, *The grasses of Burma, Ceylon, India and Pakistan* (1960) (as *E. brachystachyus*), M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (288), F.W.Gould, *The Grasses of Texas* (1975) (381, Fig. 202), S.A.Renvoize, *Gramineas de Bolivia* (1998) (290, Fig 59), E.G.Nicora, *Los Generos de Gramineas de America Austral* (1987) (355, Fig. 122), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 637).

Illustrations (Journals): *Ruizia* (13:239, Fig 27c-e (1993)).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): in honor of Itienne Imile Desvaux (1830–1854) French botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual or perennial, caespitose. Butt sheaths persistent and investing base of culm, with fibrous dead sheaths. Culms 3–40 cm long, wiry. Culm-internodes distally pubescent. Ligule a fringe of hairs. Leaf-blades filiform, involute, 5–10 cm long, 1–2 mm wide. Leaf-blade surface pilose, with capitate hairs.

Inflorescence. Inflorescence a panicle. Panicle spiciform, oblong or ovate, 2–8 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 2.8–5.5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 2.5–5 mm long, 0.9 length of upper glume, membranous, grey, without keels, 3–9 -veined. Lower glume surface pubescent. Lower glume apex acute. Upper glume ovate, 2.8–5.5 mm long, 1.8–2.8 length of adjacent fertile lemma, membranous, grey, without keels, 3–9 -veined. Upper glume surface pubescent. Upper glume apex acute.

Florets. Fertile lemma oblong, 1.5–2 mm long, chartaceous, without keel, 9 -veined, more than 3-veined. Lemma surface villous, hairy below. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 2.5–5 mm long overall, limb ciliate, glabrescent towards tip. Lateral lemma awns present, arising on apex of lobes, subequal to principal, ciliate. Palea keels ciliolate. Apical sterile florets 2 in number, dissimilar. First apical floret male, oblong, villous. Apical sterile florets barren, rudimentary. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns 0.3–0.8 mm long, ciliate.

Flower and Fruit. Lodicules 2. Anthers 3, 0.3–0.5 mm long. Caryopsis with adherent pericarp. Hilum punctiform.

Cleistogenes present, in lower sheaths.

Distribution (TDWG). Continent. Europe (*), Africa, Temperate Asia, Tropical Asia, North America, South America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Northern Africa, Macaronesia, West tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa.** Algeria, Egypt, Libya, Tunisia. Canary Is, Cape Verde. Niger. Chad, Eritrea, Ethiopia (inc. Eritrea), Socotra, Somalia, Sudan. Kenya, Tanzania. Angola, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Free State, Northern Cape, Western Cape, Eastern Cape. Siberia, **Middle Asia, Western Asia, Arabian Peninsula, China, Mongolia, Russia.** Buryatiya, Chita, Irkutsk, Krasnoyarsk. Kazakhstan, Kirgizistan. Iran. Gulf States, Oman, Saudi Arabia. China South Central, Inner Mongolia, Manchuria, China North-Central, Qinghai, China Southeast, Xinjiang. Mongolia. **Indian Subcontinent.** India, Pakistan. **North-central USA, Southwestern USA, South-central USA, Mexico.** Oklahoma. Arizona, California, Nevada, Utah. New Mexico, Texas. Central Mexico, Northeast Mexico, Gulf (Mexico), Northwest Mexico, Southwest Mexico. **Western South America, Southern South America.** Bolivia, Peru. Argentina Northwest, Chile North.

TDWG4. Hebei, Shanxi. Anhui. Yunnan. Gujarat. Rajasthan. Jujuy. Tarapaca, Antofagasta. Distrito Federal, Mexico State, Puebla. Aguascalientes, Coahuila, Chihuahua, Durango, Guanajuato, Hidalgo, Neuvo Leon, Queretaro, San Luis Potosi, Tamaulipas, Zacatecas. Baja California, Baja California Sur, Sonora. Jalisco, Michoacan, Oaxaca.

Enneapogon eremophilus E.K.Z. Kakudidi. *Austral. Syst. Bot.* 1(4): 338 (1989).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Palm Valley: *Latz 4352* (CANB holo, AD, NT).

Illustrations (Books): No illustration found (BKS).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): Gk. eremos, desert; phileo, love. Desert species.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 13–36 cm long. Lateral branches ample. Leaf-sheaths longer than adjacent culm internode. Ligule a fringe of hairs. Leaf-blades 1–3 mm wide. Leaf-blade surface scaberulous, glabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Peduncle antrorsely scabrous above. Panicle spiciform, linear, 1.5–6.5 cm long, 1 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 2.5–5.4 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 2.5–5.4 mm long, 1 length of upper glume, membranous, without keels, 4–9 -veined. Lower glume surface pubescent, with capitate hairs. Lower glume apex truncate or obtuse. Upper glume ovate, 2.5–5.4 mm long, 1.2–1.5 length of adjacent fertile lemma, membranous, without keels, 4–9 -veined. Upper glume surface pubescent, with capitate hairs. Upper glume apex truncate or obtuse.

Florets. Fertile lemma oblong, 2–3.5 mm long, cartilaginous or coriaceous, without keel, 9 -veined, more than 3-veined. Lemma lateral veins without ribs or ribbed. Lemma surface pubescent, hairy below, inner surface glabrous. Lemma margins eciliate or ciliolate. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 2–4 mm long overall, limb ciliate (lower 0.33–0.5 of length). Lateral lemma awns present, arising on apex of lobes, subequal to principal, ciliate. Palea cartilaginous. Palea keels scaberulous, eciliate, adorned all along. Palea surface glabrous. Rhachilla extension glabrous or pubescent, hairy at tip. Apical sterile florets 3–4 in number, barren, in a clump. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns ciliate.

Flower and Fruit. Lodicules 2. Anthers 3. Caryopsis with adherent pericarp, ellipsoid or oblong, 1.3–1.8 mm long. Hilum punctiform.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory, Queensland.

Ereman. Victoria R & Barkly Tableland, Central Australia. North, Inland.

Enneapogon gracilis (R.Br.) Beauv. *Agrost.* 161 (1812).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Pappophorum gracile* R. Br., *Prodr.* 185 (1812). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *R. Brown 6252*, Australia: Queensland: Broad Sound (BM).

Illustrations (Books): N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (554, Fig 110), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (240), J.C.Tothill,& J.B.Hacker. *The grasses of southern Queensland* (1983) (220), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (190, Fig. 29), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. slender. Culms or inflorescences slender.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual or perennial. Rootstock evident. Culms 22–30 cm long. Lateral branches ample. Ligule a fringe of hairs. Leaf-blades filiform, convolute, 1–2 mm wide. Leaf-blade surface glabrous or pubescent. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle. Peduncle antrorsely scabrous above. Panicle spiciform, linear, 3–4 cm long, 1 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4.6–8.8 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 3.6–5 mm long, 0.7–0.8 length of upper glume, membranous, without keels, 9–15 -veined. Lower glume surface pubescent, with capitate hairs. Lower glume apex acute or acuminate. Upper glume ovate, 4.6–8.8 mm long, 3–4 length of adjacent fertile lemma, membranous, without keels, 7–11 -veined. Upper glume surface pubescent, with capitate hairs. Upper glume apex acute or acuminate.

Florets. Fertile lemma oblate, 1.6–2.2 mm long, coriaceous, firmer above (knuckled), without keel, 9–11 -veined, more than 3-veined. Lemma lateral veins without ribs or ribbed. Lemma surface pilose, hairy below, inner surface transversely fringed. Lemma margins eciliate or ciliate. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 3–9 mm long overall, 2 length of lemma, limb plumose, glabrescent towards tip. Lateral lemma awns present, arising on apex of lobes, subequal to principal, of unequal width (outer wider), plumose. Palea membranous. Palea keels ciliate, adorned all along or above, with 0.75–1 of their length adorned. Palea surface pubescent, hairy on back, hairy all along. Palea apex awned. Apical sterile florets 2 in number, barren. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns ciliate.

Flower and Fruit. Lodicules 2. Anthers 3. Caryopsis with adherent pericarp, ellipsoid or oblong or obovoid, concavo-convex, 1–1.8 mm long. Hilum punctiform.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland, New South Wales, Victoria. North, Central, South East, Inland. Tablelands, Western Slopes, Western Plains.

Enneapogon intermedius N. T. Burbidge. *Proc. Linn. Soc., Lond., Sess.* 153 : 67, 68 (1941).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Alpha: *Hubbard 7881* (K holo, BRI).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (333, Fig 266), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (241), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (191, Fig 29).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. intermediate. Having affinities with but distinct from other species.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Butt sheaths pilose. Culms 30–70 cm long. Culm-internodes distally glabrous or hirsute. Ligule a fringe of hairs. Leaf-blades involute, 1–2 mm wide. Leaf-blade surface glabrous or pubescent. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle. Peduncle antrorsely scabrous above. Panicle spiciform, linear or oblong, continuous or interrupted, 5–9 cm long, 1.5–2.4 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4.5–6.6 mm long, breaking up at maturity, disarticulating above glumes but not between florets.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 3.5–4.5 mm long, 0.7–0.8 length of upper glume, membranous, without keels, 7–16 -veined. Lower glume surface asperulous, pilose, with capitate hairs. Lower glume apex entire or erose, truncate or obtuse. Upper glume ovate, 4.5–6.6 mm long, 1.8–2.2 length of adjacent fertile lemma, membranous, without keels, 7–11 -veined. Upper glume surface pilose, with capitate hairs. Upper glume apex entire or erose, truncate or obtuse.

Florets. Fertile lemma orbicular, 2–3.6 mm long, cartilaginous, of similar consistency on margins or much thinner on margins, without keel, 9 -veined, more than 3-veined. Lemma lateral veins obscure. Lemma surface pubescent, hairy below, inner surface transversely fringed. Lemma margins eciliate or ciliate. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 3.6–6 mm long overall, 1.5–1.8 length of lemma, limb plumose, glabrescent towards tip. Lateral lemma awns present, arising on apex of lobes, subequal to principal, of unequal width (mid and outer wider), plumose. Palea 1 length of lemma, membranous. Palea keels ciliate, adorned above, with 0.5–0.75 of their length adorned. Palea surface pubescent, hairy on back or on flanks, hairy all along. Palea apex obtuse or acute. Rhachilla extension pubescent, hairy at tip. Apical sterile florets 1–3 in number, barren. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns ciliate.

Flower and Fruit. Lodicules 2. Anthers 3. Caryopsis with adherent pericarp, ellipsoid or obovoid, concavo-convex, 1.3–2.2 mm long. Hilum punctiform.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, South Australia, Queensland, New South Wales.

Ereman, South-West. Victoria R & Barkly Tableland. NW & Lake Eyre, Southern. North, Central, South East, Inland. Western Slopes, Western Plains.

Enneapogon lindleyanus (Domin) C. E. Hubbard. *Kew Bull.* 1934, 450 (1934).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Pappophorum lindleyanum* Domin, *Biblioth. Bot.* 20: 379 (1915). T:<Type of Basionym>; *vide* TROPICOS and Kew Synonymy Database: LT: *Walcot s.n.*, Australia: Western Australia: Dampier Archipelago (K). LT designated (as type) by Burbidge, *Proc. Linn. Soc. London* 153: 82–83 (1941).

Enneapogon oblongus N. T. Burbidge, *Proc. Linn. Soc., Lond., Sess.* 153 : 85, 86 (1941).

Enneapogon pubescens (Domin) N. T. Burbidge, *Proc. Linn. Soc., Lond., Sess.* 153 : 83 (1941).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (334, Fig. 267), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (241), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (190, Fig. 29), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (192, Fig. 30), K.Domin, *Bibliotheca Botanica* 85 (1915) (Pl.14 as *Pappophorum lindleyanum* var. *laguroides*).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. -ana, indicating connection. In honor of John Lindley (1799–1865) English botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms 20–62 cm long. Culm-internodes distally hirsute. Lateral branches ample, arising from lower culm or upper culm. Ligule a fringe of hairs. Leaf-blades filiform, involute, 1–4 mm wide. Leaf-blade surface scaberulous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Peduncle antrorsely scabrous above or retrorsely scabrous above. Panicle capitate, elliptic or ovate or globose, 0.5–1.5 cm long, 0.5–1 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 2–4 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 2–4 mm long, 1 length of upper glume, membranous, without keels, 5–7 -veined. Lower glume surface glabrous or pilose. Lower glume apex erose, truncate, muticous or mucronate. Upper glume ovate, 2–4 mm long, 1.2–1.5 length of adjacent fertile lemma, membranous, without keels, 5–7 -veined. Upper glume surface glabrous or pilose. Upper glume apex erose, truncate, muticous or mucronate.

Florets. Fertile lemma oblong, 1.6–2.6 mm long, membranous or cartilaginous, without keel, 9 -veined, more than 3-veined. Lemma lateral veins ribbed. Lemma surface pilose, hairy below (0.33–0.5 of length), inner surface transversely fringed. Lemma margins ciliate. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal

lemma awn 1.3–2.5 mm long overall, 0.8–1 length of lemma, limb plumose, hairy throughout limb. Lateral lemma awns present, arising on apex of lobes, subequal to principal, plumose. Palea membranous. Palea keels ciliate, adorned above, with 0.5–0.66 of their length adorned. Palea surface pubescent, hairy on back, hairy all along. Apical sterile florets 2–3 in number, barren. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns ciliate.

Flower and Fruit. Lodicules 2. Anthers 3. Caryopsis with adherent pericarp, ellipsoid or obovoid, plano-convex, 1.3–2 mm long, obtuse. Hilum punctiform.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, South Australia, Queensland.

Kimberley, Ereman. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre, Southern. North, Central, South East, Inland. Western Slopes.

Enneapogon lophotrichus Chiov. ex H. Scholz & P. König. *Willdenowia* 13(2): 369 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ethiopia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: T: *Corradi* 860, Ethiopia: Fortino di Dande (FI).

Illustrations (Books): S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (90, Fig 37), L.Boulos, *Flora of Egypt* 4 (2005) (242, Pl. 71).

Derivation (Clifford & Bostock 2007): Gk. lophos, crest; thrix, hair. The nine lemma awns are invested with hairs at the base causing it to resemble a crest.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms decumbent, 5–20 cm long. Leaf-sheaths pubescent, with capitate hairs. Ligule a fringe of hairs. Leaf-blades 2–5 cm long, 1–2 mm wide.

Inflorescence. Inflorescence a panicle. Panicle contracted, oblong, 1–4 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–7 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume elliptic, 3.5–5 mm long, 0.7 length of upper glume, membranous, without keels, 7–9 -veined. Lower glume lateral veins ribbed. Lower glume apex acute. Upper glume elliptic, 5–7 mm long, 3 length of adjacent fertile lemma, membranous, without keels, 5–7 -veined. Upper glume lateral veins ribbed. Upper glume apex acute.

Florets. Fertile lemma oblong, 1.5–2.5 mm long, chartaceous, without keel, 9 -veined, more than 3-veined. Lemma surface pubescent, with a transverse row of hair tufts (at base), bearing 3 hair tufts in all, inner surface transversely fringed. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 4.5–6 mm long overall, limb ciliate, glabrescent towards tip. Lateral lemma awns present, arising on apex of lobes, subequal to principal, ciliate. Palea keels ciliate. Palea surface pubescent, hairy on back or on flanks. Apical sterile florets 2–3 in number, dissimilar. First apical floret oblong, 0.5 mm long, glabrous, awned. Apical sterile florets barren, in a clump, rudimentary. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns 3.5 mm long, ciliate.

Flower and Fruit. Lodicules 2. Anthers 3, 0.3–0.8(–1.2) mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa, Temperate Asia.

Country /Province /State. Northern Africa, Northeast tropical Africa, East tropical Africa. Egypt. Djibouti, Eritrea, Ethiopia (inc. Eritrea), Somalia, Sudan. Kenya. **Arabian Peninsula.** Oman, Saudi Arabia.

Enneapogon nigricans (R.Br.) Beauv. *Agrost.* 161 (1812).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Pappophorum nigricans* R. Br., *Prodr.* 185 (1812). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *R. Brown* 6249 in part, Australia: New South Wales: Port Jackson (BM). LT designated (as type) by Burbidge, *Proc. Linn. Soc. London* 153: 76–77 (1941).

Recent Synonyms: *Enneapogon arenicola* (Domin) N. T. Burbidge, *Proc. Linn. Soc., Lond., Sess.* 153, 77 (1941).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (335, Fig 268), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (554, Fig 110), S.W.L.Jacobs, R.D.B.Whalley

& D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (241), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (190, Fig. 29), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (192, Fig 30), K.Domin, *Bibliotheca Botanica* 85 (1915) (Pl.14 as *Pappophorum nigricans* var. *gracile*).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): *L. nigricans*, become blackish. Becoming black with maturity, usually of spikelets.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms 30–40 cm long. Culm-internodes distally pubescent. Lateral branches lacking or sparse. Ligule a fringe of hairs. Leaf-blades flat or involute, 1–2 mm wide. Leaf-blade surface pubescent, with simple hairs or capitate hairs. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle. Peduncle antrorsely scabrous above. Panicle spiciform, lanceolate or oblong, 3–7 cm long, 1–1.5 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 4–5 mm long, 1 length of upper glume, membranous, without keels, 5–7 -veined. Lower glume surface smooth or asperulous, glabrous or pubescent. Lower glume apex obtuse to acuminate. Upper glume ovate, 4–5 mm long, 1.6 length of adjacent fertile lemma, membranous, without keels, 5–7 -veined. Upper glume surface smooth or asperulous, glabrous or pubescent. Upper glume apex obtuse to acuminate.

Florets. Fertile lemma orbicular, 2.5–3 mm long, cartilaginous, without keel, 9 -veined, more than 3-veined. Lemma lateral veins obscure. Lemma surface pilose, hairy below (0.66–0.75 of length), inner surface transversely fringed. Lemma margins ciliate. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 5–6 mm long overall, 2 length of lemma, limb plumose, glabrescent towards tip. Lateral lemma awns present, arising on apex of lobes, subequal to principal, plumose. Palea 2.5–3 mm long, 1 length of lemma, membranous. Palea keels ciliate, adorned above, with 0.5–0.75 of their length adorned. Palea surface pubescent, hairy on back, hairy all along. Apical sterile florets 3–4 in number, barren. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns ciliate.

Flower and Fruit. Lodicules 2. Anthers 3, 1 mm long. Caryopsis with adherent pericarp, ellipsoid or obovoid, plano-convex, 1.3–2.2 mm long. Hilum punctiform.

Distribution (TDWG). **Continent.** Europe (*), Australasia.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Australia.** South Australia, Queensland, New South Wales, A.C.T., Victoria.

NW & Lake Eyre, Southern. North, Central, South East, Inland. Coast, Tablelands, Western Slopes, Western Plains.

Enneapogon pallidus (R.Br.) Beauv. *Agrost.* 162 (1812).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), J.F.Veldkamp, *Poaceae* ms (*Flora Malesiana*).

TYPE from Australia. **Basionym or Replaced Name:** *Pappophorum pallidum* R. Br., *Prodr.* 185 (1812). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *R. Brown*, Australia.

Illustrations (Books): E.E.Henty, *A Manual of the Grasses of New Guinea* (1969) (78, Pl. 28).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): *L. pale-colored*. Spikelets or grain pale-green.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms 30–88 cm long. Lateral branches ample. Ligule a fringe of hairs. Leaf-blades flat or involute, 1–3 mm wide. Leaf-blade surface pubescent. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Peduncle antrorsely scabrous above or retrorsely scabrous above, pubescent above to hirsute above. Panicle contracted or spiciform, linear or pyramidal, 5–8 cm long, 1–2.5 cm wide. Primary panicle branches 1–4.5 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–6.3 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 3–6.3 mm long, 1 length of upper glume, membranous, without keels, 7–9 -veined. Lower glume surface pilose. Lower glume apex entire or erose, truncate or obtuse, muticous or mucronate. Upper glume ovate, 3–6.3 mm long, 1.5–2 length of adjacent fertile lemma, membranous, without keels, 7–9 -veined. Upper glume surface pilose. Upper glume apex entire or erose, truncate or obtuse, muticous or mucronate.

Florets. Fertile lemma orbicular, 2–3.4 mm long, cartilaginous, without keel, 9 -veined, more than 3-veined. Lemma lateral veins without ribs or ribbed. Lemma surface pilose, hairy below, inner surface transversely fringed. Lemma margins ciliate. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 3–6 mm long overall, 1.5–2 length of lemma, limb plumose, glabrescent towards tip. Lateral lemma awns present, arising on apex of lobes, subequal to principal, plumose. Palea 1.1 length of lemma, membranous. Palea keels ciliate, adorned above, with 0.5–0.75 of their length adorned. Palea surface pubescent, hairy on back, hairy all along. Apical sterile florets 2 in number, barren. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns ciliate.

Flower and Fruit. Lodicules 2. Anthers 3. Caryopsis with adherent pericarp, ellipsoid or obovoid, concavo-convex, 1.3–2 mm long. Hilum punctiform.

Distribution (TDWG). Continent. Tropical Asia, Australasia.

Country /Province /State. **Malesia, Papuasia.** Lesser Sunda Is. New Guinea. **Australia.** Western Australia, Northern Territory, Queensland.

Kimberley, Eremean. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. North, Central, South East, Inland.

Enneapogon persicus Boiss. *Diagn. Ser.* 1, 5: 71 (1844).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (& as *E. elegans*), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Iran. **Basionym or Replaced Name:** *Enneapogon schimperanus* (Hochst. ex A. Rich.) Renvoize, *Kew Bull.* 22: 400 (1968). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Iran.; *Aucher-Eloy* 5430 (HT: P; IT: K, LE).

Illustrations (Books): N.N.Tsvelev, *Grasses of the Soviet Union* (1983) (945 (625), Pl.13), N.Feinbrun-Dothan, *Flora Palaestina* 4 (1986) (Pl. 369), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (90, Fig 37), L.Boulos, *Flora of Egypt* 4 (2005) (242, Pl. 71), N.L.Bor, *Gramineae in Flora of Iraq* (1968) (419, Pl. 158), N.L.Bor, *The grasses of Burma, Ceylon, India and Pakistan* (1960) (608, Fig 70 & as *E. elegans*), K.M.Matthew, *Illustrations on the Flora of Tamilnadu Carnatic* (1982) (Pl. 859 & 860 as *E. elegans*), T.A.Cope, *Flora of Pakistan* 143: *Poaceae* (1982) (59, Fig 8).

Derivation (Clifford & Bostock 2007): L. -ica, belonging to. From Persia, now Iran.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 10–70 cm long, wiry. Culm-internodes distally pubescent. Culm-nodes bearded. Ligule a fringe of hairs. Leaf-blades involute, 3–18 cm long, 2–4 mm wide, stiff, glaucous. Leaf-blade surface pilose, with capitate hairs.

Inflorescence. Inflorescence a panicle. Panicle contracted or spiciform, linear or lanceolate, 3–10 cm long, 1.5–2 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5.5–11.5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume lanceolate or ovate, 4–10 mm long, 0.6–0.9 length of upper glume, membranous, grey, without keels, 5–9 -veined. Lower glume surface pubescent. Lower glume apex acute. Upper glume lanceolate or ovate, 5.5–11.5 mm long, 2–4 length of adjacent fertile lemma, membranous, grey, without keels, 5–9 -veined. Upper glume surface pubescent. Upper glume apex acute.

Florets. Fertile lemma oblong, 1.5–3 mm long, chartaceous, without keel, 9 -veined, more than 3-veined. Lemma surface villous, hairy below. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 5–10 mm long overall, limb ciliate, glabrescent towards tip. Lateral lemma awns present, arising on apex of lobes, subequal to principal, ciliate. Palea keels ciliate. Apical sterile florets 2 in number, dissimilar. First apical floret male, oblong, villous. Apical sterile florets barren, in a clump, rudimentary. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns 4–7 mm long, ciliate.

Flower and Fruit. Lodicules 2. Anthers 3, 0.5–1.4 mm long. Caryopsis with adherent pericarp. Hilum punctiform.

Distribution (TDWG). Continent. Europe, Africa, Temperate Asia, Tropical Asia.

Region. Southwestern Europe.

Country /Province /State. : Spain. **Northern Africa, West tropical Africa, Northeast tropical Africa, East tropical Africa.** Egypt. Mali, Niger. Eritrea, Ethiopia (inc. Eritrea), Socotra, Somalia, Sudan. Kenya, Tanzania, Uganda. **Middle Asia, Caucasus, Western Asia, Arabian Peninsula, China.** Turkmenistan, Tadjikistan, Uzbekistan. Afghanistan, Iran, Iraq. Gulf States, Oman. Xinjiang. **Indian Subcontinent, Indo-China.** India, Pakistan, West Himalaya. Myanmar.

TDWG4. Tamilnadu.

Enneapogon polyphyllus (Domin) N. T. Burbidge. *Proc. Linn. Soc., Lond., Sess.* 153 : 69 (1941).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Pappophorum nigricans* var. *polyphyllum* Domin, *Biblioth. Bot.* 20: 381 (1915). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Mueller s.n.*, Dec 1855, Australia: Northern Territory: Victoria River (PR).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (336, Fig 269), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (31, Pl 7), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (241), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (190, Fig. 29), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (192, Fig 30), D.Sharp & B.K.Simon, *AusGrass*. *Grasses of Australia*. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. *Grasses of Australia*. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): Gk. polys, several; phyllon, leaf. Culms many-leaved in comparison with related species.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual or perennial. Culms 3–48 cm long. Lateral branches sparse. Ligule a fringe of hairs. Leaf-blades involute or convolute, 1–3 mm wide. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle. Peduncle antrorsely scabrous above. Panicle spiciform, linear to elliptic, 4–9 cm long, 1–2 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–9 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 4–9 mm long, 1 length of upper glume, membranous, without keels, 9–13 -veined. Lower glume surface pubescent, with simple hairs or capitate hairs. Lower glume apex entire or erose, acute or acuminate, mucicous or mucronate. Upper glume ovate, 4–9 mm long, 2–3 length of adjacent fertile lemma, membranous, without keels, 5–7 -veined. Upper glume surface pubescent, with simple hairs or capitate hairs. Upper glume apex entire or erose, acute or acuminate, mucicous or mucronate.

Florets. Fertile lemma orbicular, 2–3(–4.2) mm long, coriaceous, much thinner on margins, without keel, 9 -veined, more than 3-veined. Lemma lateral veins without ribs or ribbed. Lemma surface pilose, hairy below, inner surface transversely fringed. Lemma margins eciliate or ciliate. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 4–7 mm long overall, 2 length of lemma, limb plumose, glabrescent towards tip. Lateral lemma awns present, arising on apex of lobes, subequal to principal, of unequal width (outer wider), plumose. Palea 1 length of lemma, membranous. Palea keels ciliolate, adorned above, with 0.5–0.66 of their length adorned. Palea surface pubescent, hairy on back, hairy below. Rhachilla extension 1–1.2 mm long. Apical sterile florets 4–5 in number, dissimilar. First apical floret glabrous. Apical sterile florets barren, in a clump. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns ciliate.

Flower and Fruit. Lodicules 2. Anthers 3. Caryopsis with adherent pericarp, ellipsoid or obovoid, concavo-convex, 1–2 mm long. Hilum punctiform.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. **Australia.** Western Australia, Northern Territory, South Australia, Queensland, New South Wales.

Kimberley, Ereman. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre, Southern. North, Central, South East, Inland. Tablelands, Western Slopes, Western Plains.

Enneapogon pretoriensis Stent. *Bothalia* 1: 174 (1922).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *Burt Davy 8905*, South Africa: Transvaal: Pretoria, Wonderboom (PRE). LT designated (as holotype) by Renvoize, Kew Bull. 22: 399 (1968).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (236, Fig 209).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From Pretoria, South Africa.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Butt sheaths persistent and investing base of culm. Culms erect or geniculately ascending, 30–75 cm long, wiry, 2–5 -noded. Ligule a fringe of hairs. Leaf-blades involute, 5–25 cm long, 2–4 mm wide, stiff. Leaf-blade surface pilose, with capitate hairs. Leaf-blade apex filiform.

Inflorescence. Inflorescence a panicle. Panicle contracted, oblong, 5–15 cm long. Primary panicle branches appressed or ascending, 2–5 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5.5–7 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 4–6 mm long, 0.9 length of upper glume, membranous, grey or dark brown (at tip), without keels, 7–9 -veined. Lower glume apex acute. Upper glume ovate, 4.4–6.6 mm long, 1.7–2 length of adjacent fertile lemma, membranous, grey or dark brown (at tip), without keels, 5 -veined. Upper glume apex acute.

Florets. Fertile lemma oblong, 2.5–3 mm long, chartaceous, without keel, 9 -veined, more than 3-veined. Lemma surface villous, hairy below. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 2–4.25 mm long overall, limb ciliate. Lateral lemma awns present, arising on apex of lobes, subequal to principal, ciliate. Palea keels ciliolate. Apical sterile florets 2 in number, dissimilar. First apical floret male, oblong, villous. Apical sterile florets barren, in a clump, rudimentary. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns ciliate.

Flower and Fruit. Lodicules 2. Anthers 3, 2.3–2.7 mm long. Caryopsis with adherent pericarp. Hilum punctiform.

Distribution (TDWG), Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa. Botswana, Limpopo, North-West, Gauteng, Mpumalanga.

Enneapogon purpurascens (R.Br.) Beauv. *Agrost.* 162 (1812).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Pappophorum purpurascens* R. Br., *Prodr.* 185 (1812). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *R. Brown 6250*, Australia: Queensland: Carpenteria (BM).

Illustrations (Books): J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (1161, Fig. 330).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): L. purpurasco, become purple. Inflorescences reddish-purple.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual or perennial. Culms 6–75 cm long. Leaf-sheaths longer than adjacent culm internode. Ligule a fringe of hairs. Leaf-blades curled, 1–3 mm wide, glaucous. Leaf-blade surface scabrous. Leaf-blade apex attenuate, filiform.

Inflorescence. Inflorescence a panicle. Peduncle antrorsely scabrous above. Panicle spiciform, linear to oblong, 1.5–11 cm long, 1–1.5 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3.5–5.5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 3.5–5.5 mm long, 1 length of upper glume, membranous, without keels, 7–11 -veined. Lower glume surface pilose. Lower glume apex erose, acute or acuminate. Upper glume ovate, 3.5–5.5 mm long, 2 length of adjacent fertile lemma, membranous, without keels, 7–11 -veined. Upper glume surface pilose. Upper glume apex erose, acute or acuminate.

Florets. Fertile lemma orbicular, 1.6–2.5 mm long, coriaceous, without keel, 9 -veined, more than 3-veined. Lemma lateral veins obscure. Lemma surface pilose, hairy below, inner surface transversely fringed. Lemma margins eciliate or ciliolate. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 4–5 mm long

overall, 2 length of lemma, limb plumose, glabrescent towards tip. Lateral lemma awns present, arising on apex of lobes, subequal to principal, of unequal width (outer wider), plumose. Palea membranous. Palea keels ciliolate, adorned above, with 0.5–0.66 of their length adorned. Palea surface pubescent, hairy on back, hairy below. Apical sterile florets 2–4 in number, barren. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns ciliate.

Flower and Fruit. Lodicules 2. Anthers 3. Caryopsis with adherent pericarp, ellipsoid or obovoid, concavo-convex, 1–2 mm long. Hilum punctiform.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland.

Kimberley. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. North, Central, Inland.

Enneapogon robustissimus (Domin) N. T. Burbidge. *Proc. Linn. Soc., Lond., Sess.* 153 : 78 (1941).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia, Queensland. **Basionym or Replaced Name:** *Pappophorum nigricans* var. *robustissimum* Domin, *Biblioth. Bot.* 20: 381(1915). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Queensland: on the Flinders River at Hughenden, Jan 1910, *Domin s.n.* (HT: PR).

Recent Synonyms: *Enneapogon clelandii* N. T. Burbidge, *Proc. Linn. Soc., Lond., Sess.* 153 : 80, 81 (1941).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (337, Fig 270), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): L. most robust. Culms very tall for the genus.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Butt sheaths pilose. Culms 31–107 cm long, 7 -noded. Lateral branches lacking or sparse. Leaf-sheaths glabrous on surface or pubescent. Ligule a fringe of hairs. Leaf-blades flat or involute, 1–5 mm wide. Leaf-blade surface scaberulous (tetrorsely). Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Peduncle retrorsely scabrous above. Panicle spiciform, lanceolate, 3–11 cm long, 1.5–2.5 cm wide. Primary panicle branches 0.5–2.5 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–5.6 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 3–5.6 mm long, 1 length of upper glume, membranous, without keels, 5–7 -veined. Lower glume surface scabrous, glabrous. Lower glume apex erose, truncate or obtuse, mucronate. Upper glume ovate, 3–5.6 mm long, 2.5 length of adjacent fertile lemma, membranous, without keels, 5–7 -veined. Upper glume surface scabrous, glabrous. Upper glume apex erose, truncate or obtuse, muticous or mucronate.

Florets. Fertile lemma oblong, 2–2.5 mm long, membranous, without keel, 9–11 -veined, more than 3-veined. Lemma lateral veins ribbed. Lemma surface pilose, hairy below (0.5–0.66 of length), inner surface transversely fringed. Lemma margins ciliate. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 3.3–4.6 mm long overall, 2 length of lemma, limb plumose, glabrescent towards tip. Lateral lemma awns present, arising on apex of lobes, subequal to principal, plumose. Palea membranous. Palea keels ciliate, adorned above, with 0.5–0.66 of their length adorned. Palea surface pubescent or pilose, hairy on back, hairy all along. Palea apex muticous or awned. Apical sterile florets 4 in number, barren. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns ciliate.

Flower and Fruit. Lodicules 2. Anthers 3. Caryopsis with adherent pericarp, ellipsoid or obovoid, plano-convex, 1.3 mm long. Embryo 0.8–0.9 length of caryopsis. Hilum punctiform.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, South Australia, Queensland.

Ereman. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. Southern. North, Central, South East.

Enneapogon scaber Lehm. *Pugill.* 3 : 41 (1831).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Habitat in Promontorio Bonae Spei, in terrae tractu, qui vocatur Beaufort. (v. s.),.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (235, Fig 208), M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984), L.Boulos, *Flora of Egypt* 4 (2005).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. rough or gritty to the touch. Plants with rough leaf-blades, spikelets or stems.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 15–35 cm long. Leaf-sheaths pubescent, with capitate hairs. Ligule a fringe of hairs. Leaf-blades 3–20 cm long, 1–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle contracted, oblong, 2–7 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4.5–6.5 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pilose.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume elliptic, 3.6–5.2 mm long, 0.8 length of upper glume, membranous, without keels, 7 -veined. Lower glume lateral veins ribbed. Lower glume apex acute. Upper glume elliptic, 4.5–6.5 mm long, 1.3 length of adjacent fertile lemma, membranous, without keels, 5 -veined. Upper glume lateral veins ribbed. Upper glume apex acute.

Florets. Fertile lemma oblong, 4.5–6.5 mm long, chartaceous, without keel, 9 -veined, more than 3-veined. Lemma surface villous, inner surface transversely fringed. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 1.5 mm long overall, limb glabrous. Lateral lemma awns present, arising on apex of lobes, subequal to principal, glabrous. Palea keels ciliolate. Palea surface pubescent, hairy on back. Apical sterile florets 1 in number, barren, oblong, 0.3–0.6 mm long. Apical sterile lemmas dentate, 9 -fid, awned, 9 -awned. Apical sterile lemma awns 1–1.3 mm long, glabrous.

Flower and Fruit. Lodicules 2. Anthers 3, 1.3–2.7 mm long. Caryopsis with adherent pericarp.

N = 20 (1 ref TROPICOS).

Distribution (TDWG). **Continent.** Africa, Temperate Asia.

Country /Province /State. **Northern Africa, West tropical Africa, Northeast tropical Africa, South tropical Africa, Southern Africa.** Algeria, Egypt, Morocco, Tunisia. Mauritania. Eritrea, Ethiopia (inc. Eritrea), Somalia. Angola. Namibia, Botswana, North-West, Free State, Northern Cape, Western Cape. **Arabian Peninsula.** Saudi Arabia.

Enneapogon scoparius Stapf. Dyer, *Fl. Cap.* 7: 656 (1900).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *Burchell* 2674, South Africa (K). LT designated (as holotype) by Renvoize, *Kew Bull* 22: 397 (1968).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (237, Fig 210), M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. scopae, broom; -aria, pertaining to. Inflorescences condensed resembling a broom.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Butt sheaths thickened and forming a bulb, persistent and investing base of culm. Culms erect or geniculately ascending, 20–80 cm long, wiry. Ligule a fringe of hairs. Leaf-blades erect or ascending, filiform, convolute, 5–20(–25) cm long, 1–3 mm wide, stiff. Leaf-blade surface pilose, with capitate hairs. Leaf-blade apex filiform.

Inflorescence. Inflorescence a panicle. Panicle spiciform, oblong, 1.5–12 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3.5–4.5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 2.5–5 mm long, 0.7 length of upper glume, membranous, grey, without keels, 3–7 -veined. Lower glume surface pubescent. Lower glume apex acute. Upper glume oblong, 3.4–7 mm long, 1.5–3 length of adjacent

fertile lemma, membranous, grey, without keels, 3–6 -veined. Upper glume surface pubescent. Upper glume apex acute.

Florets. Fertile lemma oblong, 2 mm long, chartaceous, without keel, 9 -veined, more than 3-veined. Lemma surface villous, hairy below. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 2–3.5 mm long overall, limb ciliate. Lateral lemma awns present, arising on apex of lobes, subequal to principal, ciliate. Palea keels ciliate. Apical sterile florets 2 in number, dissimilar. First apical floret male, oblong, villous. Apical sterile florets barren, rudimentary. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns ciliate.

Flower and Fruit. Lodicules 2. Anthers 3, (0.8–)1.2–2.2 mm long. Caryopsis with adherent pericarp. Hilum punctiform.

$2n = 36$ (1 ref TROPICOS), or 40 (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa, Temperate Asia.

Country /Province /State. **Northeast tropical Africa, South tropical Africa, Southern Africa.** Eritrea, Ethiopia (inc. Eritrea), Somalia. Angola, Mozambique, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Lesotho, Northern Cape, Western Cape, Eastern Cape. **Arabian Peninsula.** Yemen.

Enneapogon spathaceus Goossens. *Kew Bull.* 1934, 200 (1934).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Pole Evans s.n.*, Transvaal: Zoutpansberg District: Messina, in Botanical reserve (PRE-110083).

ST: *Pole Evans s.n.*, Transvaal: Zoutpansberg District: Messina, in Botanical reserve (PRE-110084).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. spatha, spatula; -acea, indicating resemblance. Inflorescence pedunculate and so scarcely exerted from the uppermost leaf-sheath.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rootstock evident. Cataphylls evident. Rhizomes short. Culms erect or geniculately ascending, 60–90 cm long. Culm-internodes distally glabrous or pilose, with capitate hairs. Culm-nodes glabrous or pubescent. Lateral branches lacking or sparse. Leaf-sheaths longer than adjacent culm internode, glabrous on surface or pubescent, with tubercle-based hairs. Ligule a fringe of hairs. Leaf-blades persistent, convolute, 10–20 cm long, 2–4 mm wide. Leaf-blade surface pubescent or pilose, with tubercle-based hairs or capitate hairs.

Inflorescence. Inflorescence a panicle. Panicle open, linear or lanceolate, interrupted, loose, 7–14 cm long. Primary panicle branches 1 -nate, 1–2.5 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–7 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 5–7 mm long, membranous, without keels, 7 -veined. Lower glume surface pubescent, with tubercle-based hairs. Lower glume apex dentate, 2 -fid, acute, mucronate. Upper glume ovate, 5–7 mm long, membranous, without keels, 7 -veined. Upper glume surface pubescent, with tubercle-based hairs. Upper glume apex dentate, 2 -fid, mucronate.

Florets. Fertile lemma oblong, 2.5–3.5 mm long, chartaceous, without keel, 9 -veined, more than 3-veined. Lemma surface villous. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 4–4.5 mm long overall, limb plumose. Lateral lemma awns present, arising on apex of lobes, subequal to principal, plumose. Palea 3.5 mm long. Palea keels ciliate. Apical sterile florets 2 in number, dissimilar. First apical floret male, oblong, villous. Apical sterile florets barren, rudimentary. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns ciliate.

Flower and Fruit. Lodicules 2. Anthers 3, 2.5 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. **Southern Africa.** Limpopo.

Enneapogon truncatus E.K.Z. Kakudidi. *Austral. Syst. Bot.* 1(4): 350 (1989).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Emerald: *Hubbard 7930* (CANB holo, BRI, K).

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (242).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. truncus*, shorten by cutting off. Truncate with respect to apices of lemmas or glumes.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms 30–50 cm long. Lateral branches sparse. Ligule a fringe of hairs. Leaf-blades involute or convolute, 6–24 cm long, 2–3 mm wide. Leaf-blade surface scabrous, glabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Peduncle pilose above or hirsute above. Panicle spiciform, linear, 4–10 cm long, 0.8–1(–3) cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 2.8–6.4 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume lanceolate or ovate, 2.8–6.4 mm long, 1 length of upper glume, membranous, without keels, 5–7 -veined. Lower glume surface pubescent or pilose. Lower glume apex acute, muticous or mucronate. Upper glume elliptic, 2.8–6.4 mm long, 1.5–2 length of adjacent fertile lemma, membranous, without keels, 5–7 -veined. Upper glume surface pubescent or pilose. Upper glume apex acute.

Florets. Fertile lemma orbicular, 1.8–2.8 mm long, membranous or cartilaginous, firmer above (knuckled), without keel, 9–11 -veined, more than 3-veined. Lemma lateral veins ribbed. Lemma surface pilose, hairy below (0.5 of length), inner surface transversely fringed. Lemma margins ciliate. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 2.3–6.4 mm long overall, 1.3–2.3 length of lemma, limb plumose, glabrescent towards tip. Lateral lemma awns present, arising on apex of lobes, subequal to principal, plumose. Palea 2.6–3.6 mm long, 1.3–1.4 length of lemma, membranous. Palea keels ciliolate, adorned all along. Palea surface pubescent, hairy on back, hairy all along. Palea apex awned. Apical sterile florets 2–3 in number, barren. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns ciliate.

Flower and Fruit. Lodicules 2. Anthers 3, 0.6–0.9 mm long. Caryopsis with adherent pericarp, ellipsoid or obovoid, plano-convex, 1.1–1.8 mm long. Hilum punctiform.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland, New South Wales.

Central, South East. Tablelands, Western Slopes, Western Plains.

Enneapogon virens (Lindl.) E.K.Z. Kakudidi. *Austral. Syst. Bot.* 1(4): 351 (1989).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Pappophorum virens* Lindl., *J. Exped. Trop. Australia* 360 (1848). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Maranoa District: *Mitchell 521* (CGE holo).

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (242).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. vireo*, be green. Leaf-blades or culms unusually bright yellow-green.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms 10–60 cm long, wiry, 6 -noded. Lateral branches sparse. Ligule a fringe of hairs. Collar pilose. Leaf-blades involute, 1–3 mm wide. Leaf-blade surface scaberulous, glabrous. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle. Peduncle antrorsely scabrous above. Panicle spiciform, linear, 4.5–10 cm long, 1 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–8.2 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume lanceolate, 4–7.4 mm long, 0.9–1 length of upper glume, membranous, without keels, 9–11 -veined. Lower

glume surface pubescent or pilose, with simple hairs or capitate hairs. Lower glume apex obtuse or acuminate, muticous or mucronate. Upper glume lanceolate, 3.9–8.2 mm long, 2 length of adjacent fertile lemma, membranous, without keels, 7–9 -veined. Upper glume surface pubescent or pilose, with simple hairs or capitate hairs. Upper glume apex obtuse or acuminate.

Florets. Fertile lemma oblate, 2–3.8 mm long, cartilaginous or coriaceous, without keel, 9–11 -veined, more than 3-veined. Lemma lateral veins without ribs. Lemma surface pubescent, hairy all along, inner surface transversely fringed. Lemma margins ciliate. Lemma apex dentate, 9 -fid, awned, 9 -awned. Principal lemma awn 4.8–9 mm long overall, limb ciliate (lower 0.75–0.85 of length). Lateral lemma awns present, arising on apex of lobes, subequal to principal, ciliate. Palea membranous. Palea keels ciliolate or ciliate, adorned all along. Palea surface pubescent, hairy on back or on flanks. Apical sterile florets 3 in number, barren, in a clump. Apical sterile lemmas awned, 9 -awned. Apical sterile lemma awns ciliate.

Flower and Fruit. Lodicules 2. Anthers 3. Caryopsis with adherent pericarp, ellipsoid or oblong, plano-convex or concavo-convex, 1.3–1.9 mm long. Hilum punctiform.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland, New South Wales.

North, Central, South East, Inland. Western Slopes, Western Plains.

Enteropogon acicularis (Lindl.) Lazarides. *Austral. J. Bot. Suppl.* 5: 31 (1972).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Chloris acicularis* Lindl., J. Exped. Trop. Australia 33 (1848). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Mitchell 115*, 1846, Australia: New South Wales: Bogan River (CGE; photo of holotype at BRI).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (221, Pl 65 as *Chloris*), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (577, Fig 116), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (243), J.C.Tothill, & J.B.Hacker. *The grasses of southern Queensland* (1983) (156(13) & 224), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (293, Fig 49), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. J. Bot.* (Supp.5, 26: Fig.7 (1972)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): *L. acus*, needle; -ulus, diminutive; -are, pertaining to. Leaf-blades sharp-pointed.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 45–100 cm long, 3–6 -noded, without nodal roots or rooting from lower nodes. Leaf-sheaths eglandular or glandular. Leaf-sheath oral hairs lacking or bearded. Ligule an eciliate membrane, 1 mm long. Leaf-blades curled, 10–20 cm long, 2–4 mm wide. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 3–14, digitate, spreading, unilateral, 4.5–20 cm long. Rhachis angular. Spikelet packing broadside to rhachis, regular. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 7–11 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus evident, 1 mm long, pubescent, obtuse.

Glumes. Glumes persistent, similar, reaching apex of florets or exceeding apex of florets, thinner than fertile lemma, gaping. Lower glume linear, 2–5 mm long, 0.5 length of upper glume, membranous, without keels, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume linear, 5–11 mm long, 1–1.3 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, dorsally compressed, 6–8 mm long, coriaceous, keeled, 3 -veined, 0–3 -veined. Lemma surface scaberulous. Lemma apex dentate, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, 10–15 mm long overall. Palea 0.75 length of lemma, 2 -veined. Apical sterile florets 1(–2) in number, linear, 3–5 mm long. Apical sterile lemmas acute, awned, 1 -awned. Apical sterile lemma awns 9–12 mm long.

Flower and Fruit. Anthers 3, 1 mm long. Caryopsis flattened, concavo-convex.

Distribution (TDWG). Continent. Europe and Australasia.

Region. Northern Europe.

Country /Province /State. : GB Aliens (Ryves et al). **Australia.** Western Australia, Northern Territory, South Australia, Queensland, New South Wales, Victoria.

NW & Lake Eyre, Southern. North, Central, South East, Inland. Coast, Tablelands, Western Slopes, Western Plains.

Enteropogon barbatus C. E. Hubbard. *Kew Bull.* 1941:196 (1941).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Somalia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Somaliland: Boundary Pillar 93, 900 m., 6 Oct 1932, *Gillett 4196* (HT: K).

Illustrations (Books): S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (173, Fig 71).

Derivation (Clifford & Bostock 2007): L. bearded, barbed. With hairs on the callus, glumes or lemma.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 40–80 cm long. Lateral branches lacking. Leaf-sheaths keeled, glabrous on surface, outer margin hairy. Ligule a ciliate membrane. Leaf-blades flat or involute, 6–30 cm long, 1–3 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, unilateral, 7–18 cm long. Rhachis angular. Spikelet packing broadside to rhachis, regular, 2 -rowed. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, dorsally compressed, 6–7 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus evident, bearded, obtuse. Floret callus hairs 0.5 length of lemma.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 3–3.5 mm long, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 5–6.5 mm long, 0.8 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume apex dentate, 2 -fid, awned, 1 -awned, awn 0.5–3 mm long.

Florets. Fertile lemma elliptic, dorsally compressed, 6–7 mm long, coriaceous, keeled, 3 -veined, 0–3 -veined. Lemma surface scaberulous. Lemma apex dentate, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, 4–5 mm long overall. Palea 2 -veined. Apical sterile florets 1(–2) in number, separate, lanceolate. Apical sterile lemmas awned, 1 -awned.

Flower and Fruit. Caryopsis with free soft pericarp, ellipsoid, flattened, concavo-convex.

Distribution (TDWG). Continent. Africa.

Country /Province /State. **Northeast tropical Africa, East tropical Africa.** Ethiopia (inc. Eritrea), Somalia. Kenya.

Enteropogon brandegei (Vasey) W.D. Clayton. *Kew Bull.*, 37(3): 419 (1982).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

Basionym or Replaced Name: *Diplachne brandegei* Vasey, *Proc. Calif. Acad. Sci.*, ser. 2, 2: 213 (1889)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: IT: *T.S. Brandegei 11*, 18 Jan 1889, Mexico: Baja California Sur: Magdalena Island (US-78812).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Townsend Stith Brandege (1843–1925) United States civil engineer and botanist.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths woolly. Culms 50–100 cm long. Ligule a ciliate membrane. Leaf-blades 15–30 cm long, 2–7 mm wide. Leaf-blade surface scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 10–20, borne along a central axis, unilateral, 5–10 cm long. Central inflorescence axis 6–11 cm long. Rhachis angular. Spikelet packing broadside to rhachis, lax, regular. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 4.7–5.5 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus bearded, obtuse.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 1.5–1.8 mm long, 0.5 length of upper glume, hyaline, without keels, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 3.3–4 mm long, 0.75 length of adjacent fertile lemma, hyaline, without keels, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma elliptic, dorsally compressed, 4.7–5.5 mm long, coriaceous, keeled, 3 -veined, 0–3 -veined. Lemma surface scabrous, glabrous to pilose. Lemma apex acute, awned, 1 -awned. Principal lemma awn 1–4.5 mm long overall. Palea 2 -veined. Apical sterile florets 1 in number, elliptic, 1.5 mm long. Apical sterile lemmas glabrous or pilose, acute, awned, 1 -awned. Apical sterile lemma awns 0.7–1.9 mm long.

Flower and Fruit. Caryopsis ellipsoid, flattened, concavo-convex, 2.5–3 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. Mexico. Northwest Mexico.

TDWG4. Baja California Sur.

Enteropogon chlorideus (Presl) W.D. Clayton. *Kew Bull.*, 37(3): 419 (1982).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

Basionym or Replaced Name: *Dinebra chloridea* J. Presl, *Reliq. Haenk.* 1(4–5): 291 (1830)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Haenke s.n.*, Mexico (PR; IT: MO).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (223& 226), F.W.Gould, *The Grasses of Texas* (1975) (331, Fig. 175 as *Chloris chloridea*).

Derivation (Clifford & Bostock 2007): L. *-ea*, indicating resemblance. The inflorescence resembles that of *Chloris*.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 50–100 cm long. Leaf-sheaths glabrous on surface or pilose, outer margin glabrous. Ligule a ciliolate membrane. Leaf-blades flat, 15–30 cm long, 5–10 mm wide. Leaf-blade surface scabrous, glabrous or pilose.

Inflorescence. Inflorescence composed of racemes. Racemes 3–15, digitate, in several whorls, unilateral, 6–10 cm long. Rhachis angular. Spikelet packing broadside to rhachis, lax, regular, 2 -rowed. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, dorsally compressed, 4.5–7.5 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus evident, pubescent, obtuse.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 1–2 mm long, 0.5 length of upper glume, membranous, without keels, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 2–3.5 mm long, 0.5 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent.

Florets. Fertile lemma lanceolate, dorsally compressed, 4.5–7.5 mm long, coriaceous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins excurrent. Lemma margins ciliolate. Lemma apex dentate, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, 6.5–15 mm long overall. Palea 2 -veined. Apical sterile florets 1 in number, linear, 1.4–3 mm long. Apical sterile lemmas glabrous or pubescent, acute, awned, 1 -awned. Apical sterile lemma awns 2–8 mm long.

Flower and Fruit. Caryopsis with free soft pericarp, ellipsoid, flattened, concavo-convex, 4.5 mm long.

Cleistogenes present, underground.

$2n = 80$ (1 ref *Grasses of Texas*).

Distribution (TDWG). Continent. North America.

Country /Province /State. Mexico. Central Mexico, Northeast Mexico, Gulf (Mexico), Northwest Mexico, Southwest Mexico, Southeast Mexico.

TDWG4. Distrito Federal, Mexico State, Morelos. Guanajuato, Nuevo Leon, San Luis Potosi, Tamaulipas, Zacatecas. Veracruz. Baja California Sur, Sinaloa, Sonora. Jalisco, Michoacan, Nayarit, Oaxaca. Chiapas.

Enteropogon coimbatorensis K.K.N. Nair, S.K. Jain & M.P.Nayar. *Proc. Indian Acad. Sci.*, B, 86(2): 84 (1977).

Regarded by K as a synonym (*E. monostachyos*).

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: India, Tamil Nadu, Kuridimalai: Subramanyam 1828 (MH holo).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent, Indo-China. India, Sri Lanka. Myanmar.

TDWG4. Tamilnadu.

Enteropogon dolichostachyus (Lagas.) Keng. *Clav.Gram. Prim. Sin.* 197 (1957).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*), N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960) (as *Chloris*), W.D.Clayton & N.Snow, Key to Pacific Grasses (2010).

Basionym or Replaced Name: *Chloris dolichostachya* Lag., *Gen. Sp. Pl.* 5 (1816). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Philippine Islands: de Jambuangan, *Ludovicus Nie s.n.* (HT: MA).

Illustrations (Books): C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (378), C-C Hsu, *Taiwan Grasses* (1975) (469, Pl. 1368 as *E. dolichostachyus*), K.M.Matthew, Illustrations on the *Flora of Tamilnadu Carnatic* (1982) (Pl. 825 & 826 as *Chloris dolichostachya*), H.J.Noltie, *The Grasses of Bhutan* (2000) (as *Chloris dolichostachya*), J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (1178, Fig. 333), J.C.Tothill, & J.B.Hacker. *The grasses of southern Queensland* (1983) (156(13)), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (290 & 293, Fig 48 & 49), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (223), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 694).

Illustrations (Journals): *Austr. J. Bot.* (Supp.5, 26: Fig.7; 32, Fig.13 (1972)).

Derivation (Clifford & Bostock 2007): Gk. dolichos, narrow; stachys, ear of corn. Spikelets terete.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms geniculately ascending, 60–100 cm long. Leaf-sheaths outer margin hairy. Ligule a fringe of hairs. Leaf-blades flat or involute, 12–30 cm long, 8 mm wide, glaucous. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 4–10, digitate, drooping, unilateral, 10–20 cm long. Rhachis angular. Spikelet packing broadside to rhachis, regular, 2 -rowed. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, dorsally compressed, 4.5–5 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus evident, pilose, obtuse.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 1.7 mm long, 0.4 length of upper glume, membranous, without keels, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 4.5 mm long, 0.8 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume mucronate.

Florets. Fertile lemma elliptic, dorsally compressed, 4.5–5 mm long, coriaceous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins excurrent. Lemma surface scaberulous, rough on veins. Lemma apex awned, 1 -awned. Principal lemma awn 8 mm long overall. Palea 2 -veined. Palea keels scaberulous. Apical sterile florets 1 in number, lanceolate, 1 mm long. Apical sterile lemmas awned, 1 -awned.

Flower and Fruit. Anthers 3, 1.4 mm long. Caryopsis with free soft pericarp, ellipsoid, flattened, concavo-convex.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia, Australasia.

Country /Province /State. Western Asia, Arabian Peninsula, China, Eastern Asia. Afghanistan. Oman. China South Central, Hainan. Ogosawara-shoto, Taiwan. Indian Subcontinent, Indo-China, Malesia, Papuasias. Assam, Eastern Himalaya, India, Nepal, Pakistan, Sri Lanka. Andaman Is, Laos, Myanmar, Thailand, Vietnam. Java, Lesser Sunda Is, Malaya, Moluccas, Philippines. New Guinea. Australia. Western Australia, Northern Territory, Queensland. Caroline Is.

TDWG4. Yunnan. Bhutan. Kimberley. Darwin & Gulf. North, Central.

Enteropogon longiaristatus (Napper) W.D. Clayton. *Kew Bull.*, 37(3): 419 (1982).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Tanzania. **Basionym or Replaced Name:** *Chloris longiaristata* Napper, *Kirkia*, 3: 117 (1963). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Tanzania, Ngudu: Staples 382 (EA holo, K).

Illustrations (Books): R.M.Phill, F.T.E.A., *Gramineae* (2(1974):338, Fig 96 as *Chloris*).

Derivation (Clifford & Bostock 2007): *L. longus*, long; arista, bristle. Lemmas or glumes long awned.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial. Culms geniculately ascending, 30–70 cm long, without nodal roots or rooting from lower nodes. Ligule a ciliolate membrane. Leaf-blades conduplicate, 3–7(–13) cm long, 2–3 mm wide. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 2–5, paired or digitate, ascending or erect, unilateral, 4–9 cm long. Rhachis angular. Spikelet packing broadside to rhachis, regular, 2 -rowed. Spikelets ascending, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, dorsally compressed, 6.5–8 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus evident, pilose, pungent.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma, gaping. Lower glume lanceolate, (3.5–)4–6 mm long, 0.6–0.8 length of upper glume, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex setaceously acuminate. Upper glume lanceolate, 6.5–8 mm long, 1.1 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume apex setaceously acuminate.

Florets. Fertile lemma lanceolate, dorsally compressed, (5–)6–7 mm long, cartilaginous, pallid, keeled, 3 -veined, 0–3 -veined. Lemma surface scaberulous, rough above. Lemma margins eciliate. Lemma apex dentate, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, (25–)30–40 mm long overall. Palea 2 -veined. Apical sterile florets 2–3 in number, barren, in a clump, lanceolate, 2–2.7 mm long. Apical sterile lemmas dentate, 2 -fid, awned, 1 -awned. Apical sterile lemma awns 20–35 mm long.

Flower and Fruit. Caryopsis with free soft pericarp, ellipsoid, flattened, concavo-convex, 3 mm long.

Distribution (TDWG), Continent. Africa.

Country /Province /State. East tropical Africa. Tanzania.

Enteropogon macrostachyus (A.Rich.) Munro ex Benth. *Journ. Linn. Soc.* 19: 101 (1881).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ethiopia. **Basionym or Replaced Name:** *Chloris macrostachya* Hochst. ex A. Rich., *Tent. Fl. Abyss.* 2: 408 (1850)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: T: *G.H.W. Schimper 1477*, no date, Ethiopia ((fragm., US-80839)).

Illustrations (Books): H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962) (209, Fig. 133), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (136, Fig. 82), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (173, Fig. 71).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): *Gk. makros*, large; *stachys*, ear of corn. Inflorescence large.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–100 cm long, wiry. Leaf-sheaths without keel, glabrous on surface, outer margin glabrous. Ligule a ciliolate membrane, pubescent on abaxial surface. Leaf-blades flat or involute, 10–60 cm long, 1.5–10 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, unilateral, 8–20 cm long. Rhachis angular. Spikelet packing broadside to rhachis, regular, 2 -rowed. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, dorsally compressed, 7–10 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus evident, pilose, obtuse. Floret callus hairs 0.1–0.2 length of lemma.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 3–3.5 mm long, 0.5 length of upper glume, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 5.5–7.5 mm long, 0.8 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume apex dentate, 2 -fid, awned, 1 -awned, awn 0.5–3 mm long.

Florets. Fertile lemma elliptic, dorsally compressed, 7–10 mm long, coriaceous, keeled, 3 -veined, 0–3 -veined. Lemma surface scaberulous. Lemma apex dentate, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, 10–18 mm long overall. Palea 2 -veined. Palea keels thickened. Palea surface scabrous. Apical sterile florets 2 in number, separate, lanceolate. Apical sterile lemmas awned, 1 -awned. Apical sterile lemma awns 2 per spikelet in number.

Flower and Fruit. Caryopsis with free soft pericarp, ellipsoid, flattened, concavo-convex. Embryo 0.4 length of caryopsis.

Distribution (TDWG). Continent. Africa, Temperate Asia.

Country /Province /State. West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa. Ghana. DRC. Eritrea, Ethiopia (inc. Eritrea), Somalia, Sudan. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga. **Arabian Peninsula.** Saudi Arabia, Yemen.

Enteropogon minutus Lazarides. *Austral. J. Bot., Suppl.* 5: 28 (1972).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia, Queensland. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Queensland: Burke Dist: 4 mi E of Normanton, 6 Mar 1954, *Lazarides* 4288 (HT: CANB; IT: BRI, K, MEL, NSW, NT, PERTH, US).

Illustrations (Books): J.C.Tothill, & J.B.Hacker. *The grasses of southern Queensland* (1983) (156(14)), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (290 293, Fig 48 & 49), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. J. Bot. (Suppl.* 5, 26: Fig.7; 32, Fig.13 (1972)), *Ruizia* (13:284, Fig 34d-f (1993)).

Derivation (Clifford & Bostock 2007): L. very small. Smaller than usual in some respect.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 60–90 cm long, 5–8 -noded. Leaf-sheath oral hairs bearded. Ligule a ciliolate membrane, 0.5 mm long. Collar with external ligule. Leaf-blades 6–15 cm long, 2–3.5 mm wide. Leaf-blade surface scaberulous or scabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 3–5, digitate, erect or ascending, flexuous, unilateral, 7–12 cm long. Rhachis angular, scabrous on surface. Spikelet packing broadside to rhachis, regular. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 3–3.5 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus evident, 0.5 mm long, pubescent, acute.

Glumes. Glumes persistent, similar, reaching apex of florets, thinner than fertile lemma, gaping. Lower glume lanceolate, 2–5 mm long, 0.5 length of upper glume, hyaline, without keels, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex setaceously acuminate. Upper glume lanceolate, 3–3.5 mm long, 1 length of adjacent fertile lemma, hyaline, without keels, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex setaceously acuminate.

Florets. Fertile lemma elliptic or oblong, dorsally compressed, 3–3.5 mm long, cartilaginous, keeled, 3 -veined, 0–3 -veined. Lemma surface scaberulous. Lemma apex dentate, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, flexuous, 8–14 mm long overall. Palea 2 -veined. Rhachilla extension 1.5–2 mm long. Apical sterile florets 1 in number, linear, 1 mm long. Apical sterile lemmas dentate, 2 -fid, acute, awned, 1 -awned. Apical sterile lemma awns 5–10 mm long.

Flower and Fruit. Caryopsis flattened, concavo-convex, 1.8–2.3 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory, Queensland.

Kimberley. Darwin & Gulf. North, Central.

Enteropogon mollis (Nees) W.D. Clayton. *Kew Bull.*, 37(3): 419 (1982).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. **Basionym or Replaced Name:** *Gymnopogon mollis* Nees, *Fl. Bras. Enum. Pl.* 2(1): 427 (1829)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Martius*, Brazil: Pernambuco (M?).

ST: *K.F.P. von Martius s.n.*, Brazil: Piaui: Martins Iter Poros (M?; IST: US-3386738 (fragm.)).

ST: *Martius s.n.*, Brazil: Bahia (M?).

Recent Synonyms: *Chloris mollis* (Nees) Swallen, *N. Am. Fl.* 17: 596 (1939).

Illustrations (Books): S.A.Renvoize, *The Grasses of Bahia*, 1984 (86, Fig. 31), J.A.Steyermark et al, *Flora of the Venezuelan Guayana* Vol. 8 (2004) (96, Fig. 64), G.Harling & C.Persson, *Flora of Ecuador* (2006) (68: 104, Fig. 15 (2001)).

Derivation (Clifford & Bostock 2007): L. soft. Softly hairy usually of leaf-blades.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Annual. Basal innovations flabellate. Culms 40–60 cm long. Leaf-sheaths pilose. Ligule a fringe of hairs. Leaf-blades 10–30 cm long, 2–10 mm wide. Leaf-blade surface pilose, hairy on both sides.

Inflorescence. Inflorescence composed of racemes. Racemes 3–7, digitate, radiating, unilateral, 6–9 cm long. Rhachis angular. Spikelet packing broadside to rhachis, regular. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets cuneate, laterally compressed, 2.5–6.8 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus bearded, obtuse.

Glumes. Glumes persistent, similar, reaching apex of florets, thinner than fertile lemma, gaping. Lower glume lanceolate, 3–4 mm long, 0.9–1 length of upper glume, hyaline, without keels, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 3–4.6 mm long, 0.7–1.2 length of adjacent fertile lemma, hyaline, without keels, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, dorsally compressed, 2.5–6.8 mm long, coriaceous, keeled, 3 -veined, 0–3 -veined. Lemma margins ciliate, hairy above. Lemma apex acute, awned, 1 -awned. Principal lemma awn subapical, 4–7.5 mm long overall. Palea 2 -veined. Rhachilla extension pubescent, hairy at tip. Apical sterile florets 1(–2) in number, linear (when present the upper reduced to rhachilla), 1.2–1.6 mm long. Apical sterile lemmas pilose, adorned on margins, acute, awned, 1 -awned. Apical sterile lemma awns 3.7–5.8 mm long.

Flower and Fruit. Caryopsis linear, flattened, concavo-convex, 3.3 mm long.

Cleistogenes absent or present.

Distribution (TDWG). Continent. South America.

Country /Province /State. Mesoamerica, Caribbean, Northern South America, Western South America, Brazil. Guatemala, Honduras, Nicaragua. Aruba, Cuba, Dominican Republic, Haiti, Jamaica, Venezuelan and Netherlands Antilles. Venezuela. Colombia, Ecuador, Galapagos, Peru. Brazil Northeast.

TDWG4. Goias, Bahia, Maranhao, Piaui, Ceara, Rio Grande do Norte, Paraiba, Penambuco, Alagoas, Sergipe, Minas Gerais, Rio de Janeiro, Espirito Santo.

Enteropogon monostachyos (Vahl) Schum. *Abh. Preuss. Akad. Wiss.* 17 (1894).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from India. **Basionym or Replaced Name:** *Cynosurus monostachyos* Vahl, *Symb. Bot.* 2: 20 (1791). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: India: Koenig (C holo).

Recent Synonyms: *Enteropogon melicoides* (Koen. ex Willd.) Nees, *Lindl. Introd. Nat. Syst. ed.* 2: 449 (1886).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (193, Fig 168 as *E. simplex*), K.M.Mathew, *Illustrations on the Flora of Tamilnadu Carnatic* (1982) (Pl. 861 & 862), R.Pilger, *Die Natürlichen Pflanzenfamilien* 14d (1956) (97, Fig. 26 as *melicoides*).

Derivation (Clifford & Bostock 2007): L. soft. Softly hairy usually of leaf-blades.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 50–100 cm long. Lateral branches lacking. Leaf-sheaths keeled, glabrous on surface, outer margin hairy. Ligule a ciliolate membrane. Leaf-blades flat or involute, 15–30 cm long, 2–6 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, unilateral, 8–15 cm long. Rhachis angular. Spikelet packing broadside to rhachis, regular, 2 -rowed. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, dorsally compressed, 6–8 mm long, breaking up at maturity,

disarticulating below each fertile floret. Floret callus evident, pilose, obtuse. Floret callus hairs 0.1–0.2 length of lemma.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 3–3.5 mm long, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 5.5–7.5 mm long, 0.8 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume apex dentate, 2 -fid, awned, 1 -awned, awn 0.5–3 mm long.

Florets. Fertile lemma elliptic, dorsally compressed, 6–8 mm long, coriaceous, keeled, 3 -veined, 0–3 -veined. Lemma surface scaberulous. Lemma apex dentate, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, 2.5–8 mm long overall. Palea 2 -veined. Palea keels thickened. Palea surface granular. Apical sterile florets 1–2 in number, separate, lanceolate. Apical sterile lemmas awned, 1 -awned.

Flower and Fruit. Caryopsis with free soft pericarp, ellipsoid, flattened, concavo-convex.

Distribution (TDWG). Continent. Africa, Tropical Asia.

Country /Province /State. Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean. Somalia. Tanzania. Mozambique, Zambia. Limpopo, Mpumalanga, Swaziland, Kwazulu-Natal. Madagascar. **Indian Subcontinent, Indo-China.** India, Sri Lanka. Myanmar.

TDWG4. Maharashtra, Tamilnadu.

Enteropogon paucispiceus (Lazarides) B.K. Simon. *Austrobaileya* 2(1): 1 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia, Queensland. **Basionym or Replaced Name:** *Enteropogon unispiceus* var. *paucispiceus* Lazarides, *Austral. J. Bot., Suppl. Ser 5: 27*, f. 10 (1972). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Queensland: Moreton Dist: Glenore Grove, near Lawes, 16 Feb 1950, Bisset S671 (HT: CANB-22154).

Illustrations (Books): No illustration found (BKS).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. paucus*, few; *spica*, thorn. -eus, resembling. Inflorescence with few branches.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 45–60 cm long, 2–4 -noded. Culm-internodes mid-green or glaucous. Lateral branches lacking or sparse. Leaf-sheaths outer margin hairy. Ligule a fringe of hairs. Leaf-blades filiform, involute, 3–10 cm long, 0.5–1 mm wide. Leaf-blade surface scabrous, rough adaxially. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 3–4, digitate, unilateral, 6–8.5 cm long. Rhachis angular. Spikelet packing broadside to rachis, lax, regular. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 4–5 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus glabrous, obtuse.

Glumes. Glumes persistent, similar, shorter than spikelet or reaching apex of florets, thinner than fertile lemma, gaping. Lower glume lanceolate, 2–3 mm long, 0.5–0.75 length of upper glume, membranous, without keels, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 4.3–4.8 mm long, 0.75–0.8 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma elliptic, dorsally compressed, 6–7 mm long, coriaceous, keeled, 3 -veined, 0–3 -veined. Lemma surface smooth or scaberulous, rough above. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 8–11.5 mm long overall. Palea 2 -veined. Apical sterile florets 1(–2) in number, linear or lanceolate. Apical sterile lemmas acute, awned, 1 -awned. Apical sterile lemma awns 3–4 mm long.

Flower and Fruit. Caryopsis flattened, concavo-convex, 2–5 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland.

Central, South East, Inland.

Enteropogon prieurii (Kunth) W.D. Clayton. *Kew Bull.*, 37(3): 419 (1982).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *Chloris*).

TYPE from Senegal. **Basionym or Replaced Name:** *Chloris prieurii* Kunth, *Revis. Gramin.* 2: 441, t. 134 (1831)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Leprieur s.n.*, Senegal: Ile St. Louis (P; IT: K).

Illustrations (Books): L.Boulos, *Flora of Egypt* 4 (2005) (278, Pl. 82), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (223).

Derivation (Clifford & Bostock 2007): dedicated to F.R. Leprieur (1799–1869) French naval officer and amateur botanist.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, 40–85 cm long. Ligule a ciliolate membrane or a ciliate membrane. Leaf-blades 10–30 cm long, 2–5 mm wide. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 4–9, digitate, unilateral, 4–12 cm long. Rhachis angular. Spikelet packing broadside to rhachis, regular, 2 -rowed. Spikelets ascending, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, dorsally compressed, 3–5 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus evident, pilose, pungent.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 1.2–1.5 mm long, 0.3–0.5 length of upper glume, membranous, without keels, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 2.2–4.5 mm long, 0.7–0.9 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent.

Florets. Fertile lemma elliptic, dorsally compressed, 3–5 mm long, cartilaginous, pallid or dark brown, glandular on surface (beside keel), keeled, 3 -veined, 0–3 -veined. Lemma margins ciliate. Lemma apex dentate, 2 -fid, awned, 1 -awned. Principal lemma awn 7–25 mm long overall. Palea 2 -veined. Palea keels tuberculate. Apical sterile florets 4–5 in number, barren, in a clump, oblong, 1.5–2.5 mm long. Apical sterile lemmas awned, 1 -awned. Apical sterile lemma awns 1.5–17 mm long.

Flower and Fruit. Caryopsis with free soft pericarp, ellipsoid, flattened, concavo-convex, 2–2.5 mm long.

Distribution (TDWG). Continent. Africa, Temperate Asia, Tropical Asia, North America.

Country /Province /State. Northern Africa, Macaronesia, West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, Southern Africa. Egypt. Azores, Canary Is, Cape Verde, Madeira, Selvagens. Burkina, Ghana, Mali, Nigeria, Senegal. Eritrea, Sudan. Tanzania. Namibia. Arabian Peninsula. Saudi Arabia. Indian Subcontinent. India. Southeastern USA. Alabama.

TDWG4. Gujarat. Rajasthan.

Enteropogon ramosus B.K. Simon. *Austrobaileya* 2(1): 1 (1984).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia, Queensland. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Queensland: Mitchell Distr.: 1 km S of Tambo towards Augathella, May 1975, Simon & Clarkson 2810 (HT: BRI-228353; IT: CANB, K, L, NSW).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (359, Fig. 289), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (243), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (164, Fig. 25), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): L. ramus, branch; -osa, abundance. Inflorescences or culms much branched.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 50–100 cm long, 4–6 -noded. Culm-internodes glaucous, smooth, distally glabrous. Lateral branches ample. Leaves cauline. Leaf-sheaths 8–13 cm long, without keel, smooth or papillose, glabrous on surface. Ligule a ciliolate membrane, 0.3 mm long. Leaf-

blade base broadly rounded. Leaf-blades tortuous, 10–20 cm long, 2–5 mm wide, glaucous. Leaf-blade margins scabrous. Leaf-blade apex attenuate, filiform.

Inflorescence. Inflorescence composed of racemes. Racemes 2–6, digitate, unilateral, 7–15 cm long. Rhachis angular. Spikelet packing broadside to rhachis, regular. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 6–9 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus evident, 0.5–2 mm long, pilose, obtuse. Floret callus hairs 1–1.5 mm long.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume linear, 2–3.5 mm long, 0.33–0.5 length of upper glume, membranous, without keels, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acuminate, mucronate. Upper glume linear, 5.5–7 mm long, 0.75–0.9 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acuminate, mucronate.

Florets. Fertile lemma lanceolate, dorsally compressed, 6–9 mm long, coriaceous, pallid or purple, keeled, 3 -veined, 0–3 -veined. Lemma surface granulose. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 10–14 mm long overall. Palea 5–6 mm long, 2 -veined. Apical sterile florets 1(–2) in number, linear. Apical sterile lemmas acute, awned, 1 -awned.

Flower and Fruit. Anthers 3, 1.2–1.5 mm long. Caryopsis flattened, concavo-convex, 2–5 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, South Australia, Queensland, New South Wales.

Kimberley, Eremean, South-West. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre, Southern. North, Central, South East, Inland. Western Slopes, Western Plains.

Enteropogon rupestris (J. A. Schmidt) A. Cheval. *Rev. Bot. Appliq.* 15: 1048 (1935).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Cape Verde Is. **Basionym or Replaced Name:** *Ctenium rupestre* J.A. Schmidt, *Beitr. Fl. Cap Verd. Ins.* 149 (1852)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: Mar 1851, Cape Verde Islands: in rupestribus ins. S. Antonii, pr. Ribairam grandem (HBG (destroyed)).

Illustrations (Books): S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (173, Fig 71).

Derivation (Clifford & Bostock 2007): L. rupe, rock; -estre, place of growth; Growing amongst rocks.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Cataphylls evident. Culms 30–90 cm long, wiry. Lateral branches ample. Leaves cauline. Leaf-sheaths without keel, glabrous on surface, outer margin glabrous. Ligule a ciliolate membrane. Leaf-blades flat, 5–25 cm long, 1–3 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, unilateral, 6–17 cm long. Rhachis angular. Spikelet packing broadside to rhachis, regular, 2 -rowed. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, dorsally compressed, 4.5–8 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus evident, pilose, obtuse. Floret callus hairs 0.1–0.2 length of lemma.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 3–3.5 mm long, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 4–7 mm long, 0.8 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume apex dentate, 2 -fid, awned, 1 -awned, awn 0.5–3 mm long.

Florets. Fertile lemma elliptic, dorsally compressed, 4.5–8 mm long, coriaceous, keeled, 3 -veined, 0–3 -veined. Lemma surface scaberulous. Lemma apex dentate, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, 1–5 mm long overall. Palea 2 -veined. Palea surface granular. Apical sterile florets 1(–2) in number, separate, lanceolate. Apical sterile lemmas awned, 1 -awned.

Flower and Fruit. Caryopsis with free soft pericarp, ellipsoid, flattened, concavo-convex.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Macaronesia, West tropical Africa, Northeast tropical Africa, East tropical Africa, Southern Africa. Canary Is, Cape Verde. Mauritania, Niger. Ethiopia (inc. Eritrea), Somalia, Sudan. Kenya. Namibia, Botswana.

Enteropogon sechellensis (Baker) Th. Dur. & Schinz. *Consp. Fl. Afr.* 5: 859 (1895).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Seychelles. **Basionym or Replaced Name:** *Ctenium sechellense* Baker, *Fl. Maurit.* 452 (1877). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Seychelles: Horne 632 (K holo).

Illustrations (Books): R.M.Phill, F.T.E.A., *Gramineae* (2(1974):334, Fig. 94), G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):217 t. 63), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (95, Fig. 26), T.A.Cope, in M.Thulin, *Poaceae* (Gramineae). *Flora of Somalia* (1995) (208, Fig. 114).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From the Seychelles.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 50–100 cm long, wiry. Leaf-sheaths keeled, hirsute, outer margin hairy. Ligule a ciliolate membrane. Leaf-blades filiform or linear, flat or involute, 8–28 cm long, 2–4 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, unilateral, 6–15 cm long. Rhachis angular. Spikelet packing broadside to rhachis, regular, 2 -rowed. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, dorsally compressed, 5–8 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus evident, pilose, obtuse. Floret callus hairs 0.1–0.2 length of lemma.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 3–3.5 mm long, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 4.5–7 mm long, 0.8 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume apex dentate, 2 -fid, awned, 1 -awned, awn 0.5–3 mm long.

Florets. Fertile lemma elliptic, dorsally compressed, 5–8 mm long, coriaceous, keeled, 3 -veined, 0–3 -veined. Lemma surface scaberulous. Lemma apex dentate, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, 10–20 mm long overall. Palea 2 -veined. Palea keels scaberulous. Palea surface granular. Apical sterile florets 2 in number, separate, lanceolate. Apical sterile lemmas awned, 1 -awned.

Flower and Fruit. Caryopsis with free soft pericarp, ellipsoid, flattened, concavo-convex.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa, East tropical Africa, South tropical Africa, Western Indian ocean. Somalia. Kenya, Tanzania. Mozambique, Zambia. Aldabra, Madagascar, Seychelles.

Enteropogon unispiceus (F. Muell.) W. D. Clayton. *Kew Bull.* 21: 108 (1967).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Australia, Queensland. **Basionym or Replaced Name:** *Chloris unispicea* F. Muell., *Fragm.* 7: 118 (1870). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Queensland: Port Curtis Distr., Herbert's Creek, Rockhampton, *Bowman s.n.* (HT: MEL; IT: E, K, L, BR).

Illustrations (Books): C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (380), C-C Hsu, *Taiwan Grasses* (1975) (as *E. gracilior*), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (243), J.C.Tothill, & J.B.Hacker. *The grasses of southern Queensland* (1983) (156(15)), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (293, Fig 49), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. J. Bot.* (Supp.5, 26: Fig.7 (1972)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.Domin, *Bibliotheca Botanica* 85 (1915) (37, Fig.84 as *Chloris*).

Derivation (Clifford & Bostock 2007): L. unus, one; spica, thorn. Inflorescence a single spike.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 20–50 cm long. Leaf-sheaths outer margin hairy. Ligule a fringe of hairs. Leaf-blades filiform, involute, 3–10 cm long, 0.5–1 mm wide. Leaf-blade surface scabrous, rough adaxially. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 1–4, single or paired or digitate, unilateral, 2–8 cm long. Rhachis angular. Spikelet packing broadside to rhachis, lax, regular. Spikelets appressed, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 4–5 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus glabrous, obtuse.

Glumes. Glumes persistent, similar, shorter than spikelet or reaching apex of florets, thinner than fertile lemma, gaping. Lower glume lanceolate, 2–3 mm long, 0.5–0.75 length of upper glume, membranous, without keels, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 3.5–4 mm long, 0.75–0.8 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma elliptic, dorsally compressed, 4–5 mm long, coriaceous, keeled, 3 -veined, 0–3 -veined. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 6–10 mm long overall. Palea 2 -veined. Apical sterile florets 1(–2) in number, linear or lanceolate, 1.5–3 mm long. Apical sterile lemmas acute, awned, 1 -awned. Apical sterile lemma awns 3–4 mm long.

Flower and Fruit. Caryopsis flattened, concavo-convex.

Distribution (TDWG). Continent. Temperate Asia, Australasia, Pacific.

Country /Province /State. China, Eastern Asia. Taiwan. Australia. Queensland. Southwestern Pacific. Cook Is.

North, Central, South East.

Entolasia imbricata Stapf. Prain, *Fl. Trop. Afr.* 9: 739 (1920).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mozambique. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Mozambique Distr.: German East Africa: Unyamwezi, *Speke & Grant s.n.*.

Illustrations (Books): R.M.Polhill, F.T.E.A., *Gramineae* (3(1982):574, Fig.137), G.V.Pope et al., *Flora Zambesiaca* 10, G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (138, Fig 83).

Derivation (Clifford & Bostock 2007): *L. imbricare*, overlap like roof-tiles. The shorter branches bear densely overlapping spikelets.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MICROCALAMINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Butt sheaths pilose. Culms erect, 60–150 cm long. Ligule a fringe of hairs. Leaf-blades linear, 7–50 cm long, 2–10 mm wide. Leaf-blade margins cartilaginous.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, erect, unilateral, 2–7 cm long, simple (or the lower branched). Central inflorescence axis 10–45 cm long. Rhachis angular, scaberulous on margins. Spikelet packing adaxial, regular, 2 -rowed. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, linear, flattened.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 4.5–6.5 mm long, falling entire.

Glumes. Glumes dissimilar, exceeding apex of florets, thinner than fertile lemma. Lower glume oblate, 0.3–0.7 mm long, 0.1 length of spikelet, hyaline, without keels, 0 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume elliptic, 4.5–6.5 mm long, membranous, yellow to mid-green, without keels, 5 -veined. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, membranous, 5 -veined, acute. Fertile lemma oblong, dorsally compressed, 4 mm long, coriaceous, pallid, without keel, 5 -veined, more than 3-veined. Lemma lateral veins obscure. Lemma surface pubescent, hairy all along. Lemma margins involute. Lemma apex obtuse. Palea involute, coriaceous, 2 -veined. Palea surface pubescent.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, East tropical Africa, South tropical Africa, Southern Africa. DRC. Kenya, Tanzania, Uganda. Angola, Malawi, Zambia. Namibia, Botswana.

Entolasia marginata (R.Br.) D. K. Hughes. *Kew Bull.* 1923, 331 (1923).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000), J.F.Veldkamp, *Poaceae* ms (*Flora Malesiana*).

TYPE from Australia. **Basionym or Replaced Name:** *Panicum marginatum* R. Br., *Prodr* 190 (1810). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: "Apud Portum Jackson, inclusis ripis aestuarii Hunter's River vel Coal River.", *Robert Brown or Banks*, 1802–1805.

Illustrations (Books): N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (592, Fig 120), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler, *Grasses of New South Wales*, 4th edn (2008) (244).

Images: K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): L. margo, border; -ata, possessing. Leaf-blades or lemma with hairs in their margins or the margins otherwise conspicuous.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MICROCALAMINAE.

Habit, Vegetative Morphology. Perennial. Rhizomes short. Butt sheaths pilose. Culms geniculately ascending or decumbent or rambling, 20–60(–200) cm long, wiry, 4–10 -noded, without nodal roots or rooting from lower nodes. Culm-internodes scaberulous, distally glabrous or hirsute, with tubercle-based hairs. Culm-nodes glabrous or pubescent. Ligule a fringe of hairs. Leaf-blades linear or lanceolate, flat, 3–20 cm long, 2–15 mm wide. Leaf-blade midrib evident. Leaf-blade surface scabrous, glabrous or hirsute, sparsely hairy, with tubercle-based hairs. Leaf-blade margins cartilaginous, ciliate, hairy at base. Leaf-blade apex attenuate, simple.

Inflorescence. Inflorescence composed of racemes. Racemes 3–10, borne along a central axis, erect, unilateral, 1–12 cm long, bearing 2–12 fertile spikelets on each (secondary), simple or secondarily branched. Central inflorescence axis 4–20 cm long. Rhachis angular, scaberulous on margins. Spikelet packing adaxial, regular, 2 -rowed. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, linear, flattened.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, acute or acuminate, 2.5–3.8 mm long, falling entire.

Glumes. Glumes dissimilar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 0.5–1 mm long, 0.2–0.25 length of spikelet, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 2.5–3.8 mm long, 1 length of adjacent fertile lemma, 1 length of spikelet, herbaceous, without keels, 5 -veined. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, ovate, 2.5–3.8 mm long, 1 length of spikelet, herbaceous, 5 -veined, acute. Fertile lemma elliptic, dorsally compressed, 2–3 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma lateral veins obscure. Lemma surface pubescent, hairy all along. Lemma margins involute. Lemma apex acute. Palea involute, coriaceous, 2 -veined. Palea surface pubescent.

Distribution (TDWG). Continent. Tropical Asia, Australasia, Pacific.

Country /Province /State. **Malesia, Papuasia.** New Guinea. **Australia, New Zealand.** Queensland, New South Wales, Victoria. New Zealand North I. **North-central Pacific.** New Caledonia. Hawaii.

North, Central, South East. Coast, Tablelands.

Entolasia minutifolia B.K.Simon. *Austrobaileya* 8: 204 (2010).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Queensland. DarlingDowns District: between Miles and Drillham, 19 February 1935, *S.T.Blake 7709* (holo: BRI; iso: AD, CANB, DNA, NSW, PERTH).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MICROCALAMINAE.

Habit, Vegetative Morphology. Perennial. Culms 5–45 cm long, 2–6 -noded. Ligule a fringe of hairs. Leaf-blades linear or lanceolate, flat, 1–2.5 cm long, 1.5–3.5 mm wide, stiff.

Inflorescence. Inflorescence composed of racemes. Racemes 3–6, borne along a central axis, unilateral, 0.4–0.9 cm long, bearing 3–4 fertile spikelets on each. Central inflorescence axis 0.2–2 cm long. Rhachis angular. Spikelet packing regular, 2 -rowed. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, acute or acuminate, 2.2–2.5 mm long, 1–1.3 mm wide, falling entire.

Glumes. Glumes dissimilar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 0.4 mm long, 0.2 length of spikelet, membranous, without keels, 0 -veined. Lower glume lateral veins absent.

Lower glume apex acute. Upper glume lanceolate, 2.2–2.5 mm long, 1 length of spikelet, herbaceous, without keels, 5 -veined. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, ovate, 2.2–2.4 mm long, 1 length of spikelet, herbaceous, acute. Fertile lemma elliptic, dorsally compressed, 2.1 mm long, coriaceous, yellow or light brown, without keel. Lemma surface pubescent, hairy all along. Lemma margins involute. Lemma apex acute. Palea involute, coriaceous.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland. South East.

Entolasia olivacea Stapf. Prain, *Fl. Trop. Afr.* 9: 740 (1920).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from DRC. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Chevalier 4034*, Congo (P).

ST: *A. Chevalier 6092*, Central Africa (P). or 6492 as in Chase and Niles?????

Illustrations (Books): H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962) (248, Fig. 177).

Derivation (Clifford & Bostock 2007): *L. oliva*, olive; -acea, indicating resemblance. Spikelets or foliage olive-green.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MICROCALAMINAE.

Habit, Vegetative Morphology. Perennial. Rhizomes elongated. Butt sheaths glabrous. Culms decumbent, 50–100 cm long, rooting from lower nodes. Ligule a fringe of hairs. Leaf-blade base broadly rounded. Leaf-blades lanceolate, 4–15 cm long, 5–18 mm wide. Leaf-blade margins cartilaginous, crenate.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, unilateral, 3–7 cm long, secondarily branched (secondary racemelets 4–10 mm long). Central inflorescence axis 7–15 cm long. Rhachis angular, scaberulous on margins. Spikelet packing adaxial, irregular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, terete.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 2.2–2.5 mm long, falling entire.

Glumes. Glumes dissimilar, exceeding apex of florets, thinner than fertile lemma. Lower glume oblate, 0.2–0.4 mm long, 0.1 length of spikelet, hyaline, without keels, 0 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume elliptic, 2.2–2.5 mm long, membranous, dark green, without keels, 5 -veined. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, membranous, 5 -veined, acute. Fertile lemma oblong, dorsally compressed, 1.7 mm long, coriaceous, pallid, without keel, 5 -veined, more than 3-veined. Lemma lateral veins obscure. Lemma surface pubescent, hairy all along. Lemma margins involute. Lemma apex obtuse. Palea involute, coriaceous, 2 -veined. Palea surface pubescent.

Flower and Fruit. *N* = 9 (2 refs TROPICOS).

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, Southern Africa. Guinea. Cameroon, DRC. Chad. Tanzania, Uganda. Limpopo.

Entolasia stricta (R.Br.) D. K.Hughes. *Kew Bull.* 1923, 331 (1923).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*).

TYPE from Australia. **Basionym or Replaced Name:** *Panicum strictum* R. Br., *Prodr.* 190 (1812). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: "Apud Portum Jackson, inclusis ripis aestuarii Hunter's River vel Coal River.", *Robert Brown 1802–05, Banks?*.

Illustrations (Books): N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (592, Fig 120), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (244), J.C.Tothill, & J.B.Hacker. *The grasses of southern Queensland* (1983) (226), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (235, Fig. 37), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): *L. erect*. Inflorescence branches erect.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MICROCALAMINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Butt sheaths pilose. Culms geniculately ascending or decumbent or rambling, 20–80(–120) cm long, wiry, 4–10 -noded, without nodal roots or rooting from lower nodes. Culm-internodes scaberulous, distally glabrous or hirsute, with tubercle-based hairs. Ligule a fringe of hairs. Leaf-blades deciduous at the ligule, involute, 0.5–10 cm long, 1–7 mm wide, stiff. Leaf-blade midrib indistinct. Leaf-blade surface scaberulous, glabrous or hirsute, with tubercle-based hairs. Leaf-blade margins cartilaginous. Leaf-blade apex attenuate, hardened.

Inflorescence. Inflorescence composed of racemes. Racemes 2–9, borne along a central axis, erect, unilateral, 2–7 cm long, bearing 2–10 fertile spikelets on each (secondary), simple or secondarily branched. Central inflorescence axis 2–10 cm long. Rhachis angular, scaberulous on margins. Spikelet packing adaxial, regular, 2 -rowed. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, linear, flattened, 0.5–1.5 mm long.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, obtuse or subacute, 2.25–3.5 mm long, falling entire.

Glumes. Glumes dissimilar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 0.75–1 mm long, 0.25–0.33 length of spikelet, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute or acuminate. Upper glume elliptic, 2.25–3.5 mm long, 1 length of adjacent fertile lemma, 1 length of spikelet, herbaceous, without keels, 5 -veined. Upper glume surface smooth or asperulous, rough on veins. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 2.25–3.5 mm long, 1 length of spikelet, herbaceous, 5 -veined, smooth or scaberulous, rough on veins, acute. Fertile lemma elliptic, dorsally compressed, 2.25–3.5 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma lateral veins obscure. Lemma surface pubescent, hairy all along. Lemma margins involute. Lemma apex obtuse or acute. Palea involute, coriaceous, 2 -veined. Palea surface pubescent.

Distribution (TDWG). Continent. Tropical Asia, Australasia.

Country /Province /State. Malesia, Papuaia. New Guinea. **Australia.** Queensland, New South Wales, Victoria.

North, Central, South East. Coast, Tablelands, Western Slopes.

Entolasia whiteana C. E. Hubbard. *Hook. Ic. Pl.* 4, t. 3338 (1937).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia, Queensland. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Queensland: Bulimba: Brisbane, abundant on dry barren rocky slopes, cleared Eucalyptus forest country, Sep 1930, *Hubbard 4079*.

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (245), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (as *E. whiteana*), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Hooker's Icones Plantarum* (t.3338 (1937)).

Derivation (Clifford & Bostock 2007): L. -anum, indicating connection. In honor of Cyril Tenison White (1890–1950) Australian botanist.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MICROCALAMINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Cataphylls evident. Rhizomes short. Butt sheaths pilose. Culms erect or geniculately ascending, 20–80 cm long, wiry, 4–9 -noded. Culm-internodes distally glabrous or hirsute, with tubercle-based hairs. Ligule a fringe of hairs. Leaf-blades deciduous at the ligule, involute, 1–10 cm long, 1–5 mm wide, stiff. Leaf-blade midrib indistinct. Leaf-blade surface glabrous or hirsute, with tubercle-based hairs. Leaf-blade margins cartilaginous. Leaf-blade apex attenuate, hardened.

Inflorescence. Inflorescence composed of racemes. Racemes 2–9, borne along a central axis, erect, unilateral, 1–3 cm long, bearing 2–14 fertile spikelets on each, simple. Central inflorescence axis 2–10 cm long. Rhachis angular, scaberulous on margins. Spikelet packing adaxial, regular, 2 -rowed. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, linear, flattened, 0.6–1 mm long, pubescent.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, acute, 4–6 mm long, falling entire.

Glumes. Glumes dissimilar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 1.8–2.8 mm long, 0.4–0.5 length of spikelet, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume elliptic, 4–6 mm long, 1.1–1.3 length of adjacent fertile lemma,

1 length of spikelet, herbaceous, without keels, 5 -veined. Upper glume surface smooth or asperulous. Upper glume margins ciliolate. Upper glume apex obtuse.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 4–6 mm long, 1 length of spikelet, herbaceous, 5 -veined, smooth or scaberulous, ciliolate on margins, obtuse. Fertile lemma elliptic, dorsally compressed, 3.5–4.6 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma lateral veins obscure. Lemma surface pubescent, hairy all along. Lemma margins involute. Lemma apex obtuse. Palea involute, coriaceous, 2 -veined. Palea surface pubescent.

Flower and Fruit. Anthers 1–1.3 mm long. Caryopsis oblong, 2.5–3 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland, New South Wales. North, Central, South East. Coast.

Entoplocamia aristulata (Hack. ex Rendle) Stapf. Dyer, *Fl. Cap.* 7: 711 (1900).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. **Basionym or Replaced Name:** *Tetrachne aristulata* Hackel & Rendle ex S. Elliot, *Journ. Bot.* 29: 72 (1891). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: South Africa, Ookiep: Scully.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955), M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (138, Fig 84).

Derivation (Clifford & Bostock 2007): L. arista, bristle; -ula, diminutive; -ata, possessing. Lemma awned.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms 40–90 cm long. Ligule a fringe of hairs. Leaf-blades 5–20 cm long, 2–6 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, oblong or globose, unilateral, 1–4 cm long. Central inflorescence axis 4–20 cm long. Rhachis flattened, scabrous on surface. Spikelet packing crowded. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 3–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed strongly, 9–17 mm long, falling entire.

Glumes. Glumes dissimilar, shorter than spikelet, thinner than fertile lemma. Lower glume oblong, 0.7 length of upper glume, membranous, 1-keeled, 3 -veined. Lower glume margins ciliate. Lower glume apex acute. Upper glume oblong, 1 length of adjacent fertile lemma, membranous, 1-keeled, 5 -veined. Upper glume margins ciliate. Upper glume apex acuminate, mucronate.

Florets. Basal sterile florets 2 or more, similar, barren, without significant palea. Lemma of lower sterile floret similar to fertile lemma, elliptic, 5–6 mm long, chartaceous, 1-keeled, 5–10 -veined, ciliate on margins, acuminate, mucous. Fertile florets recurved at tip. Fertile lemma orbicular, 5–6 mm long, coriaceous, much thinner on margins, keeled, 9–13 -veined, more than 3-veined. Lemma margins pilose. Lemma apex cuspidate, awned, 1 -awned. Principal lemma awn reflexed, pungent, 1 mm long overall. Palea 2 -veined. Palea keels winged, narrowly winged, ciliolate. Palea surface pilose, hairy on flanks. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules absent. Caryopsis with free soft pericarp, ellipsoid.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa. Angola. Namibia.

Eragrostiella bifaria (Vahl) Bor, in obs. *Ind. For.* 66: 270 (1940).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (& as *E. secunda*, *E. walkeri*).

TYPE from India. **Basionym or Replaced Name:** *Poa bifaria* Vahl, *Symb. Bot.* 2: 19 (1791). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: without collector, India (C).

Illustrations (Books): R.M.Pollhill, F.T.E.A., *Gramineae* (2(1974):245, Fig.67), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (130, Fig 52), K.M.Matthew, *Illustrations on the Flora of Tamilnadu Carnatic* (1982) (Pl. 863), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (414, Fig 74 var. *bifaria*).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): *L. bis*, twice; *fascies*, bundle; *-ulus*, diminutive; *-ata*, possessing. Panicle of two condensed branches.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths herbaceous, distinctly ribbed, glabrous, persistent and investing base of culm, with fibrous dead sheaths. Culms erect, 23–56 cm long. Lateral branches lacking. Leaves mostly basal. Ligule a ciliolate membrane, 0.4–0.6 mm long. Leaf-blades filiform, convolute, 4–16 cm long, 0.6–2.1 mm wide. Leaf-blade surface pilose. Leaf-blade apex attenuate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, unilateral, 8–22 cm long. Rhachis angular. Spikelet packing broadside to rhachis, regular, 2 -rowed. Spikelets ascending, solitary. Fertile spikelets sessile. Pedicels absent.

Fertile Spikelets. Spikelets comprising 9–50 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, straight or curved, laterally compressed, 6–20 mm long, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets falling as a whole.

Glumes. Glumes lower persistent, upper deciduous, similar, shorter than spikelet. Lower glume lanceolate or ovate, 1.7–6 mm long, 0.9–1.5 length of upper glume, cartilaginous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute or acuminate. Upper glume oblong or ovate, 1.8–4 mm long, 0.9–1.5 length of adjacent fertile lemma, cartilaginous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets imbricate to tip. Fertile lemma ovate, 1.9–2.6 mm long, cartilaginous, dark green or grey, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea ovate, 0.8–0.9 length of lemma, 2 -veined. Palea keels winged, narrowly winged, ciliolate. Palea apex entire, obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ovoid, isodiametric, trigonous, 0.5–0.6 mm long. Embryo 0.3 length of caryopsis.

Distribution (TDWG). Continent. Africa, Tropical Asia, Australasia.

Country /Province /State. Northeast tropical Africa, East tropical Africa. Ethiopia (inc. Eritrea). Kenya, Tanzania. **Indian Subcontinent, Indo-China.** India, Sri Lanka. Andaman Is, Myanmar, Thailand. **Australia.** Queensland.

TDWG4. Andhra Pradesh, Karnataka, Kerala. Madhya Pradesh, Maharashtra, Tamilnadu. North.

Eragrostiella brachyphylla (Stapf) Bor. Ind. For. 66:270 (1940).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from India. **Basionym or Replaced Name:** *Eragrostis brachyphylla* Stapf, *Fl. Brit. India* 7(22): 327 (1897) [1896]

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Wight 1773b*, India (K).

ST: *Wallich 3827A*, India (CAL).

Illustrations (Books): K.M.Matthew, Further Illustrations on the *Flora of Tamilnadu Carnatic* (1988) (pl.770).

Derivation (Clifford & Bostock 2007): Gk. *brachys*, short; *phyllon*, leaf. Leaf-blades short.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths persistent and investing base of culm, with compacted dead sheaths. Culms erect, 20–35 cm long, 2 -noded. Culm-nodes glabrous. Lateral branches lacking. Leaves mostly basal, without demarcation between sheath and blade. Leaf-sheath oral hairs lacking or bearded. Ligule a ciliate membrane, 0.7–1 mm long. Leaf-blades flat or conduplicate, 6–12.5 cm long, 1.5–3 mm wide, coriaceous, glaucous. Leaf-blade surface smooth, glabrous. Leaf-blade margins cartilaginous, scabrous. Leaf-blade apex obtuse, simple or apiculate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, unilateral, 8–18 cm long, 5–7.5 mm wide. Rhachis angular. Spikelet packing broadside to rhachis, crowded, regular, 2 -rowed. Spikelets ascending, solitary. Fertile spikelets sessile. Pedicels absent.

Fertile Spikelets. Spikelets comprising 10–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 6–8 mm long, 1.5–2.75 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets falling as a whole.

Glumes. Glumes lower persistent, upper deciduous, similar, shorter than spikelet. Lower glume lanceolate or ovate, 1.5–2 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute or acuminate. Upper glume oblong or

ovate, 1.5–2 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein smooth. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile florets imbricate to tip. Fertile lemma ovate, dorsally straight along back, 1.75–2.5 mm long, cartilaginous, pallid or grey, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea ovate, 1 length of lemma, 2 -veined. Palea keels winged, narrowly winged, ciliolate. Palea surface glabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, isodiametric, 0.75 mm long.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent. India, Sri Lanka.

TDWG4. Andhra Pradesh, Bihar. Maharashtra, Tamilnadu, West Bengal. Himachal Pradesh.

Eragrostiella collettii (Stapf) Bor. *Ind. For.* 66:270 (1940).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from Myanmar. **Basionym or Replaced Name:** *Eragrostis collettii* Stapf, *Fl. Brit. India* 7(22): 326 (1897) [1896]

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Collett 19*, Oct 1888, Burma: Meiktalla (K).

ST: *Abdul Huk s.n.*, 20 Aug 1890, Pinmona (CAL).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Henry Collett (1836–1901) English-born soldier who collected in Myanmar.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, slender, 40–60 cm long, 1–2 -noded. Lateral branches lacking. Leaves mostly basal, without demarcation between sheath and blade. Ligule a ciliolate membrane. Leaf-blades filiform, convolute, 5–10 cm long, 1–2 mm wide. Leaf-blade surface pilose, hairy adaxially. Leaf-blade apex attenuate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, unilateral, 10–17 cm long. Rhachis angular. Spikelet packing broadside to rhachis, regular, 2 -rowed. Spikelets ascending, solitary. Fertile spikelets sessile. Pedicels absent.

Fertile Spikelets. Spikelets comprising 12–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 10–12 mm long, 2–2.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets falling as a whole.

Glumes. Glumes lower persistent, upper deciduous, similar, shorter than spikelet. Lower glume lanceolate or ovate, 2 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume oblong or ovate, 2 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets imbricate to tip. Fertile lemma ovate, dorsally convex along back, 2 mm long, cartilaginous, purple, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea ovate, 2 -veined. Palea keels winged, narrowly winged, ciliolate. Palea surface pubescent, hairy on back or on flanks. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, isodiametric, 0.5 mm long. Embryo 0.4 length of caryopsis.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indo-China. Andaman Is, Myanmar.

Eragrostiella leioptera (Stapf) Bor. *Ind. For.* 66:270 (1940).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from India. **Basionym or Replaced Name:** *Eragrostis leioptera* Stapf, *Fl. Brit. India* 7(22): 325 (1897) [1896]

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: T: *C.B.Clarke 15552 A*, 22 Oct. 1871, Sohra: 4000: Khasia (LE).

T: *C.B.Clarke 17482 A*, 13 Oct. 1872, Sohra : 4000: Khasia (LE). sub *E. rigida* Stapf.

PT: *C.B.Clarke 40381*, 11 Sept. 1885, Cheira : 4000 : Khasia (LE). sub *E. rigida* Stapf with drawings.,

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. *leios*, smooth; pteron, wing. Lemma keels glabrous.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–60 cm long, wiry, 1–2-noded. Lateral branches lacking. Leaves mostly basal, differentiated into sheath and blade. Leaf-sheath oral hairs bearded. Ligule a ciliolate membrane, 3 mm long. Leaf-blades filiform, conduplicate, 20–30 cm long, 2–3 mm wide. Leaf-blade apex attenuate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, unilateral, 13–22 cm long. Rhachis angular. Spikelet packing broadside to rhachis, regular (but interrupted below), 2-rowed. Spikelets ascending, solitary. Fertile spikelets sessile. Pedicels absent.

Fertile Spikelets. Spikelets comprising 13–19 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 9–12 mm long, 3–4 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets falling as a whole.

Glumes. Glumes lower persistent, upper deciduous, similar, shorter than spikelet. Lower glume lanceolate or ovate, 1.5 mm long, 0.7–0.8 length of upper glume, membranous, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume oblong or ovate, 1.75–2 mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets imbricate to tip. Fertile lemma ovate, 2.25–2.5 mm long, chartaceous, dark green or grey, keeled, 3-veined, 0–3-veined. Lemma apex acute. Palea ovate, 1 length of lemma, 2-veined. Palea keels winged, conspicuously winged (0.3 mm wide), eciliate. Palea surface glabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, isodiametric, 0.75–1 mm long.

N = 10 (1 ref TROPICOS).

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent. Assam.

TDWG4. Assam, Meghalaya.

Eragrostiella lolioides (Hand.-Maz.) P. C. Keng. *Acta Bot. Sin.* 9: 51 (1960).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. **Basionym or Replaced Name:** *Eragrostis lolioides* Hand.-Mazz., *Symb. Sin.* 7(5): 1282–1283 (1936)

. T.:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Yunnan: 'Steppen der Str. St. unter Datienngai in der Niederung s des Yangtse e von Yungbei, Sandstein', 1400 m., 4 Nov. 1916, *Handel-Mazzetti 130 34* (HT: ?).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 682).

Derivation (Clifford & Bostock 2007): Gk. *-oides*, resembling. Similar to *Lolium*.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Cataphylls evident. Culms erect, 20–50 cm long. Lateral branches lacking. Leaves mostly basal. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades filiform, convolute, 5–15 cm long, 0.5 mm wide, stiff, grey-green. Leaf-blade venation indistinct. Leaf-blade surface pubescent, hairy adaxially. Leaf-blade margins scabrous. Leaf-blade apex obtuse.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, unilateral, 10–30 cm long, bearing 7–35 fertile spikelets on each. Rhachis angular. Spikelet packing broadside to rhachis, distant. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 7–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–8 mm long, 3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 2 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume lanceolate, 3 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile lemma ovate, 3 mm long, cartilaginous, keeled, keeled above, 3-veined, 0–3-veined. Lemma midvein scaberulous. Lemma apex truncate. Palea ovate, 2-veined. Palea keels winged, narrowly winged. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3. Caryopsis with adherent pericarp, ellipsoid, 0.75 mm long.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central.

TDWG4. Yunnan.

Eragrostiella nardoides (Trin.) Bor. *Ind. For.* 66:270 (1940).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from Nepal. **Basionym or Replaced Name:** *Eragrostis nardoides* Trin., *Mem. Acad. Imp. Sci. St.-Petersbourg, Ser. 6, Sci. Math.* 1(4): 415 (1830)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST or PT: ex Nepalia (LE).

HT: *Wallich 3827F*, Nepal (LE; IT: K).

Illustrations (Books): H.J.Noltie, *The Grasses of Bhutan* (2000) (659, Fig. 33).

Derivation (Clifford & Bostock 2007): Gk. -oides, resembling. With an inflorescence resembling that of *Nardus*.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–60 cm long, 2-noded. Lateral branches lacking. Leaves mostly basal, without demarcation between sheath and blade. Leaf-sheaths antrorsely scabrous. Leaf-sheath oral hairs lacking or bearded. Ligule a ciliolate membrane, 0.3 mm long. Leaf-blades filiform, convolute, 10–22 cm long, 1–2 mm wide. Leaf-blade surface scabrous, rough adaxially, pilose, hairy adaxially. Leaf-blade apex attenuate.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, erect, unilateral, 14–19 cm long, 2.5–5 mm wide. Rhachis angular. Spikelet packing broadside to rhachis, crowded, regular (but interrupted below), 2-rowed. Spikelets ascending, solitary. Fertile spikelets sessile. Pedicels absent.

Fertile Spikelets. Spikelets comprising 11–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 8–9 mm long, 2–2.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets falling as a whole.

Glumes. Glumes lower persistent, upper deciduous, similar, shorter than spikelet. Lower glume lanceolate or ovate, 1.5 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume oblong or ovate, 2 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1-veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile florets imbricate to tip. Fertile lemma lanceolate, 2 mm long, cartilaginous, grey, keeled, 3-veined, 0–3-veined. Lemma apex acuminate, scabrous or pubescent. Palea ovate, 0.8 length of lemma, 2-veined. Palea keels winged, narrowly winged, ciliolate. Palea surface glabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, isodiametric.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent. Eastern Himalaya.

TDWG4. Bhutan. Bihar. Uttah Pradesh.

Eragrostis acamptoclada Cope. *Kew Bull.* 53:136 (1998).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Zambia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Mwinilunga Distr.: marginal zone of dambo in Kalahari sand country, 1220 m, Sep 1934, *Trapnell 1613* (HT: K).

Illustrations (Journals): *Kew Bulletin* (53: 137, Fig.2 (1998)).

Derivation (Clifford & Bostock 2007): Gk *a-*, without; *kampto*, bend; *klados*, branch. Culms stiff.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous, persistent and investing base of culm, with compacted dead sheaths. Culms erect, 40–80 cm long. Culm-internodes eglandular. Lateral branches lacking. Leaf-sheaths longer than adjacent culm internode, eglandular, without keel, glabrous on surface. Ligule a fringe of hairs. Leaf-blades filiform, involute, 10–21 cm long, 0.5–0.7 mm wide, eglandular. Leaf-blade margins ciliate, hairy at base.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or oblong, loose, 13–25 cm long. Primary panicle branches without sterile bristles or sterile at the tips. Panicle branches stiff, straight, eglandular, glabrous

in axils or bearded in axils, with insignificant pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, flexuous, 3–6 mm long.

Fertile Spikelets. Spikelets comprising 8–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or ovate, laterally compressed, 4.5–8 mm long, 2.5–2.8 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas, fragile above. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 1.8–2.3 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.8–2.3 mm long, 0.9–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent. Fertile lemma elliptic, 1.8–2.3 mm long, membranous, pallid or purple, suffused with last colour, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex truncate. Palea 2 -veined. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1–1.4 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Angola, Zambia.

Eragrostis acraea De Winter. *Kirkia*, 1: 100 (1961).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Zimbabwe. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Vumba Mts.: Obermeyer 2046 (PRE holo, BM, BOI, K, SRGH).

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):57, t. 24).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): Gk. akrea, dwelling on heights. A species of high mountain grasslands.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Butt sheaths persistent and investing base of culm, with compacted dead sheaths. Culms robust, 100–200 cm long. Lateral branches lacking. Leaf-sheaths 20–40 cm long, glabrous on surface or pilose. Ligule a fringe of hairs. Leaf-blades flat or involute, 30–60 cm long, 3–13 mm wide. Leaf-blade surface ribbed, glabrous or pilose, sparsely hairy.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, 15–70 cm long, 5–20 cm wide. Primary panicle branches ascending, whorled at lower nodes. Panicle branches scabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 5–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 4–6 mm long, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.5 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume surface asperulous. Lower glume apex acute. Upper glume ovate, 1.6–2.3 mm long, 0.75–0.85 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume surface asperulous. Upper glume apex acute.

Florets. Fertile lemma ovate, 2.2–2.7 mm long, 1.5–2 mm wide, chartaceous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma surface scaberulous. Lemma apex acute. Palea chartaceous. Palea keels scaberulous, eciliate. Palea surface scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1.7 mm long, red or purple. Caryopsis with adherent pericarp, ellipsoid or oblong, 1 mm long, dark brown. Embryo 0.4 length of caryopsis. Hilum punctiform.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa. Mozambique, Zimbabwe. Limpopo, North-West, Mpumalanga, Eastern Cape.

Eragrostis acuta Hitchcock. *Proc. Biol. Soc. Wash* 41: 159 (1928).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: A.S. Hitchcock 263, Jul-Aug 1900, USA: Florida: Punta Rassa (US-731236; IT: US-1503824).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. acuo, sharpen. Spikelets acute to acuminate.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms erect, 40–60 cm long. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades flat or involute, 2–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 10–20 cm long, 0.5–0.6 of culm length. Primary panicle branches ascending, profusely divided, subdividing 3–4 times. Panicle branches stiff. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 8–20 mm long.

Fertile Spikelets. Spikelets comprising 10–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 8–14 mm long, 3 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2.5 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 3 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 3 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acuminate. Palea keels smooth or scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, 0.8 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. Southeastern USA. Florida.

Eragrostis acutiflora (Kunth) Nees. *Agrost. Bras.* 501 (1829).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Colombia. **Basionym or Replaced Name:** *Poa acutiflora* Kunth, *Nov. Gen. Sp. (quarto ed.)* 1: 161 (1815) [1816]

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Humboldt & Bonpland 1603*, Apr, Colombia: on the Rmo Magdalena (P; IT: B-W, P, US-2891479 (fragm. ex P Kunth script, P Willd. script)).

Illustrations (Books): S.A.Renvoize, *Gramineas de Bolivia* (1998) (Fig. 67), J.A.Steyermark et al, *Flora of the Venezuelan Guayana* Vol. 8 (2004) (103, Fig. 69).

Derivation (Clifford & Bostock 2007): L. acuo, sharpen; flos, flower. Paleas, lemmas or glumes with sharp apices.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms erect or geniculately ascending, 35–70 cm long, 1.5–2 mm diam. Culm-internodes distally glabrous. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.2 mm long. Leaf-blades conduplicate or involute, 6–25 cm long, 2–4 mm wide. Leaf-blade surface ribbed, scabrous, rough adaxially, pubescent, hairy adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 17–28 cm long, 8–14 cm wide, contracted about primary branches. Primary panicle branches 1 -nate, 5–10 cm long. Panicle branches bearded in axils. Spikelets appressed, solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 2–5 mm long.

Fertile Spikelets. Spikelets comprising 9–17 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–10 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, with lower narrower than upper, shorter than spikelet. Lower glume ovate, 0.9–1.5 mm long, 0.7–0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.3–1.4 mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2–2.2 mm long, membranous, light green or purple, streaked with last colour (along keel), keeled, 3 -veined, 0–3 -veined. Lemma surface smooth or scaberulous. Lemma apex acuminate, mucronate. Palea 0.9 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 0.3 mm long, purple. Caryopsis with adherent pericarp, oblong, 0.7 mm long.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. Mexico. Southwest Mexico, Southeast Mexico. **Mesoamerica, Caribbean, Northern South America, Western South America, Brazil.** Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama. Trinidad-Tobago. French Guiana, Guyana, Surinam, Venezuela. Bolivia, Colombia, Ecuador. Brazil West Central, Brazil Northeast, Brazil North, Brazil Southeast.

TDWG4. Amazonas, Acre, Rondonia. Colima, Guerrero, Jalisco, Nayarit. Chiapas.

Eragrostis acutiglumis L. Parodi. *Not. Mus. La Plata, Bot.*, 2: 7 (1937).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Argentina. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *L.R. Parodi 6168*, 5 Feb 1925, Argentina: Corrientes: Mercedes (BAA-992; IT: L, SI, US-1256543).

Illustrations (Books): A.Burkat, *Flora Ilustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (193, Fig 68), B.Rosengurtt, *Gramineas Uruguayas I* (1970).

Derivation (Clifford & Bostock 2007): L. acuo, sharpen; gluma, husk. Glumes acuminate.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Basal innovations intravaginal. Culms 25–50 cm long. Leaf-sheaths 3–7 cm long. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades curved, filiform, involute, 6–30 cm long, 1–2 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 15–30 cm long, 11–20 cm wide, 0.66 of culm length. Primary panicle branches 1-nate. Panicle axis 4 noded. Panicle branches glabrous in axils. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 7–17 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 6–13 mm long, 1.8–2.5 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume linear or lanceolate, 1.8–3 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume linear or lanceolate, 1.8–3 mm long, 0.9–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma lanceolate, 2–3 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute. Palea 1.7 mm long. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.3–0.5 mm long. Caryopsis with adherent pericarp, oblong or ovoid, 0.7–0.8 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil, Southern South America. Brazil South. Argentina Northeast, Uruguay.

TDWG4. Corrientes, Entre Rios.

Eragrostis aegyptiaca (Willd.) Delile. *Fl. Egypt.* 157. t. 4. f. 2. (1813).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Egypt. **Basionym or Replaced Name:** *Poa aegyptiaca* Willd., *Enum. Pl.* 107 (1809)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Delile s.n.*, Egypt: ex insulis Nili arenosis (B-W-1918.3).

Illustrations (Books): L.Boulos, *Flora of Egypt* 4 (2005) (260, Pl. 77).

Derivation (Clifford & Bostock 2007): L. Egyptian. From Aegyptus, now Egypt.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms decumbent, 10–30 cm long. Ligule a fringe of hairs. Leaf-blades 2–15 cm long, 1–2.5 mm wide.

Inflorescence. Inflorescence a panicle, embraced at base by subtending leaf. Panicle open, linear or lanceolate, 3–20 cm long. Primary panicle branches appressed or ascending, not whorled or whorled at lower nodes, bearing spikelets almost to the base. Panicle branches scaberulous, glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–16 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 3.5–15 mm long, 0.8–1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.5–0.7 mm long, 0.5 length of upper glume, hyaline, without keels, 0 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1–1.4 mm long, 0.8 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla. Fertile lemma ovate, 1.2–1.7 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.2 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.5–0.6 mm long.

Distribution (TDWG). Continent. Europe, Africa, Temperate Asia.

Region. Eastern Europe.

Country /Province /State. Belarus, Central European Russia, East European Russia, South European Russia, Northwest European Russia, Ukraine. **Northern Africa, West tropical Africa, Northeast tropical Africa.** Egypt (as subspecies *aegyptiaca* & *humifusa*), Libya. Mali, Nigeria, Senegal. Sudan. **Western Asia, Arabian Peninsula.** Palestine, Israel & Jordan. Saudi Arabia.

TDWG4.

Eragrostis aethiopica Chiov. Robecchi, *Somalia*, 726 (1899).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Somalia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Somalia, Uebi: Robecchi-Bricchetti 193 (FI syn) ; Somalia, Uebi: Robecchi-Bricchetti 247 (FI syn) ; Somalia, Uebi: Robecchi-Bricchetti 254 (FI syn).

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):57, t. 24), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (153, Fig 120), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (155, Fig 52).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. -ica, belonging to. In classical usage Aethiopia was south of the Sudan and widely used in that sense.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 10–60 cm long. Ligule a fringe of hairs. Leaf-blades 3–20 cm long, 1–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, effuse, 6–25 cm long. Primary panicle branches not whorled or whorled at lower nodes. Panicle branches straight, glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, glabrous.

Fertile Spikelets. Spikelets comprising 6–18 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 1.7–5 mm long, 0.7–1 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, dissimilar, shorter than spikelet. Lower glume ovate, 0.3–0.5 mm long, 0.5–0.6 length of upper glume, hyaline, without keels, 0 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.6–0.8 mm long, 0.8 length of adjacent fertile lemma, hyaline, 1-keeled, 1 -veined. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla. Fertile lemma ovate, 0.7–1 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse or acute. Palea keels smooth. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.1–0.2 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.4–0.5 mm long.

Distribution (TDWG). Continent. Africa, Temperate Asia.

Country /Province /State. **West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean.** Rwanda, DRC. Eritrea, Ethiopia (inc. Eritrea), Somalia. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Botswana, Limpopo, Mpumalanga, Swaziland. Madagascar. **Arabian Peninsula.** Saudi Arabia.

Eragrostis airoides Nees. *Agrost. Bras.* 509 (1829).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Raddi s.n.*, Brazil: in muris veteribus prope Rio de Janeiro (LE).

ST: *F. Sello s.n.*, s.d., In confinibus regni Paraguayan et prov. Monte-Video (B; IST: BAA-996 (fragm. ex B), LE).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (104), S.A.Rennoize, *Gramineas de Bolivia* (1998) (313, Fig. 66), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (343, Fig. 79 & 353, Fig. 81), A.Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (191, Fig. 67), A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (342, Fig. 88), M.N.Correa, *Flora Patagonica Parte III, Gramineae* (1978) (488, Fig. 329), B.Rosengurt, *Gramineas Uruguayas I* (1970) (260, Fig. 107).

Derivation (Clifford & Bostock 2007): Gk. -oides, resembling. Inflorescences resemble those of *Aira*.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms robust, 50–100 cm long. Lateral branches lacking. Leaf-sheaths longer than adjacent culm internode, glabrous on surface or pilose. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades flat or involute, 20–70 cm long, 3–6 mm wide. Leaf-blade surface scaberulous, rough adaxially.

Inflorescence. Inflorescence a panicle, embraced at base by subtending leaf. Panicle open, oblong, effuse, 30–50 cm long. Panicle branches capillary, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising (1–)2(–3) fertile florets, with a barren rhachilla extension or with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 1.5–2 mm long, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes pubescent.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.7 mm long, 0.7–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.75–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.1–1.3 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.2–0.3 mm long. Caryopsis with adherent pericarp, ellipsoid or orbicular, isodiametric, 0.5–0.7 mm long, dark brown, reticulate.

$2n = 36$.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. South-central USA, Southeastern USA. Texas. Alabama. Caribbean, Northern South America, Western South America, Brazil, Southern South America. Cuba. Venezuela. Bolivia, Colombia. Brazil Southeast, Brazil South. Argentina Northeast, Argentina Northwest, Paraguay, Uruguay.

TDWG4. Mato Grosso, Bahia, Minas Gerais, Rio de Janeiro, Espirito Santo, Sao Paulo Parana, Catarina, Rio Grande do Sul. Jujuy, Santiago del Estero, Tucuman. Buenos Aires, Chaco, Cordoba, Corrientes, Distrito Federal, Entre Rios, Formosa, La Pampa, Misiones, Santa Fe.

Eragrostis alta Keng. *Lingnan Sc. Journ.* 16 :1 (1937).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Hainan: Changjiang Xian, in forest of moist sandy soil, Lok Nooi Shan and vicinity, 10 March 1933, *S.K. Lau 1291* (HT: National Research Institute of Biology, Acad. Sinica Nanking; IT: Lingnan Nat. Hist. Surv. & Mus., US-2891443 (fragm.)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. tall. Culms tall, relative to those of other members of the genus.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, culms solitary or caespitose. Culms erect, 120–150 cm long, 3–4 mm diam., 5–7 -noded, with 0.5 of their length below uppermost node. Culm-internodes distally glabrous. Leaf-sheaths loose, 15–24 cm long, longer than adjacent culm internode, as wide as blade at the collar, reticulately

veined, glabrous on surface. Ligule a fringe of hairs, 0.2–0.6 mm long. Leaf-blades 30–45 cm long, 4–5 mm wide. Leaf-blade surface scaberulous, rough adaxially, glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 30–40 cm long. Primary panicle branches appressed or ascending, 1–2-nate, 15 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1.5–3 mm long, scaberulous.

Fertile Spikelets. Spikelets comprising 5–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 2–3 mm long, 0.8–1 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 0.3 mm long, glabrous.

Glumes. Glumes similar, shorter than spikelet. Lower glume ovate, 0.75 mm long, 1 length of upper glume, membranous, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume ovate, 0.75 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile lemma ovate, 1 mm long, membranous, keeled, 3-veined, 0–3-veined. Lemma lateral veins distinct, less than two thirds length of lemma. Lemma apex obtuse. Palea 0.8 mm long, 2-veined. Palea keels ciliate or ciliolate. Palea apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2, 0.3–0.4 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Hainan.

Eragrostis alveiformis M. Lazarides. *Austral. Syst. Bot.* 10(1): 96 (1997).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Darling Downs Distr., Milmerran, 15 Mar 1931, *C.E. Hubbard 5854* (CANB; IT: BRI, K).

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (248), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (374 & 391, Fig 67 & 70), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 172, Fig.2 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. alveus*, little hollow; *forma*, appearance. Leaves and culm internodes with pitted or warty glands.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 34–115 cm long, 2–3-noded. Culm-internodes glandular. Leaf-sheaths glandular, glabrous on surface or pilose. Ligule a fringe of hairs, 0.5 mm long. Leaf-blades 12–25 cm long, 1–2.5 mm wide, coriaceous. Leaf-blade surface scabrous, glabrous or pilose, with tubercle-based hairs. Leaf-blade margins glandular.

Inflorescence. Inflorescence a panicle. Peduncle eglandular. Panicle open, ovate, 11–47 cm long, 7–17 cm wide. Primary panicle branches 6–13.5 cm long. Panicle axis eglandular or glandular. Panicle branches stiff, eglandular or glandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–3 mm long, eglandular.

Fertile Spikelets. Spikelets comprising 12–33 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate or ovate, laterally compressed, acute, 6.5–15.5 mm long, 1.6–2.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes straight, 0.3–0.5 mm long, eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume linear or ovate, 1.3–2.2 mm long, 1 length of upper glume, cartilaginous, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex obtuse to acuminate. Upper glume lanceolate or ovate, 1.3–2.2 mm long, 0.66–0.75 length of adjacent fertile lemma, cartilaginous, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex obtuse to acuminate.

Florets. Fertile lemma oblong or ovate, 2–2.6 mm long, cartilaginous, dark green, shiny, keeled, 3-veined, 0–3-veined. Lemma surface scaberulous. Lemma apex obtuse. Palea elliptic or oblanceolate, hyaline, 2-veined. Palea keels thickened. Palea apex obtuse, ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.5 mm long, retained within floret or eventually exerted. Caryopsis with adherent pericarp, ellipsoid or oblong, flattened, plano-convex, without sulcus, 0.8–1.2 mm long, red.

Distribution (TDWG). Continent. Europe (*), Australasia.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Australia.** Queensland, New South Wales, Victoria. Central, South East, Inland. Coast, Tablelands, Western Slopes.

Eragrostis amanda W.D. Clayton. *Kew Bull.* 25(2): 253 (1971).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Kenya. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Kenya: Kiambu Dist.: Gakae Forest Station, 20 Apr 1959, *Dyson 442* (HT: K).

Illustrations (Books): R.M.Pohill, F.T.E.A., *Gramineae* (2(1974):196, Fig.62).

Derivation (Clifford & Bostock 2007): L. meriting love. Worthy of recognition.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 120–250 cm long. Ligule a fringe of hairs. Leaf-blades 30–60 cm long, 5–10 mm wide, coriaceous, stiff.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, dense, 30–40 cm long. Primary panicle branches not whorled. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–16 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 6–14 mm long, 1.5–2.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, tough throughout or fragile above, with the distal florets disarticulating separately.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2.2 mm long, 0.7–0.9 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 2.5–3 mm long, 1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla or divergent. Fertile lemma elliptic or oblong, 2.6–3 mm long, membranous, dark brown or purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex emarginate or obtuse. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.5–1.7 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa. Kenya.

Eragrostis ambleia W.D. Clayton. *Kew Bull.* 27(1): 152 (1972).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Kenya. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Kenya: Tana River Dist.: Garsen, dry dense thorn scrub on sandy soil, 16 Sep 1958, *Hacker 161B* (HT: EAH).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk amblyos, blunt. Glumes truncate.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 30–90 cm long. Ligule a fringe of hairs. Leaf-blades 15–30 cm long, 2–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 15–25 cm long, evenly furnished or contracted about primary branches. Primary panicle branches spreading. Panicle branches stiff, straight, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 7–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 4–10 mm long, 1.5–2 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate or ovate, 1.5–2 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse or acute. Upper glume lanceolate or ovate, 1.5–2 mm long, 1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse or acute.

Florets. Fertile lemma elliptic or oblong, 1.6–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex truncate. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.5–0.7 mm long. Caryopsis with adherent pericarp, ellipsoid or orbicular, 0.5–0.6 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa, East tropical Africa. Somalia. Kenya.

Eragrostis ambohibengensis A. Camus. *Bull Soc. Bot. France* 74: 689 (1928).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Madagascar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Madagascar occident: Mont Ambohibenga (Milanja), *Perrier de la Bathie 11291*.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From Mt Ambohibenga, Madagascar.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms 17–35 cm long, 4–5 -noded. Ligule a fringe of hairs. Leaf-blades 8–10 cm long, 1–2 mm wide. Leaf-blade surface pubescent, hairy adaxially. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear, 5–14 cm long. Primary panicle branches indistinct the panicle almost racemose, 0.5–2 cm long. Spikelets solitary. Fertile spikelets sessile or pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 16–24 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 12–14 mm long, 4 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes 0.6 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume linear, 3 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume linear, 4 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 4 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acuminate. Palea 3.5 mm long. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ellipsoid.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

Eragrostis ambositrensis A. Camus. *Bull. Soc. Bot. France*, 100: 353 (1953).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Madagascar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Madagascar, Ambositra: Perrier 10788.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms geniculately ascending, 40–50 cm long, 5–6 -noded. Leaf-sheaths smooth, glabrous on surface. Ligule a fringe of hairs. Leaf-blades convolute, 3–6 cm long. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 12–17 cm long. Primary panicle branches 1 -nate, 7 cm long. Panicle axis glabrous. Panicle branches capillary, flexuous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 15–20 mm long.

Fertile Spikelets. Spikelets comprising 26–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, straight or curved, laterally compressed, 12–17 mm long, 3–4 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.8–2.2 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.8–2.2 mm long, 0.75 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume apex acute.

Florets. Fertile lemma ovate, 2.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea 1.7–2 mm long. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

TDWG4.

Eragrostis ambrensis A. Camus. *Bull. Soc. Bot. France*, 100: 354 (1953).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Madagascar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Madagascar, Lake Maudit: Perrier 17713.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms geniculately ascending or decumbent, 20–40 cm long. Culm-internodes striate, smooth, distally glabrous. Lateral branches ample. Ligule absent. Leaf-blades conduplicate, 3.5–5.5 cm long, 3 mm wide. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear, 5–14 cm long, 1–1.5 cm wide. Primary panicle branches appressed, 4–5 cm long. Panicle axis glabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 7–8 mm long, 2–2.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes 0.5 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.5 mm long, 0.75 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.8–2 mm long, 0.75 length of adjacent fertile lemma, 1-keeled, 3 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2.2–2.5 mm long, membranous, dark green (olive), keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins obscure. Lemma apex acute. Palea 1.5 mm long. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

TDWG4.

Eragrostis anacrantha Cope. *Kew Bull.* 53:138 (1998).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online.

TYPE from Zambia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Zambia: Mkushi Distr.: Kundalila Falls, 13 km SE of Kanona, 1400 m, 15 Oct 1967, *Simon & Williamson 1615* (HT: K; IT: PRE, SRGH).

Illustrations (Journals): *Kew Bulletin* (53: 137, Fig.2 (1998)).

Derivation (Clifford & Bostock 2007): Gk *an-*, without; *akros*, at the end; *anthos*, flower. Inflorescence branch tips lacking spikelets.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Butt sheaths glabrous, persistent and investing base of culm, with fibrous dead sheaths. Culms erect, 45–90 cm long. Culm-internodes eglandular. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheaths eglandular, without keel, glabrous on surface. Ligule a fringe of hairs. Leaf-blades involute, 3–30 cm long, 0.5–1 mm wide, eglandular. Leaf-blade surface glabrous to pilose.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, elliptic or oblong, 4–30 cm long. Primary panicle branches sterile at the tips. Panicle branches stiff, straight, eglandular, bearded in axils, with insignificant pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 2.5–8 mm long.

Fertile Spikelets. Spikelets comprising (6–)8–13 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, subterete, 4.5–6 mm long, 1.8–2.6 mm wide, persistent on plant (but shedding caryopsis) or breaking up at maturity (tardily), rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes similar, shorter than spikelet. Lower glume ovate, 0.8–1(–1.5) mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume ovate, 1.2–1.6(–2) mm long, 0.66 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile florets divergent. Fertile lemma elliptic, 1.6–1.9 mm long, membranous, yellow or mid-green or grey, without keel, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma margins eciliate or pilose. Lemma apex obtuse. Palea bowed outwards, 2 -veined. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.6–0.9 mm long. Caryopsis with adherent pericarp, orbicular, isodiametric, 0.4 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Zambia.

Eragrostis anacranthoides Cope. *Kew Bull.* 53:139 (1998).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Zambia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Zambia: Kawambwa Distr.: Chisinga Ranch, 1400 m, 27 Apr 1961, *Astle 548* (HT: K; IT: SRGH).

Illustrations (Journals): *Kew Bulletin* (53: 137, Fig.2 (1998)).

Derivation (Clifford & Bostock 2007): Gk *an-*, without; *akros*, at the end; *anthos*, flower; *oides*, resembling. Inflorescence branch tips lacking spikelets.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Butt sheaths glabrous. Culms erect, 15–30 cm long. Culm-internodes eglandular. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheaths eglandular, without keel, pilose. Ligule a fringe of hairs. Leaf-blades flat or involute, 4–8 cm long, 1–2 mm wide, eglandular. Leaf-blade surface pilose.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or oblong, 7–13 cm long. Primary panicle branches sterile at the tips. Panicle branches stiff, straight, eglandular, bearded in axils, with insignificant pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, flexuous, 8–10 mm long.

Fertile Spikelets. Spikelets comprising 6–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, subterete, 2.5–3.5 mm long, 1.5 mm wide, persistent on plant (but shedding caryopsis) or breaking up at maturity (tardily), rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes similar, shorter than spikelet. Lower glume ovate, 0.8–0.9 mm long, 0.75–0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume ovate, 0.9–1.1 mm long, 0.6–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile florets divergent. Fertile lemma elliptic, 1.2–1.3 mm long, membranous, grey, without keel, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma margins pilose. Lemma apex obtuse. Palea bowed outwards, 2 -veined. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2, 0.2 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.4 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Zambia.

Eragrostis ancashensis Peterson, Refulio & Tovar. *Sida* 19:64 (2000).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Peru. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *P.M. Peterson & N. Refulio Rodrmiguez 13793*, 20 Mar 1997, Peru: Dptm. Ancash: Prov. Recuay: Cordillera Blanca, ca. 20 km E of Raquia on Rt. 02–014, on road to Huaraz, 10:08'55.8"S, 77:19'48.8"W, 3000 m, along roadside with shrubby Asteraceae, *Lupinus*, *Vicia*, and *Commelina* (USM; IT: K, MO-5156401, NY, RSA, TAES, UC, US, WIS).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. *-ensis*, denoting origin. From Ancash Region, Peru.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 26–84 cm long, 0–2 -noded. Culm-internodes terete, distally glabrous. Leaf-sheaths 6–10 cm long, longer than adjacent culm internode, glabrous on surface. Leaf-sheath oral hairs ciliate, 3 mm long. Ligule a fringe of hairs, 0.4–0.7 mm long. Collar pallid. Leaf-blades flat or involute, 10–26 cm long, 1–3 mm wide. Leaf-blade surface glabrous, hairless except near base. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 10–38 cm long, 5–15 cm wide. Primary panicle branches ascending, 1–3 -nate, 1.5–11 cm long. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, flexuous, 1.2–6 mm long, scaberulous.

Fertile Spikelets. Spikelets comprising 3–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 3–6.1 mm long, 2–4.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes compressed, pilose, with 1.5 mm long hairs.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate or ovate, 2–2.8 mm long, 1 length of upper glume, membranous, glandular (on keel), 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute or acuminate, muticous or mucronate. Upper glume lanceolate or ovate, 2–2.8 mm long, 1 length of adjacent fertile lemma, membranous, glandular

(on keel), 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute or acuminate, mucicous or mucronate.

Florets. Fertile lemma ovate, 2–3.2 mm long, membranous, dark green, glandular on veins, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins obscure. Lemma surface scaberulous, rough above. Lemma apex acute. Palea elliptic, bowed outwards, 1.8–3.1 mm long, 1 length of lemma. Palea keels tuberculate. Palea apex truncate or obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, 0.2–0.3 mm long, fleshy. Anthers 3, 1.2–2 mm long, yellow or purple. Caryopsis with adherent pericarp, oblong, laterally compressed, sulcate on hilar side, 0.7–0.9 mm long, dark brown, striate.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Brazil. Peru.

Eragrostis andicola R. Fries. *Nov. Act. Soc. Sci. Upsal. Ser. 4*, 1 no. 1, 180. (1905).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Argentina. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Fries 924a*, 26 Nov 1901, Argentina: Prov. Jujuy: Moreno in montibus saxosis apricis siccis, 3500–3700 m (BAA-998, CORD).

ST: *Fries 924*, 15 Dec 1901, Prov. Jujuy: Moreno in montibus saxosis apricis siccis (BAA, CORD, US-2891444 (fragm.)).

Illustrations (Journals): *Ann. Missouri Bot. Gard.* (94: 759 fig 8 (2007)).

Derivation (Clifford & Bostock 2007): L. -cola, dweller. Andean species.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, short-lived, caespitose. Culms erect, 7–15 cm long. Culm-internodes distally glabrous. Lateral branches lacking. Leaf-sheaths 1–2 cm long, glabrous on surface, outer margin hairy. Ligule a fringe of hairs, 1–1.5 mm long. Leaf-blades flat or convolute, 2–5 cm long, 2.5–3.5 mm wide. Leaf-blade surface scabrous, rough adaxially. Leaf-blade margins scabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, 3.5–8 cm long, 2.5–4 cm wide. Primary panicle branches 1–2 -nate. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–2 mm long.

Fertile Spikelets. Spikelets comprising 3–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 3–5 mm long, 2–2.5 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.5 mm long, 0.5–0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume ovate, 2 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile lemma ovate, 2 mm long, membranous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma apex acute. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Southern South America. Argentina Northwest.

TDWG4. Jujuy.

Eragrostis annulata Rendle ex S. Elliot. *Journ. Bot.* 29 :72 (1891).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Hab. Ookiep, Namaqualand, Scully *s.n.*.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (177, Fig 150), M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984).

Derivation (Clifford & Bostock 2007): the pedicels with a glandular ring.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Glands annular, or capitate. Culms geniculately ascending, 14–35 cm long. Culm-internodes glandular. Leaf-sheaths glandular, pilose, with tubercle-based hairs.

Ligule a fringe of hairs. Leaf-blades 5–10 cm long, 2–3 mm wide, glandular. Leaf-blade surface pilose, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, dense, 4–12 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, glandular, ciliate.

Fertile Spikelets. Spikelets comprising 3–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–15 mm long, 1.5–2.3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets disarticulating separately. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.7 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.2 mm long, 0.66 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma oblong or ovate, 1.8 mm long, membranous, pallid or purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex obtuse. Palea keels eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.6–1 mm long. Caryopsis with adherent pericarp, oblong or ovoid. Embryo 0.75 length of caryopsis.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa. Angola. Namibia, Botswana, Northern Cape.

Eragrostis apiculata Dvll. *Fl. Bras.* 2(3): 145 (1878).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: *A.F. Regnell III, 1411, 25 Jun 1868, Brazil: Minas Gerais (US-911759, US-2891446 (fragm.))*.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. apiculum*, small point; -ata, possessing.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms erect or geniculately ascending, 45 cm long. Culm-internodes elliptical in section, striate, smooth, distally glabrous. Culm-nodes brown, glabrous. Leaf-sheaths mostly shorter than adjacent culm internode, striately veined, smooth, glabrous on surface or pilose (sparsely). Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blade surface pilose, hairy abaxially, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, dense, straight, 7–15 cm long. Primary panicle branches appressed or ascending, 1–2 -nate, simple or sparsely divided. Panicle axis scaberulous. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 10–15 mm long, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes similar, shorter than spikelet. Lower glume linear or lanceolate, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume margins ciliolate. Lower glume apex cuspidate. Upper glume lanceolate, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume margins ciliolate. Upper glume apex cuspidate.

Florets. Fertile lemma lanceolate or oblong, 2–3 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma margins ciliolate, hairy above. Lemma apex apiculate, muticous or mucronate. Apical sterile florets resembling fertile though underdeveloped.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil. Brazil Southeast.

Eragrostis aquatica Honda. *Bot. Mag., Tokyo*, 42: 508 (1928).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), T.Koyama, *Grasses of Japan and its neighboring regions* (1987).

TYPE from Japan. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *T. Sato s.n., 1924, Hondo: Tashiro circ. Nagoya, prov. Owari*

ST: *S. Miki* 2, 1923, Hondo: Nara, prov. Yamato

ST: *Y. Ogawa* 10, 1922, Hondo: Ikeda, prov. Kii.

Illustrations (Books): T.Koyama, *Grasses of Japan and its neighbouring regions* (1987) (252, Fig 93).

Derivation (Clifford & Bostock 2007): *L. aqua*, water; -ica, belonging to. Growing in or close to water.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, culms solitary. Culms erect, 25–50 cm long, 0.8–1.2 mm diam., 4–5 -noded. Culm-internodes 1–6 cm long, smooth, distally glabrous. Lateral branches lacking. Leaf-sheaths mostly shorter than adjacent culm internode, smooth, glabrous on surface. Ligule a fringe of hairs. Leaf-blades involute, 4–20 cm long, 1.8–4 mm wide. Leaf-blade surface smooth, glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, loose, 12–22 cm long, 5–20 cm wide, 0.33 of culm length. Primary panicle branches ascending, 1–2 -nate, 6–12 cm long. Panicle axis 5–8 noded, with lower internodes 1–4 cm long. Panicle branches stiff. Spikelets solitary. Fertile spikelets sessile or pedicelled. Pedicels present, eglandular.

Fertile Spikelets. Spikelets comprising 9–23 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 6–12 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes 0.5 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.5–2 mm long, 1 length of upper glume, chartaceous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5–2 mm long, 0.75–0.9 length of adjacent fertile lemma, chartaceous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2–2.2 mm long, chartaceous, grey or purple, suffused with last colour, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea bowed outwards. Palea keels scabrous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ellipsoid, 0.75 mm long.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Eastern Asia. Japan.

Eragrostis arenicola C. E. Hubbard. *Kew Bull.* 1949, 345 (1949).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Zimbabwe. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Eyles* 2190, Zimbabwe (K).

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):73, t. 28), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (180, Fig 154).

Derivation (Clifford & Bostock 2007): *L. arena*, sandy place; -cola, dweller. Species of sandy habitats.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms geniculately ascending, 15–35 cm long, firm or wiry. Ligule a fringe of hairs. Leaf-blades 2–10 cm long, 1–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle contracted, lanceolate, 6–18 cm long. Primary panicle branches appressed or ascending. Panicle branches eglandular or glandular, without exudate. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 2–4.5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.5 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1–1.5 mm long, 1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic or oblong, 1–1.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein without distinctive roughness or scaberulous. Lemma apex obtuse, mucicous or mucronate (obscurely). Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.3–0.4 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.5 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa. Nigeria. Central African Republic,

Cameroon, DRC. Sudan. Tanzania. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Limpopo, Kwazulu-Natal.

Eragrostis aristata De Winter. *Bothalia* 7: 468 (1961).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Namibia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: H.G.W.J. Schweichkerdt 2252, no date, Namibia: Omaruru (PRE; IT: K, US-2462092).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. arista, bristle; -ata, possessing. The apices of lemmas, paleas or glumes drawn out into a distinct awn.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Glands sunken crateriform. Culms erect or geniculately ascending, 30–75 cm long, 2–4 -noded. Leaf-sheaths glandular, ribbed. Ligule a fringe of hairs. Leaf-blades 10–20 cm long, 3–6.5 mm wide, flaccid, glandular. Leaf-blade surface scabrous, rough adaxially. Leaf-blade margins glandular, scabrous.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 15–30 cm long, 10–15 cm wide, contracted about secondary branches. Primary panicle branches spreading. Panicle branches secund, scabrous. Spikelets solitary. Fertile spikelets sessile or pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 6 mm long, 1.5–3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1 mm long, 0.6–1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1–1.75 mm long, 0.66–0.9 length of adjacent fertile lemma, membranous, glandular, 1-keeled, 3 -veined. Upper glume surface scabrous, rough on veins. Upper glume apex entire or dentate, 3 -fid, acute.

Florets. Fertile lemma ovate, 1.5–2 mm long, membranous, glandular on veins, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins ribbed, excurrent. Lemma surface scaberulous, rough on veins. Lemma apex dentate, 2 -fid, acute, awned, 1 -awned. Principal lemma awn from a sinus, 0.5–1.5 mm long overall. Palea bowed outwards. Palea keels scabrous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.5–0.6 mm long. Caryopsis with adherent pericarp, oblong, light brown or dark brown. Embryo 0.5–0.6 length of caryopsis. Hilum punctiform.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Namibia.

Eragrostis aristiglumis Kabuye. *Kew Bull.* 26(1): 83 (1971).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Tanzania. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Tanzania, Trekimboga track: Greenway & Kanuri 14468 (EA holo,K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. arista, bristle; gluma, husk. With awned subtending glumes or lemmas.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 30–70 cm long. Ligule a fringe of hairs. Leaf-blades 10–20 cm long, 2–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, 12–28 cm long, with spikelets clumped along branches. Primary panicle branches simple, 1–10 cm long. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets sessile (subtended by bristles).

Fertile Spikelets. Spikelets comprising (4–)6–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 2.2–3.2 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.5 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume margins ciliate. Lower glume apex acute, awned, 1 -awned, awn 2.6–3(–3.6) mm long. Upper glume ovate, 1.5 mm long, 1.1 length of

adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume margins ciliate. Upper glume apex acute, awned, 1 -awned, awn 2.6–3(–3.6) mm long.

Florets. Fertile lemma oblong, 1.4 mm long, membranous, dark brown, keeled, 3 -veined, 0–3 -veined. Lemma apex truncate, mucronate. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.8–0.9 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.6 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa. Tanzania.

Eragrostis articulata (Schrank) Nees. *Agrost. Bras.* 502 (1829).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. **Basionym or Replaced Name:** *Poa articulata* Schrank, *Syll. Pl. Nov.* 1: 194 (1824)

. T:<Type of Basionym>; *vide* TROPICOS and Kew Synonymy Database: HT: *Anon. s.n.*, Brazil (M (photo, K)).

Illustrations (Books): S.A.Renvoize, *Gramineas de Bolivia* (1998) (311, Fig 65), S.A.Renvoize, *The Grasses of Bahia*, 1984 (67, Fig. 24), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (328, Fig. 75).

Derivation (Clifford & Bostock 2007): L. *articulus*, joint; -ata, possessing. Jointed with spikelets readily articulating.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Glands annular (on pedicels). Culms erect, 14–35 cm long. Leaf-sheaths glandular. Ligule a fringe of hairs, 0.5–1 mm long. Leaf-blades linear or lanceolate, flat or conduplicate, 2.5–8 cm long, 2–5 mm wide. Leaf-blade surface hirsute, with tubercle-based hairs. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, 5–16 cm long. Primary panicle branches ascending or spreading. Panicle branches stiff. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, glandular.

Fertile Spikelets. Spikelets comprising 8–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–10 mm long, 1.5–3 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.8–1 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Brazil, Southern South America. Bolivia. Brazil West Central, Brazil Northeast, Brazil North, Brazil Southeast, Brazil South. Paraguay.

TDWG4. Mato Grosso, Goias, Bahia, Maranhao, Piaui, Ceara, Rio Grande do Norte, Paraiba, Pernambuco, Alagoas, Sergipe, Minas Gerais, Rio de Janeiro, Espirito Santo, Sao Paulo Parana, Catarina, Rio Grande do Sul. Salta. Corrientes, Formosa, Misiones.

Eragrostis aspera (Jacq.) Nees. *Fl. Afr. Austr.* 408 (1841).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)*.

TYPE from Cult. Europe from India. **Basionym or Replaced Name:** *Poa aspera* Jacq., *Hort. Bot. Vindob.* 3: 32, t. 56 (1776)

. T:<Type of Basionym>; *vide* TROPICOS and Kew Synonymy Database: HT: Cultivated in Europe with seed from India (W; IT: K).

Illustrations (Books): F.N.Hepper, *F.W.T.A.* 3(2) (1972) (388, Fig.429), R.M.Polhill, F.T.E.A., *Gramineae* (2(1974):190, Fig.60), G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):57–95, t. 24–32, 1 plate, 1 spikelet drawing), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (160, Fig 128), J.Bosser, *Gramineae des Paturage et des Cultures a Madagascar* (1969) (157, Fig 53), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (120, Fig 49), L.Boulos, *Flora of Egypt* 4 (2005) (254, Pl.

75), N.L.Bor, *The grasses of Burma, Ceylon, India and Pakistan* (1960) (502, Fig 55), K.M.Mathew, Further Illustrations on the *Flora of Tamilnadu Carnatic* (1988) (pl.771), E.Hafliger & E.Schultz, Grass Weeds, CIBA-GEIGY (2:65(1980)).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. rough. Plants with rough pedicels or leaf-blades.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 20–80 cm long. Ligule a fringe of hairs. Leaf-blades 10–30 cm long, 3–10 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, effuse, 15–40 cm long. Primary panicle branches ascending (at 45 degrees), profusely divided. Panicle branches capillary, flexuous, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 6–22 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 3–10 mm long, 1–1.5 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes definite.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume elliptic or ovate, 1–1.5 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse or acute. Upper glume elliptic or ovate, 1–1.5 mm long, 0.8–0.9 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse or acute.

Florets. Fertile lemma elliptic or oblong, 1.2–1.7 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex truncate or obtuse. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.2 mm long. Caryopsis with adherent pericarp, orbicular, isodiametric, 0.5 mm long.

Distribution (TDWG). Continent. Europe (*), Africa, Temperate Asia, Tropical Asia.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Northern Africa, West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean.** Egypt. Burkina, Gambia, Ghana, Guinea, Ivory Coast, Mali, Nigeria, Sierre Leone, Niger. Cameroon, DRC. Eritrea, Ethiopia (inc. Eritrea), Socotra, Somalia, Sudan. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Kwazulu-Natal, Northern Cape. Mauritius, Madagascar. **Arabian Peninsula.** Oman, Saudi Arabia. **Indian Subcontinent, Indo-China, Malesia.** India. Myanmar. Java, Philippines.

TDWG4. Karnataka. Maharashtra, Rajasthan, Tamilnadu.

Eragrostis astrepta S.M. Phillips. *Kew Bull.* 46(1): 111 (1991).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ethiopia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Ethiopia: Sidamo: Bitata, 20 km from Negele on road to Kebre Menghist, 1550–1600 m, *Gilbert & Ermias 8440* (HT: K; IT: ETH, UPS).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk -a, without; streptos, collar. The leaf-blades lack the large collar-like glands of related species.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms geniculately ascending, 8–23 cm long. Culm-internodes glandular. Lateral branches ample. Leaf-sheaths glandular. Ligule a fringe of hairs. Leaf-blades 1–4 cm long, 2–3.5 mm wide, stiff. Leaf-blade margins eglandular. Leaf-blade apex abruptly acute.

Inflorescence. Inflorescence a panicle, terminal and axillary. Panicle contracted, lanceolate, 3–7 cm long. Primary panicle branches 1-nate. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–1.5 mm long, eglandular or glandular.

Fertile Spikelets. Spikelets comprising 10–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or lanceolate, laterally compressed, 5.5–7.5 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.3–1 mm long, 0.33–0.5 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute.

Upper glume lanceolate, 1–1.8 mm long, 0.66–0.75 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets free at tip (outline serrate). Fertile lemma ovate, 1.7–2.2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.2 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa. Ethiopia (inc. Eritrea).

Eragrostis astreptoclada Cope. *Kew Bull.* 53:135 (1998).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Zambia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Zambia: Mporokoso Distr.: Kipoma Falls, 3.2 km NW of Mporokoso, c. 1550 m, 18 Oct 1967, *Simon & Williamson 1096* (HT: K; IT: SRGH).

Illustrations (Journals): *Kew Bulletin* (53: 137, Fig.2 (1998)).

Derivation (Clifford & Bostock 2007): Gk *astreptos*, rigid; *klados*, stem. Panicle branches stiff and straight.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous, persistent and investing base of culm, with compacted dead sheaths. Culms erect, 35–70 cm long. Culm-internodes eglandular. Lateral branches lacking. Leaf-sheaths longer than adjacent culm internode, eglandular, without keel, glabrous on surface. Ligule a fringe of hairs. Leaf-blades filiform, involute, 10–20 cm long, 0.4–0.6 mm wide, eglandular. Leaf-blade surface pilose, sparsely hairy, hairy abaxially. Leaf-blade margins ciliate, hairy at base.

Inflorescence. Inflorescence a panicle. Panicle open, linear or oblong, loose, 30–35 cm long. Primary panicle branches without sterile bristles or sterile at the tips. Panicle branches stiff, straight, eglandular, glabrous in axils, with insignificant pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, flexuous, 1–5 mm long.

Fertile Spikelets. Spikelets comprising 5–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 3–4.5 mm long, 1–1.8 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas, fragile above. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 0.6–1.1 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 0.6–1.1 mm long, 0.2–0.33 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent. Fertile lemma elliptic or oblong, 1.4–1.6 mm long, membranous, pallid or grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex obtuse. Palea 2 -veined. Palea keels scaberulous. Palea surface glabrous or pilose, hairy on flanks. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.8–0.9 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.5 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Zambia.

Eragrostis atropioides Hillebr. *Fl. Haw. Isl.* 531 (1888).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Hawaii. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: East Maui, probably growing in wet places,.

Illustrations (Books): W.L.Wagner et al., *Manual of the Flowering Plants of Hawai'i*, Vol. 2 (1990) (1539, Pl. 227).

Derivation (Clifford & Bostock 2007): Gk. -oides, resembling. Resembling *Atropis*.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Rhizomes elongated, scaly. Culms erect, 100–150 cm long. Leaf-sheaths glabrous on surface, outer margin hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 5 mm long. Leaf-blades 20–40 cm long, 4–6 mm wide. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence a panicle. Peduncle scaberulous above. Panicle contracted, lanceolate, 25–50 cm long, 2–4 cm wide. Primary panicle branches appressed, 1–10 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 10–25 mm long, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2.5–3.5 mm long, 0.9 length of upper glume, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 3–4 mm long, 1.5–2 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 2 mm long, chartaceous, keeled, 3 -veined, 0–3 -veined. Lemma apex dentate, obtuse. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Pacific.

Country /Province /State. North-central Pacific. Hawaii.

Eragrostis atrovirens (Desf.) Steud. *Steud. Nom. Bot. ed. 2*, 1: 562 (1840).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*) (& as *E.luzoniensis*), N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960).

TYPE from Algeria. **Basionym or Replaced Name:** *Poa atrovirens* Desf., *Fl. Atlant.* 1: 73, pl. 14 (1798). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *Desfontaines 160*, Algeria: e Barbaria (FI; IT: BAA-1006, LE, P).

Recent Synonyms: *Eragrostis luzoniensis* Steud., *Syn. Pl. Gram.* 266 (1854). *Eragrostis longispicula* S.C. Sun & H.Q. Wang, *Acta Phytotax. Sin.*, 19(4): 513 (1981).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (163, Fig. 133 & 164, Fig 134), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (167, Fig 58), K.M.Mathew, Further Illustrations on the *Flora of Tamilnadu Carnatic* (1988) (Pls. 772 & 773), H.J.Noltie, *The Grasses of Bhutan* (2000) (661, Fig. 34), H.B.Gilliland, *Grasses of Malaya* (1971) (Pl. 2), H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005) (69, Fig. 60), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (374 & 391, Fig. 67 & 70), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (104), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Figs. 664 & 667), E.Hafliger & E.Schultz, *Grass Weeds*, CIBA-GEIGY (2:66(1980)).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 172, Fig.2 (1997)), *Ann. Missouri Bot. Gard.* (94: 760 fig 9 (2007)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, H.B.Gilliland et al., *Flora of Malaya Vol. 3 Grasses* (1971);.

Derivation (Clifford & Bostock 2007): *L. ater*, dark; *virens*, green. Glumes greenish-black.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes absent. Butt sheaths glabrous. Culms geniculately ascending, 30–100 cm long, 1.5–3 mm diam. Leaves basal and cauline. Ligule a fringe of hairs. Leaf-blades 15–30 cm long, 2–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, 4–40 cm long, contracted about primary branches. Primary panicle branches ascending. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–50 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–20 mm long, 1.5–2.5 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.8–1.7 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.8–1.7 mm long, 0.6–0.8 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume apex acute.

Florets. Fertile florets divergent, free at tip. Fertile lemma ovate, 1.4–2 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma surface asperulous. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.5–1 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.7 mm long. $N = 10$ (2 refs TROPICOS), or 30 (2 refs TROPICOS).

Distribution (TDWG). Continent. Europe (*), Africa, Temperate Asia, Tropical Asia, Australasia, Pacific, North America, South America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Northern Africa, West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean.** Morocco, Tunisia. Benin, Burkina, Gambia, Ghana, Guinea-Bissau, Guinea, Ivory Coast, Liberia, Mali, Mauritania, Nigeria, Senegal, Sierre Leone. Central African Republic, Cameroon, Gabon, DRC. Sudan. Kenya, Tanzania. Angola, Mozambique, Zambia, Zimbabwe. Madagascar. **China, Eastern Asia.** China South Central, Hainan, China Southeast. Japan. **Indian Subcontinent, Indo-China, Malesia, Papuasia.** Eastern Himalaya, India, Pakistan, Sri Lanka, West Himalaya. Andaman Is, Laos, Myanmar, Thailand. Borneo, Java, Lesser Sunda Is, Malaya, Singapore, Philippines, Sumatra. New Guinea. **Australia.** Queensland. **Northwestern Pacific.** New Caledonia (*). Caroline Is. **Southeastern USA, Mexico.** Alabama, Florida, Mississippi. Central Mexico, Gulf (Mexico), Southwest Mexico, Southeast Mexico. **Mesoamerica, Northern South America, Western South America.** Belize, Guatemala, Nicaragua. Venezuela. Bolivia, Colombia, Peru.

TDWG4. Fujian, Guangdong, Guangxi, Hunan. Guizhou, Sichuan, Yunnan. Darjeeling, Bhutan, Sikkim. Assam, Manipur, Meghalaya. Andhra Pradesh, Bihar, Kerala. Madhya Pradesh, Rajasthan, Tamilnadu. Himachal Pradesh. North, South East. Puebla. Veracruz. Jalisco, Oaxaca. Chiapas, Tabasco.

Eragrostis attenuata Hitchcock. *Contrib. U. S. Nat. Herb.* 24: 340 (1927).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Peru. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: A.S. Hitchcock 22424, 17 Nov 1923, Peru: Arequipa: on sandy slopes of hills ca. 3 km back of Mollendo (US-1164909; IT: BAA-1007, US-1164361).

Illustrations (Journals): *Ann. Missouri Bot. Gard.* (94: 761 fig 10 (2007)), *Ruizia* (13:245, Fig 28g-i (1993)).

Derivation (Clifford & Bostock 2007): L. drawn out or narrowed. Spikelets or panicles narrow.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms geniculately ascending or decumbent, 20–80 cm long. Leaf-sheaths longer than adjacent culm internode, glabrous on surface or pilose. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 1 mm long. Leaf-blades 2–4(–7) cm long, 1(–3) mm wide. Leaf-blade surface pilose, hairy on both sides, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Panicle spiciform, linear, interrupted, 20–40 cm long, 0.3 cm wide. Primary panicle branches appressed, 0.5–3 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–1 mm long.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 2 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1 mm long, 0.7–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.2 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma surface scaberulous. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, oblong, 0.6 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. **Western South America, Southern South America.** Peru. Chile North. Antofagasta, Atacama.

Eragrostis aurorae Launert. *Bol. Soc. Brot., Ser. 2*, 5: 15 (1961).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Angola. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Angola, Vila da Ponte: Gossweiler 2382 (K holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. aurora*, redness of dawn. The lemma grades from yellow at the apex to purple at the base, thereby resembling the appearance of a dawn sky.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths persistent and investing base of culm, with fibrous dead sheaths. Culms 35–70 cm long, 1–3 -noded. Lateral branches lacking. Leaf-sheaths pilose. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs. Leaf-blades flexuous, filiform, involute, 5–12 cm long, 0.2–1 mm wide. Leaf-blade surface scaberulous, rough adaxially, glabrous or pilose, sparsely hairy.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, 16–25 cm long, 10–14 cm wide. Primary panicle branches ascending or spreading. Panicle branches straight or flexuous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 2–7 mm long, tip widened.

Fertile Spikelets. Spikelets comprising 5–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 8–10 mm long, 1–1.2 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2.5 mm long, 0.8–0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 2.8–3 mm long, 0.8–0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 3.2–3.4 mm long, 1.6–1.8 mm wide, herbaceous, much thinner on margins, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse or acute. Palea elliptic, 0.9 length of lemma. Palea keels eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, 0.7 mm long, fleshy. Anthers 3, oblong, 1.6 mm long. Caryopsis with adherent pericarp, oblong, 1.6 mm long.

Distribution (TDWG), Continent. Africa.

Country /Province /State. South tropical Africa. Angola, Zambia.

Eragrostis australasica (Steud.) C. E. Hubbard. *Kew Bull.* 1941, 26 (1941).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Glyceria australasica* Steud., *Syn. Pl. Glumac.* 1: 286 (1854). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Drummond 387*, N. Holland (P; IT: US (fragm. ex P)).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (363, Fig 290), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (117, Pl 33), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (567, Fig 113), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (249), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002); K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): *L. -ica*, belonging to. From Australia.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms erect or geniculately ascending, 100–300 cm long, woody. Culm-internodes solid. Lateral branches ample. Branch complement one to many. Ligule a fringe of hairs. Leaf-blades 3–20 cm long, 2–5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 10–20 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, compressed slightly, 5–12 mm long, 0.9–1 mm wide, breaking up at maturity, rachilla persistent, retaining paleas, fragile above, with the distal florets disarticulating separately. Rachilla internodes 1 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.5–0.75 length of upper glume, hyaline, 1-keeled, 0 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume oblong, 2.5–4 mm long, 1.2–1.3 length of adjacent fertile lemma, hyaline, 1-keeled, 0 -veined. Upper glume primary vein absent. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 2–3 mm long, hyaline, grey, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea readily splitting down midline. Palea keels smooth. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, oblong or obovoid, 1 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. **Australia.** Western Australia, Northern Territory, South Australia, Queensland, New South Wales, Victoria.

Ereman, South-West. Central Australia. NW & Lake Eyre, Southern. Central, Inland. Tablelands, Western Slopes, Western Plains.

Eragrostis autumnalis Keng. *Contrib. Biol. Lab. Sc. Soc. China, Bot. Ser.*, 10: 178 (1936).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Jiangsu: open roadside by rice-field, Yun Tai Shan, s. of Nanjing, 17 Aug. 1928, *Y.L. Keng 1705* (HT: National Central Univ., Nanjing; IT: US-1387177).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 674).

Derivation (Clifford & Bostock 2007): L. of the autumn. Flowering in autumn.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms 15–40 cm long, 1–2 mm diam., 2–4 -noded. Lateral branches lacking or sparse. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs, 0.5 mm long. Collar pilose. Leaf-blades conduplicate or involute, 5–15 cm long, 1–2.5 mm wide. Leaf-blade surface scaberulous, rough adaxially, glabrous or pilose, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, oblong or ovate, flexuous, 5–15 cm long, contracted about primary branches. Primary panicle branches appressed or ascending, 1–4 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–5 mm long.

Fertile Spikelets. Spikelets comprising 4–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–6 mm long, 1.2–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes 0.75 mm long, eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein smooth or scaberulous. Lower glume lateral veins absent. Lower glume apex obtuse or acute. Upper glume ovate, 1.5 mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein smooth or scaberulous. Upper glume lateral veins absent. Upper glume apex obtuse or acute.

Florets. Fertile lemma ovate, 2–2.2 mm long, membranous, light green or purple, tipped with last colour, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct or prominent. Lemma apex obtuse or acute. Palea 1.5 mm long. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 0.3 mm long. Caryopsis with adherent pericarp, 0.8–1 mm long.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. **China.** China South Central, China North-Central, China Southeast.

TDWG4. Hebei, Shandong. Anhui, Fujian, Henan, Jiangsu, Jiangxi, Zhejiang. Guizhou.

Eragrostis bahamensis Hitchc. *Pl. of Bahamas* 149 (1893).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Bahamas. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: A.S. Hitchcock s.n., 3 Dec 1890, Bahamas: Inagua (MO-47402; IT: NY-70972, US-748406).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From the Bahamas.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 10–25 cm long, wiry. Leaf-sheath oral hairs woolly. Ligule a fringe of hairs, 0.4 mm long. Leaf-blades curved, involute, 5–8 cm long, 1 mm wide. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence a panicle, shorter than basal leaves. Panicle open, linear, 5–8 cm long, 0.7–1 cm wide. Primary panicle branches simple. Panicle axis glabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–2 mm long, glabrous.

Fertile Spikelets. Spikelets comprising 6–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or lanceolate or oblong, laterally compressed, 5–9 mm long, 2–3 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.2 mm long, 0.66 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.8 mm long, 1.6 mm wide, cartilaginous, shiny, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute. Palea 1 length of lemma. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ovoid, 0.8 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Caribbean. Bahamas.

Eragrostis bahiensis Roem. & Schult. *Syst. 2 Mant.* 318 (1824).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Brazil. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Maximilian Neowidensis*, Brazil: without precise locality (LE).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (102), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (171, Fig. 26), S.A.Renvoize, *Gramineas de Bolivia* (1998) (322, Fig. 68), S.A.Renvoize, *The Grasses of Bahia*, 1984 (65, Fig. 23), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (343, Fig. 79 & 346, Fig. 80 var. *bahiensis* & var. *contracta*), A.Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (187, Fig. 65 & 188, Fig 66), B.Rosengurt, *Gramineas Uruguayas I* (1970) (254, Fig. 104 & 255, Fig. 105 as *E. expansa*).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From Bahia Province, Brazil.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 30–120 cm long. Leaf-sheaths without keel, glabrous on surface. Ligule a fringe of hairs, 1 mm long. Leaf-blades involute, 5–25 cm long, 1–2.5 mm wide. Leaf-blade surface glabrous. Leaf-blade apex attenuate, filiform.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, 5–30 cm long, 2.5–18 cm wide. Primary panicle branches appressed or ascending or spreading, 3.5–12 cm long. Panicle branches flexible or capillary, flexuous, scabrous, glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1.2–1.4 mm long, scabrous.

Fertile Spikelets. Spikelets comprising 10–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or lanceolate, laterally compressed, 6–10 mm long, 2–2.2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1–1.4 mm long, 0.75–0.9 length of upper glume, membranous, 1-keeled, keeled above, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 1.4–1.6 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, keeled above, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2–2.2 mm long, 1.2 mm wide, membranous, without keel, rounded except near apex, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute. Palea 0.8–1 length of lemma. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ellipsoid, 0.8 mm long.

Distribution (TDWG). Continent. Europe (*), Australasia (*), North America, South America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Australia.** Queensland (*). Caroline Is (*). **Southeastern USA, Mexico.** Alabama, Florida, Louisiana, Mississippi. Northeast Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica, Caribbean, Northern South America, Western South America, Brazil, Southern South America.** Guatemala, Honduras. French Guiana, Venezuela. Bolivia, Colombia, Peru. Brazil

West Central, Brazil Northeast, Brazil North, Brazil Southeast, Brazil South. Argentina Northeast, Paraguay, Uruguay.

TDWG4. Central, South East. Mato Grosso, Goias, Bahia, Maranhao, Piaui, Minas Gerais, Rio de Janeiro, Espirito Santo, Sao Paulo Parana, Catarina, Rio Grande do Sul. Salta, Tucuman. Buenos Aires, Chaco, Cordoba, Corrientes, Entre Rios, Formosa, Misiones, Santa Fe. Guanajuato. Jalisco, Nayarit, Oaxaca. Chiapas, Tabasco.

Eragrostis balgooyi Veldkamp. *Blumea* 47(1): 168 (2002).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, J.F.Veldkamp, Poaceae ms (*Flora Malesiana*).

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: *Van Balgooy & Mamesah 6259* (HT: L; IT: BO, K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): In honor of Maximilian Michael Josephus van Balgooy (1932-) Indonesian botanist and long-time resident of the Netherlands.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Basal innovations extravaginal and intravaginal. Culms erect, 40–80 cm long. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades 7–24 cm long, 1.5–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate or ovate, 27–47 cm long, 8 cm wide. Primary panicle branches ascending, 1-nate, 2–4.5 cm long, bearing spikelets almost to the base. Panicle branches scaberulous, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1.5–5.5 mm long.

Fertile Spikelets. Spikelets comprising 20–40 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 11.5–20 mm long, 2.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1–1.6 mm long, 0.5–0.7 length of upper glume, membranous, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 2–2.5 mm long, 0.8–1 length of adjacent fertile lemma, membranous, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 2–3 mm long, membranous, keeled, 3-veined, 0–3-veined. Lemma lateral veins distinct. Lemma apex acuminate. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.4–0.5 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.8 mm long, reticulate.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Malesia, Papuaasia. New Guinea.

Eragrostis barbinodis Hack. ex Schinz. *Bull. Herb. Boiss.* 3 :390 (1895).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Rehmann 5362*, South Africa: Transvaal: Boshveld, Klippan

ST: *Rehmann 5364*, South Africa: Transvaal: Boshveld, Klippan.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (140&147, Fig 108&114).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. barba, beard; nodus, knot. Nodes bearded.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Stolons present. Culms geniculately ascending or decumbent, 50–100 cm long, without nodal roots or rooting from lower nodes. Culm-nodes bearded. Ligule a fringe of hairs. Leaf-blades 10–15 cm long, 2–6 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 5–10 cm long. Primary panicle branches spreading. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 4–7 mm long, 1.2–1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5 mm long, 0.75–1 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla. Fertile lemma elliptic, 1.5–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea keels scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.8–1 mm long. Caryopsis with adherent pericarp.

N = 25 (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe (*), Africa.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **South tropical Africa, Southern Africa.** Mozambique. Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal.

Eragrostis barbulate Stapf. *Hook. f. Fl. Brit. Ind.* 7: 319 (1896).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960).

TYPE from Myanmar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Lower Burma; road to the Petroleum Wells, *Wallich s.n.*

Illustrations (Books): N.L.Bor, *The grasses of Burma, Ceylon, India and Pakistan* (1960) (504, Fig 56).

Derivation (Clifford & Bostock 2007): *L. barba*, beard; -ula, diminutive; -ata, possessing. Shortly bearded as of nodes or spikelets.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Glands wart-like. Culms 90–120 cm long. Ligule a fringe of hairs. Leaf-blades 30–45 cm long, 4–6 mm wide, glaucous. Leaf-blade apex attenuate, filiform.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, effuse, 15–30 cm long. Primary panicle branches spreading, 1 -nate, sparsely divided. Panicle branches capillary, flexuous, scaberulous, pubescent in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, glandular.

Fertile Spikelets. Spikelets comprising 10–25 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 7–10 mm long, 3.5–4 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes 0.25 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume orbicular, 1.5–2 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume orbicular, 1.5–2 mm long, 0.5 length of adjacent fertile lemma, membranous, 1-keeled, 1–3 -veined. Upper glume lateral veins absent or distinct. Upper glume apex obtuse.

Florets. Fertile lemma orbicular, 2–3 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1.2 mm long. Caryopsis with adherent pericarp, orbicular, isodiametric, 1 mm long.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indo-China. Myanmar.

Eragrostis barrelieri Daveau. *Morot, Journ. de Bot.* viii. 289 (1894).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960), T.G.Tutin et al, *Flora Europaea* 5 (1980).

TYPE from Egypt, Sicily, Algeria. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Ascherson s.n.*, Egypt (P; IST: K).

ST: *Balansa 734*, Algeria (P; IST: K).

ST: herb. *Todaro s.n.*, Italy: Sicily (P; IST: K).

ST: *Barrelier s.n.*, South Europe.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (157, Fig 125), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969), N.Feinbrun-Dothan, *Flora Palaestina* 4 (1986) (Pl. 377), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (10: 171, Fig.1 (1997)), L.Boulos, *Flora of Egypt* 4 (2005) (260, Pl. 77), N.L.Bor, *Gramineae* in *Flora of*

Iraq (1968) (437, Pl. 165), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (364, Fig 291), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (248), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (357 & 374, Fig 64 & 67), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (86), F.W.Gould, *The Grasses of Texas* (1975) (201, Fig. 103), A.S.Hitchcock, *Manual of the Grasses of the West Indies* (1936) (41, Fig. 20), A.Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (181, Fig 63), B.Rosengurtt, *Gramineas Uruguayas* (1970) (264, Fig. 108), E.Hafliger & E.Schultz, *Grass Weeds*, CIBA-GEIGY (2:67(1980)).

Illustrations (Journals): *Sida* (21: 1372, Fig.1A-B (2005)), *Austr. Syst. Bot.* (10: 171, Fig.1 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): in honor of Jacques Barrelier (1606–1675) French botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms geniculately ascending, 5–50(–80) cm long. Ligule a fringe of hairs. Leaf-blades flat or involute, 2–10 cm long, 2–5.5 mm wide, glaucous. Leaf-blade margins eglandular.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate or oblong, 3–20 cm long. Primary panicle branches bearing spikelets almost to the base. Panicle branches stiff, glandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, glandular.

Fertile Spikelets. Spikelets comprising 5–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–20 mm long, 1.3–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.9–1.3 mm long, 0.5–0.6 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5–2 mm long, 0.7–0.9 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla, free at tip. Fertile lemma oblong or ovate, 1.7–2.6 mm long, membranous, yellow or grey or purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex obtuse. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.2 mm long. Caryopsis with adherent pericarp, ellipsoid or oblong, without sulcus, 0.65–1 mm long, dark brown.

N = 20 (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe, Africa, Temperate Asia, Tropical Asia, Australasia (*), North America, South America.

Region. Northern Europe (*), Southwestern Europe, Southeastern Europe.

Country /Province /State. : GB Aliens (Ryves et al). : Balears, France, Spain. : Italy, Sicily. **Northern Africa, Macaronesia, West tropical Africa, West-central tropical Africa, Northeast tropical Africa, South tropical Africa, Southern Africa** (*), **Middle Atlantic ocean.** Algeria, Egypt, Libya, Morocco, Tunisia. Canary Is, Cape Verde, Madeira. DRC. Eritrea, Ethiopia (inc. Eritrea), Socotra, Somalia, Sudan. Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Northern Cape, Eastern Cape. **Western Asia, Arabian Peninsula.** Iran, Iraq. Gulf States, Kuwait, Oman, Saudi Arabia. **Indian Subcontinent.** Pakistan. **Australia.** Western Australia (*), Northern Territory (*), South Australia (*), New South Wales (*). **Northwest USA, North-central USA, Southwestern USA, South-central USA, Southeastern USA, Mexico.** Colorado. Kansas, Nebraska. Arizona, California, Nevada, Utah. New Mexico, Texas. Arkansas, Florida, Louisiana, Tennessee. Central Mexico, Northeast Mexico, Southwest Mexico, Southeast Mexico. **Caribbean, Western South America, Brazil, Southern South America.** Dominican Republic, Haiti, Jamaica, Leeward Is. Ecuador. Argentina Northeast, Uruguay.

TDWG4. South-West. Central Australia. NW & Lake Eyre, Southern. Western Plains. Santiago del Estero, San Luis. Buenos Aires, Cordoba, Distrito Federal. Puebla. Coahuila, Chihuahua, Durango, Hidalgo, Neuvo Leon, Queretaro, San Luis Potosi, Tamaulipas, Zacatecas. Oaxaca. Chiapas, Tabasco.

Eragrostis barteri C. E. Hubbard. *Kew Bull.*, 311 (1936).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Nigeria. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Barter* 877, Nigeria (K).

ST: *Nupe s.n.*, Nigeria.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Barter (c. 1920) who collected in Nigeria.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms geniculately ascending, 80–100 cm long, woody, eventually collapsing and rooting from upper nodes. Ligule a fringe of hairs. Leaf-blades 3–20 cm long, 1–2.5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 4–20 cm long, evenly furnished. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–40 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 8–16 mm long, 2–3 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1–2 mm long, 0.75–1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5–2 mm long, 0.6–0.7 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2.2–3.2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.9–1.3 mm long. Caryopsis with adherent pericarp, ellipsoid, 1 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, West-central tropical Africa, Northeast tropical Africa. Ivory Coast, Mali, Nigeria, Senegal, Sierra Leone. Cameroon, DRC.

Eragrostis basedowii Jedtoabnick. *Bot. Archiv*, iv. 328 (1923).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Sud-Australien, Flinders Range, *Basedow s.n.*.

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (365, Fig 292), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler,, *Grasses of New South Wales*, 4th edn (2008) (249), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (357 & 374, Fig 64 7 67), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 171, Fig.1 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): in honor of Herbert Basedow (1881–1933) South Australian geologist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose, clumped densely. Culms 10–30 cm long. Lateral branches lacking or sparse. Leaf-sheaths smooth, glabrous on surface. Leaf-sheath oral hairs scanty, 1–2.5 mm long. Ligule a fringe of hairs, 0.25 mm long. Leaf-blades flat or involute, 1–3 mm wide. Leaf-blade surface smooth, glabrous. Leaf-blade margins scabrous.

Inflorescence. Inflorescence a panicle. Panicle contracted, oblong, continuous or interrupted, 1–8 cm long, 0.5–2.5 cm wide. Panicle axis with lower internodes 0.5–3 cm long, smooth. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5 mm long, smooth or scabrous.

Fertile Spikelets. Spikelets comprising 9–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 5–27 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.7–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5–2.5 mm long, 0.66–0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2.5–3 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma surface scabrous. Lemma apex acute. Palea keels ciliolate, with hairs 0.5 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, South Australia, Queensland, New South Wales.

Central Australia. NW & Lake Eyre, Southern. North, Central, South East. Western Plains.

Eragrostis bemarivensis A. Camus. *Not. Syst.*, ed. Humbert, 13: 264 (1949).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Madagascar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Madagascar, Bemarivo: Perrier 11302 ; Madagascar, Bemarivo: Perrier 11932.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms erect, 40–70 cm long, 4–5-noded. Leaf-sheaths striately veined. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades erect, convolute, 10–20 cm long.

Inflorescence. Inflorescence a panicle. Panicle contracted, oblong, 20–25 cm long. Primary panicle branches 1-nate. Panicle branches glabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 3–15 mm long.

Fertile Spikelets. Spikelets comprising 10–50 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 10–15 mm long, 2.2–2.5 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes 0.7–0.9 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.6–2.5 mm long, 0.66–0.9 length of upper glume, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 2.5–2.8 mm long, 1 length of adjacent fertile lemma, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma lanceolate, 2.5–2.9 mm long, membranous, keeled, 3-veined, 0–3-veined. Lemma lateral veins distinct. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Distribution (TDWG), Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

TDWG4.

Eragrostis bergiana (Kunth) Trin. *Bull. Sc. Acad. Petersb.* i. 70. (1836).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. **Basionym or Replaced Name:** *Poa bergiana* Kunth, *Revis. Gramin.* 2: 549, t. 189 (1832)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Crescit in Promontorio bonae Spei, prope Gamkas Karroo,.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (177, Fig 149).

Derivation (Clifford & Bostock 2007): L. -ana, indicating connection. In honor of Karl Heinrich Bergius (1790–1818) German naturalist and apothecary who collected at Cape Town, South Africa.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, mat forming. Rhizomes short. Butt sheaths woolly. Culms 10–40 cm long. Ligule a fringe of hairs. Leaf-blades 0.4–0.8 cm long, 1–1.5 mm wide, coriaceous, stiff. Leaf-blade apex obtuse or abruptly acute.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, dense, 3–8 cm long, contracted about primary branches. Primary panicle branches spreading, bearing spikelets almost to the base. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 4–8 mm long, 2.2–3.8 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.2–1.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume ovate, 1.5–1.7 mm long, 0.8–1 length of adjacent fertile lemma, membranous, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile lemma orbicular, 1.7–2 mm long, chartaceous, keeled, 3-veined, 0–3-veined. Lemma lateral veins prominent. Lemma apex obtuse. Palea keels scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1.5 mm long. Caryopsis with adherent pericarp, ellipsoid.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Namibia (?), Botswana, Free State, Northern Cape, Western Cape, Eastern Cape.

Eragrostis berteroniana (Schult.) Steud. *Nom. ed.* II. i. 562. (1840).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Dominican Republic. **Basionym or Replaced Name:** *Megastachya berteroniana* Schult., *Mant.* 2: 330 (1824)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: *D. Bertero*, W.I.: Dominican Republic: Santo Domingo (IT: US-79730 (fragm.)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ana, indicating connection. In honor of Carlo Guiseppe Bertero (1789–1831) Italian botanist, physician, pharmacist and traveller.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, 10–20 cm long. Leaf-sheaths pilose, with tubercle-based hairs. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades flat or involute, 3–10 cm long, 1–2.5 mm wide. Leaf-blade surface pilose, sparsely hairy. Leaf-blade margins eglandular.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, 3–10 cm long. Panicle branches glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 15–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 7–13 mm long, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.5–0.7 mm long, 0.5–0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1 mm long, 0.5–0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5–2 mm long, membranous, eglandular, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, oblong, 0.75 mm long, truncate.

Distribution (TDWG). Continent. South America.

Country /Province /State. Caribbean. Dominican Republic, Haiti.

Eragrostis betsileensis A. Camus. *Bull. Mus. Hist. Nat., Paris*, Ser. 2, 29: 280 (1957).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Madagascar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Madagascar, Betsileo: Humbert 30071 (P holo).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms 16–20 cm long. Culm-internodes striate. Leaf-sheaths loose, striately veined, pilose. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades flat or convolute, 4–7 cm long, 2–2.5 mm wide, stiff. Leaf-blade surface hirsute, sparsely hairy, with tubercle-based hairs. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 10–12 cm long, 3–5 cm wide. Primary panicle branches spreading, 1.2–1.8 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 3–4 mm long, 9 mm long at branch tip.

Fertile Spikelets. Spikelets comprising 9–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate or oblong, laterally compressed, 6–7.5 mm long, 2.2–2.7 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes 0.5 mm long, eventually visible between lemmas, glabrous.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.8–1.2 mm long, 0.6–0.9 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper

glume ovate, 1.3 mm long, 0.66 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2 mm long, cartilaginous, shiny, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea 1.3–1.4 mm long. Palea keels winged, narrowly winged. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, ellipsoid, 0.6 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

TDWG4.

Eragrostis bicolor Nees. *Fl. Afr. Austr.* 407. (1841).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *Drhge s.n.*, In Nieuwe Hantom montibus ad Leeuwenfontein alt. 4500–5000'

ST: *Drhge s.n.*, Wonderheuvel alt. 4500–5000'

IST for 2 IST for var. alpha: (LE).

for var. alpha & beta: (LE).

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10, L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (140 & 141, Fig 108&109), M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. bis, twice; color, color. Two-colored, usually with respect to spikelets or florets.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Butt sheaths papery, pallid, glabrous or sparsely hairy. Culms erect or geniculately ascending, 10–60 cm long. Ligule a fringe of hairs. Leaf-blades 10–20 cm long, 1–1.5 mm wide, glaucous. Leaf-blade apex filiform.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, loose or effuse, 3–16 cm long, 2–8 cm wide. Primary panicle branches spreading. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 4–7 mm long, 1–1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets disarticulating into irregular segments. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1 mm long, 0.66 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5 mm long, membranous, purple or yellow, tipped with last colour, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex obtuse. Palea keels approximate, smooth or scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.8–1.2 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Europe (*), Africa.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **South tropical Africa, Southern Africa.** Angola, Mozambique, Zimbabwe. Namibia, Botswana, North-West, Free State, Northern Cape, Eastern Cape.

Eragrostis biflora Hack. ex Schinz. *Bull. Herb. Boiss.* iii. 390. (1895).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *Rehmann 3759*, South Africa: Republica Oranjensis: Bloemfontein

ST: *Rehmann 5364*, Transvaal: Boshveld, Klippan.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (140, Fig 108), M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (146, Fig 86).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. bis, twice; flos, flower. Florets two per spikelet.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 10–70 cm long. Leaf-sheaths keeled, glabrous on surface. Ligule a fringe of hairs. Leaf-blades 15–30 cm long, 4–8 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, effuse, 10–25 cm long, 0.33–0.5 of culm length. Primary panicle branches whorled at lower nodes, profusely divided. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 1–2(–3) fertile florets, with a barren rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets, or of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or ovate, laterally compressed, 1.5–2.5 mm long, 0.5–1.2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets disarticulating separately.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume elliptic, 0.8–1.3 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume elliptic, 1–1.5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1–1.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels smooth or scaberulous, eciliate.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.2–0.3 mm long. Caryopsis with adherent pericarp, orbicular. Embryo 0.5 length of caryopsis.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa, South tropical Africa, Southern Africa. Ethiopia (inc. Eritrea). Angola, Mozambique. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Free State, Northern Cape.

Eragrostis blepharostachya K. Schum. *Engl. Jahrb.* xxiv. 336. (1897).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online.

TYPE from Togo. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Kling* 79, Apr-Aug, Togoland: bei der Station Misahvhe

ST: *Baumann* 247, Togoland: bei Bodome in trockener, sonniger Savannen

ST: *Baumann* 231, Jul, Togoland: zerstreut bei Kuma G` an Wegen

ST: *Buttner* 100, Togoland: in der Steppe beim Jegebache unfern Bismarckburg

ST: *Buttner* 120, Aug, Togoland: in der Steppe beim Jegebache unfern Bismarckburg.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. blepharon, eye-lid; stachys, ear of corn. Peduncles with abundant white hairs.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 45–100 cm long. Ligule a fringe of hairs. Leaf-blades 5–30 cm long, 3–9 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 6–15 cm long. Primary panicle branches spreading, simple, bearing spikelets almost to the base. Panicle branches glandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong, glandular.

Fertile Spikelets. Spikelets comprising 5–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 5–10 mm long, 4–6.5 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 2 mm long, 1 length of upper glume, dark brown, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume surface pilose. Lower glume apex acute. Upper glume ovate, 2 mm long, 0.6–0.7 length of adjacent fertile lemma, dark brown, 1-keeled, 1 -veined. Upper glume surface pilose. Upper glume apex acute.

Florets. Fertile florets imbricate to tip. Fertile lemma ovate, 3–3.5 mm long, membranous, purple, glandular on veins, keeled, 3 -veined, 0–3 -veined. Lemma margins pilose. Lemma apex obtuse. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.6–0.7 mm long. Caryopsis with adherent pericarp, oblong, dorsally compressed, 1–1.6 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa. Ghana, Ivory Coast, Nigeria, Togo.

Eragrostis boinensis A. Camus. *Bull. Soc. Bot. France*, xcvi. 167 (1949).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Madagascar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Madagascar: Domaine de l'ouest, Boïna, sables de Madivalo, *Perrier de la Bathie* 1299.

Illustrations (Books): J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (161, Fig 55).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From Boona, Madagascar.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose, clumped loosely. Culms erect or geniculately ascending, 10–55 cm long. Culm-internodes distally glabrous. Lateral branches lacking. Leaf-sheaths glabrous on surface, outer margin glabrous or hairy. Leaf-sheath oral hairs lacking or ciliate. Ligule a fringe of hairs. Leaf-blades involute, 3–5 cm long, 1–2 mm wide. Leaf-blade surface pilose, hairy adaxially.

Inflorescence. Inflorescence a panicle. Panicle glomerate, linear, interrupted, 3–25 cm long, 0.5–0.8 of culm length. Panicle axis dominant (the spikelets in sessile clumps), with lower internodes 2–5 cm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 10–50 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 6–25 mm long, 2–3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.2–2 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.2–2 mm long, 1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.6–2 mm long, membranous, yellow or light green, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct, stopping well short of apex. Lemma apex acute. Palea 1 length of lemma. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

Eragrostis borianana Launert. *Bol. Soc. Brot., Ser. 2*, viii. 6 (1964).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Iraq. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Iraq, Baqubam: Wheeler-Haines 993 (K holotype).

Illustrations (Books): N.L.Bor, *Gramineae in Flora of Iraq* (1968) (439, Pl. 166).

Derivation (Clifford & Bostock 2007): in honor of Norman Loftus Bor (1893–1972) Irish-born Indian forest botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Glands sunken crateriform. Culms geniculately ascending, 40–50 cm long. Lateral branches lacking. Leaf-sheaths glandular. Ligule a fringe of hairs. Leaf-blades flat or involute, 5–14 cm long, 1.5–5 mm wide, glandular. Leaf-blade surface scaberulous, rough adaxially, glabrous or pubescent.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, 10–25 cm long, 3–6 cm wide. Primary panicle branches appressed or ascending, 1 -nate, 3–9 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, glandular.

Fertile Spikelets. Spikelets comprising 5–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–5 mm long, 1.3–1.75 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.3 mm long, 0.8–0.9 length of upper glume, membranous, glandular (on keel), 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.4–1.6 mm long, 0.9 length of adjacent fertile lemma, membranous, glandular (on keel), 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic, 1.6–1.8 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Western Asia. Iran, Iraq.

Eragrostis botryodes W.D. Clayton. *Kew Bull.*, 27(1): 153 (1972).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, U. Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from DRC. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Congo: Kivu, Ruthshuru to Lulenga, *Scaetta 1462* (IT: K).

Illustrations (Books): S. Phillips, *Poaceae* (Gramineae) in I. Hedberg & S. Edwards, *Flora of Ethiopia and Eritrea* (1995) (128, Fig 51).

Derivation (Clifford & Bostock 2007): Gk *botrys*, cluster of grapes; *-odes*, resembling. The inflorescence is a congested panicle.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous. Culms geniculately ascending, 20–90 cm long. Ligule a fringe of hairs. Leaf-blades 10–30 cm long, 2–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, 4–20 cm long, with spikelets clustered towards branch tips. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 3–7(–12) mm long, 1.5–2.5 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.8–1.7 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.8–1.7 mm long, 0.7–0.8 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent, imbricate to tip. Fertile lemma ovate, 1.7–2.5 mm long, membranous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels pubescent. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.5–1 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.7 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa. Rwanda, DRC. Ethiopia (inc. Eritrea). Kenya, Tanzania, Uganda. Malawi, Zambia, Zimbabwe.

Eragrostis brainii (Stent) Launert. *Senck. Biol.* xlvii. 307 (1966).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, U. Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Zimbabwe. **Basionym or Replaced Name:** *Pogonarthria brainii* Stent, *Bull. Misc. Inform. Kew* 1932: 325 (1932)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *Brain 3621*, Zimbabwe: Salisbury, 14.4 km off Beatrice road (SRGH).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of C. K. Brain (1930–42) who collected in Southern Rhodesia.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 60–130 cm long. Ligule a fringe of hairs. Leaf-blades 10–20 cm long, 1–2 mm wide, stiff. Leaf-blade surface scaberulous, rough adaxially, glabrous or pilose, sparsely hairy. Leaf-blade apex filiform.

Inflorescence. Inflorescence composed of racemes. Racemes numerous, borne along a central axis, unilateral, 1–2.5 cm long. Central inflorescence axis 13–20 cm long. Rhachis angular. Spikelet packing broadside to rhachis. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 3–3.5 mm long, 1.5–2 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pilose, hairy at tip.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.5 mm long, 0.6–0.75 length of upper glume, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5–2 mm long, 0.6–0.8 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2.3–2.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.3 mm long. Caryopsis with tardily free pericarp, oblong or orbicular, 1 mm long, striate.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Angola, Zambia, Zimbabwe.

Eragrostis braunii Schweinf. *Bull. Herb. Boiss. ii. App.* 2 41 (1894).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ethiopia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Arab., Jemen, Am Suedwestabhang des Schibam bei Menacha (2500 m), 1948, *Schweinfurth s.n.*.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Alexander Carl Heinrich Braun (1805–1877) German botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms geniculately ascending, 20–90 cm long, wiry. Ligule a fringe of hairs. Leaf-blades 5–13 cm long, 2–3 mm wide, stiff.

Inflorescence. Inflorescence a panicle. Panicle spiciform, linear, continuous or interrupted, 3–15 cm long, 0.4–1 cm wide. Primary panicle branches appressed, 0.5–2 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–1.5 mm long.

Fertile Spikelets. Spikelets comprising 6–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–6 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes definite.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.2–1.4 mm long, 0.6–0.7 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.7–2.2 mm long, 1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.7–2.2 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.4–0.6 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.7 mm long.

Distribution (TDWG). Continent. Africa, Temperate Asia.

Country /Province /State. Northeast tropical Africa, East tropical Africa. Eritrea, Ethiopia (inc. Eritrea). Kenya, Tanzania, Uganda. **Western Asia, Arabian Peninsula.** Yemen.

Eragrostis brizantha Nees. *Fl. Afr. Austr.* 411. (1841).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: T: (LE). Herb. Seidlitz(1 specim.).

IT: *Drhge s.n.*, s.d., Cap. b. sp. (LE, MO). Herb. Fischer.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (175, Fig 146).

Derivation (Clifford & Bostock 2007): Gk. brizo, nod; anthos, flower. The spikelets hang from the horizontal rhachis.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Butt sheaths glabrous or sparsely hairy. Culms erect or geniculately ascending, 4–50 cm long. Leaf-sheaths glandular. Ligule a fringe of hairs. Leaf-blades 2–15 cm long, 2–4.5 mm wide, glandular. Leaf-blade margins glandular.

Inflorescence. Inflorescence a panicle. Panicle open, pyramidal, 2–11 cm long, 1–6 cm wide, contracted about primary branches. Primary panicle branches spreading. Panicle branches glandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 8–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 3–5 mm long, 2.2–4 mm wide, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 2 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 2 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined. Upper glume apex acute.

Florets. Fertile lemma orbicular, 2 mm long, membranous, glandular on veins, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex obtuse or acute. Palea keels tuberculate (glandular), eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1–1.2 mm long. Caryopsis with adherent pericarp, obovoid, 1 mm long. Embryo 0.4 length of caryopsis.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Namibia, Botswana, Northern Cape.

Eragrostis brownii (Kunth) Nees. *Wight, Cat. Indian Pl.* :105 (1834).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)*, W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Australia. **Basionym or Replaced Name:** *Poa brownii* Kunth, *Revis. Gramin.* 1: 112 (1829), based on *Poa polymorpha* R.Br. (1812), non Wibel (1799). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: T): *R. Brown* 6284, 20 Oct 1803, Australia: "Inter australiense", Shoal water Bay (K-(H79/39 1x); IT: US-2191491 (fragm. ex K-(H79/39 1x) & Photo)). T (alpha) LT designated by Lazarides, *Austral. Syst. Bot.* 10: 101 (1997).

Recent Synonyms: *Eragrostis zeylanica* Nees & Meyen, *Nov. Act. Nat. Cur.* 19 Suppl.1 204 (1843).

Illustrations (Books): H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005) (69, Fig. 61), E.E.Henty, *A Manual of the Grasses of New Guinea* (1969) (87, Pl. 33), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (365, Fig 293), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (567, Fig 113), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (250 & 249 as *E.benthamii*), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (391, Fig 70), D.Sharp & B.K.Simon, *AusGrass. Grasses of Australia. CD-Rom Version 1.0.* (2002), E.Edgar. & H.E.Connor, *Flora of New Zealand* 5, *Gramineae* (2000) (525, Fig. 21), S-L Chen et al, *Flora of China*, *Illustrations, Poaceae* (2007) (Fig. 664).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 172, Fig.2 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass. Grasses of Australia. CD-Rom Version 1.0.* (2002);, H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005);

Derivation (Clifford & Bostock 2007): in honor of Robert Brown, (1773–1858), Scots-born English botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 15–50 cm long. Leaf-sheaths 3–4 cm long. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.2 mm long. Leaf-blades 10–25 cm long, 1–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 5–15 cm long, contracted about primary branches. Primary panicle branches ascending, 1 -nate, 2–7 cm long. Panicle branches stiff, scaberulous. Spikelets ascending or spreading, solitary. Fertile spikelets pedicelled. Pedicels present, 1–2 mm long.

Fertile Spikelets. Spikelets comprising 10–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–5.5 mm long, 1.6–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above or becoming fragile after lemmas shed, with the distal florets disarticulating separately.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.7 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5–1.7 mm long, 0.5 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 1.7–2 mm long, chartaceous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, ovoid, 0.7 mm long, red.

Distribution (TDWG). Continent. Europe (*), Temperate Asia, Tropical Asia, Australasia, Pacific.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **China, Eastern Asia.** Hainan, China Southeast. Japan, Taiwan. **Indian Subcontinent, Indo-China, Malesia, Papuaasia.** India, Sri Lanka. Andaman Is, Laos,

Nicobar Is, Thailand. Java, Malaya, Singapore, Philippines, Sumatra. New Guinea PNG, or West Papua (Irian Jaya). New Guinea. **Australia, New Zealand.** Western Australia, South Australia, Queensland, New South Wales, A.C.T., Victoria, Tasmania, Lord Howe-Norfolk Is. New Zealand North I, New Zealand South I. **South-central Pacific, Northwestern Pacific, North-central Pacific.** New Caledonia. Easter Is. Caroline Is, Marianas, Marshall Is. Hawaii.

TDWG4. Anhui, Fujian, Zhejiang. Yunnan. South-West. Southern. North, Central, South East. Coast, Tablelands, Western Slopes, Western Plains.

Eragrostis burmanica Bor. *Kew Bull.* 1951, 166 (1951).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from Myanmar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Burma: Prime Distr.: at the edge of paddy fields, 20 Jul 1948, U. *Thein Lwin* 582 (holo:K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ica, belonging to. From Burma, now Myanmar.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 30–60 cm long. Culm-nodes glabrous. Ligule a fringe of hairs. Leaf-blades flat or convolute, 7–15 cm long, 3–6 mm wide. Leaf-blade surface pubescent, hairy adaxially. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, effuse, 20–35 cm long, 7–15 cm wide. Primary panicle branches 1-nate. Panicle axis scaberulous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 10–20 mm long, scaberulous, tip widened.

Fertile Spikelets. Spikelets comprising 12–16 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–6 mm long, 1.5 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate or elliptic, 1 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume oblong, 1.5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scabrous. Lemma surface asperulous. Lemma apex acute. Palea 1 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 0.4 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.75 mm long.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indo-China. Myanmar, Thailand.

Eragrostis caesia Stapf. *Dyer, Fl. Cap.* vii. 599. (1899).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Galpin* 2414, South Africa: Coast Region: Cathcart Div., Glencairn, 4800 ft

ST: *Buchanan* 240, South Africa: Eastern Region: Natal: Riet Vley, 4000–5000 ft.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (139, Fig 107).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. bluish-grey, as of eyes. Plant in whole or in part bluish-grey.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms erect, 45–60 cm long. Lateral branches lacking. Ligule a fringe of hairs. Leaf-blades filiform, involute, 10–20 cm long, 1–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear, 5–20 cm long. Primary panicle branches appressed, 1–2 -nate, bearing spikelets almost to the base. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 4–7 mm long, 1.5–2.4 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse or acute. Upper glume lanceolate, 2 mm long, 0.66–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse or acute.

Florets. Fertile lemma lanceolate, 2–3 mm long, membranous, dark green or black, streaked with last colour (along veins), keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acuminate. Palea keels ciliolate, with hairs 0.05–0.1 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1–1.3 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Europe (*), Africa.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **South tropical Africa, Southern Africa.** Zimbabwe. Limpopo, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Lesotho, Eastern Cape.

Eragrostis caespitosa Chiov. *Ann. Bot., Roma*, xiii. 373 (1914).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Somalia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Somalia italiana a Mallei, 1913, *Paoli* 756.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. caespes*, grass that has been cut; -osa, abundance. Habit tufted.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Cataphylls evident (hard, yellow, glabrous to silky). Culms erect or geniculately ascending, 15–50 cm long, wiry. Leaf-sheaths glabrous on surface or pilose. Ligule a fringe of hairs. Leaf-blades 3–12 cm long, 2–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, dense, 3–13 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate or obovate, laterally compressed, 2.5–5.5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1–2 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1–2 mm long, 0.7–1.2 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic or oblong, 1.3–1.7 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein ciliate or ciliolate. Lemma surface smooth or scaberulous. Lemma apex obtuse, mucronate. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.8 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.5–0.6 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. **West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa.** DRC. Somalia. Kenya, Tanzania, Uganda. Mozambique.

Eragrostis camerunensis W. D. Clayton. *Kew Bull.* xx. 265 (1966).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Cameroon. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Coombe* 220, Cameroon (K; IT: P).

Illustrations (Journals): *Kew Bulletin* (20:267, Fig.3 (1966)).

Derivation (Clifford & Bostock 2007): *L. -ensis*, denoting origin. From Cameroon Mountain or Cameroun, West Africa.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes absent. Butt sheaths glabrous. Culms erect, 20–30 cm long, 1 mm diam., wiry, 1–2 -noded. Leaves mostly basal. Ligule a fringe of hairs. Leaf-blades involute or convolute, 3–7 cm long, 1–2 mm wide. Leaf-blade surface scaberulous, rough adaxially.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear, 3–9 cm long, 0.5–1.5 cm wide. Primary panicle branches appressed. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–25 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–12 mm long, 2 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1 mm long, 0.6 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume lanceolate, 1.5 mm long, 1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile lemma elliptic or oblong, 1.4–1.7 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.4–0.6 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.4–0.8 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, West-central tropical Africa. Nigeria. Cameroon.

Eragrostis canescens C. E. Hubbard. *Kewo Bull.* 1949, 348 (1949).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Malawi. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Nyasaland: North Nyasa District; Nyiks Plateau, locally common of grasslands of plateau rim, a grass of the slopes not seen on open plateau, 234 m. 19 Aug 1946, *Brass* 17334.

Illustrations (Books): R.M.Pohill, F.T.E.A., *Gramineae* (2(1974):200, Fig.63), G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):65, t. 26\7).

Derivation (Clifford & Bostock 2007): *L. canesco*, grow white. Leaf-blades or leaf-sheaths densely invested with white or grey hairs.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Butt sheaths persistent and investing base of culm, with fibrous dead sheaths. Culms erect, 30–50 cm long. Ligule a fringe of hairs. Leaf-blades filiform, 5–30 cm long, 0.3–0.6 mm wide.

Inflorescence. Inflorescence a panicle or composed of racemes. Panicle open, lanceolate, 6–30 cm long. Primary panicle branches simple, sterile at the tips. Panicle branches stiff, straight. Racemes borne along a central axis, bearing few fertile spikelets. Rhachis terminating in a barren extension, extension bristle-like. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, flexuous, 4–5 mm long.

Fertile Spikelets. Spikelets comprising 0–2 basal sterile florets, 2–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 2–9 mm long, breaking up at maturity (tardily) or persistent on plant, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume ovate, 0.5–3 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume surface glabrous or pilose. Lower glume apex acute. Upper glume ovate, 0.5–3 mm long, 0.25–1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume surface glabrous or pilose. Upper glume apex acute.

Florets. Basal sterile florets absent or 1 or 2 or more, similar, barren, with palea. Lemma of lower sterile floret similar to fertile lemma. Fertile lemma elliptic, 2–3 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins less than two thirds length of lemma. Lemma margins ciliate or eciliate (rarely). Lemma apex obtuse or acute. Palea keels scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.5–0.7 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa, South tropical Africa. Tanzania. Malawi, Zambia.

Eragrostis caniflora Rendle. *Cat. Welw. Afr. Pl.* ii. 232. (1899).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Angola. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Huilla.--Wet pasture by the river Monino, Apr 1860, *Welwitsch* 2698.

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):57, t. 24).

Derivation (Clifford & Bostock 2007): *L. canus*, greyish-white; flos, flower. Spikelets dark-purple and invested with white hairs.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths persistent and investing base of culm, with fibrous dead sheaths. Culms erect or geniculately ascending, 15–50 cm long. Ligule a fringe of hairs. Leaf-blades filiform, convolute, 2–16 cm long, 0.5–3 mm wide. Leaf-blade surface pilose. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 3–10 cm long. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–11 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 2–5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes lower persistent, upper deciduous, similar, shorter than spikelet. Lower glume ovate, 1.3–2.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume surface pilose. Lower glume apex acute. Upper glume ovate, 1.5–2.5 mm long, 0.6–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume surface pilose. Upper glume apex acute.

Florets. Fertile lemma oblong, 2–2.4 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma surface pilose, with tubercle-based hairs. Lemma apex obtuse, mucicous or mucronate. Palea 2 -veined. Palea keels scaberulous, ciliate. Palea surface pilose, hairy on flanks. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.7 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.7 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa, South tropical Africa. Tanzania. Angola, Malawi, Zambia, Zimbabwe.

Eragrostis capensis (Thunb.) Trin. *Mem. Acad. Petersb. Ser. VI.* i 400 (1830).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. **Basionym or Replaced Name:** *Briza capensis* Thunb., *Prodr. Pl. Cap.* 21 (1794)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: South Africa, Cape: Thunberg (UPS holo).

Illustrations (Books): R.M.Pohill, F.T.E.A., *Gramineae* (2(1974):193, Fig.61), G.V.Pope et al., *Flora Zambesiaca* 10, L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (140&169, Fig 108&140), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (147, Fig 87), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (149, Fig 49).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From the Cape of Good Hope, South Africa.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Butt sheaths glabrous or pubescent, persistent and investing base of culm, with compacted dead sheaths or fibrous dead sheaths. Culms erect or decumbent, 10–120 cm long. Ligule a fringe of hairs. Leaf-blades flat or convolute, 7–35 cm long, 2–5 mm wide, stiff, glaucous.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, linear or ovate, 4–11 cm long, contracted about primary branches. Primary panicle branches bearing spikelets almost to the base. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong, 1–2 mm long.

Fertile Spikelets. Spikelets comprising 3–35 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate to orbicular, laterally compressed, 3.5–15 mm long, 3–7 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 3–4 mm long, 1 length of upper glume, dark brown, 1-keeled, 1–3 -veined. Lower glume apex acute or acuminate. Upper glume ovate, 1–3 mm long, 0.4–0.8 length of adjacent fertile lemma, dark brown, 1-keeled, 1–3 -veined. Upper glume apex acute or acuminate.

Florets. Fertile lemma elliptic, 2.5–4 mm long, cartilaginous, without keel, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma surface granulose. Lemma apex obtuse. Palea keels puberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.4–1.8 mm long. Caryopsis with adherent pericarp, ellipsoid, flattened, 0.5 mm long.

N = 20 (1 ref TROPICOS), or 30 (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa, Tropical Asia.

Country /Province /State. West-central tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean. Congo, DRC. Kenya, Tanzania. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Lesotho, Northern Cape, Western Cape, Eastern Cape. Madagascar. **Indo-China.** Thailand.

Eragrostis capillaris (L.) Nees. *Agrost. Bras.* 505. (1829).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Poa capillaris* L., *Sp. Pl.* 68 (1753). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *Kalm s.n.*, North America (LINN). LT designated by Hitchcock, *Contr. U.S. Natl. Herb.* 12: 121 (1908).

ST: (MW).

ST: *Gronovius s.n.* [Clayton no. 580], [det. as *E. pectinacea* by A.S. Hitchcock].

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (82), F.W.Gould, *The Grasses of Texas* (1975) (197, Fig. 100).

Illustrations (Journals): *Sida* (21: 1375, Fig.2A-D (2005)).

Derivation (Clifford & Bostock 2007): *L. capillis*, a hair; -are, pertaining to. Inflorescence with filiform branches.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 40–50 cm long. Leaf-sheaths outer margin hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades 15–30 cm long, 2–4 mm wide. Leaf-blade surface hispid, sparsely hairy, hairy adaxially, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 15–40 cm long, 9–25 cm wide, 0.66 of culm length. Primary panicle branches ascending or spreading, 5–15 cm long. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 5–10 mm long.

Fertile Spikelets. Spikelets comprising 4–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate or ovate, laterally compressed, 2 mm long, 1 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet, thinner than fertile lemma. Lower glume ovate, 1.2 mm long, 0.9–1 length of upper glume, hyaline, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 1.2–1.4 mm long, 0.7–0.8 length of adjacent fertile lemma, hyaline, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 1.5 mm long, 1 mm wide, membranous, mid-green or grey, keeled, lightly keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea 0.5 length of lemma. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, oblong, 0.6 mm long.

Distribution (TDWG). Continent. Europe (*), North America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **North-central USA, Northeast USA, South-central USA, Southeastern USA, Mexico.** North Dakota, Nebraska, Oklahoma, South Dakota, Wisconsin. Connecticut, Indiana, Maine, Massachusetts, Michigan, Ohio, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, West Virginia. Texas. Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, District of Columbia. Central Mexico, Northeast Mexico.

Mexico State. Tamaulipas.

Eragrostis capitula M. Lazarides. *Austral. Syst. Bot.*, 10(1): 103 (1997).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Queensland, Cook Distr., Iron Range, 20 Jun 1948, *L.J. Brass 19270* (CANB; IT: BRI).

Illustrations (Books): No illustration found (BKS).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): *L. caput*, head; -ula, diminutive. Inflorescence capitate, that is a small head.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Cataphylls evident. Culms 15–30 cm long, 5-noded. Culm-internodes distally glabrous or pilose or hirsute, with tubercle-based hairs. Leaf-sheaths tight, scaberulous, hirsute, with simple hairs or tubercle-based hairs, outer margin hairy. Ligule a fringe of hairs, 0.2 mm long. Collar glabrous or pilose. Leaf-blades curled, 12–25 cm long, 2–4 mm wide. Leaf-blade surface scabrous, rough adaxially, hirsute, with simple hairs or tubercle-based hairs. Leaf-blade margins cartilaginous, scabrous. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle. Peduncle glabrous or pilose above. Panicle capitate, oblong or globose, 5–22 cm long, 5–10 cm wide. Primary panicle branches 0.5–1.5 cm long. Panicle branches hirsute, with simple hairs or tubercle-based hairs, glabrous in axils or bearded in axils, with prominent pulvini. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 9–11 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 5 mm long, 2 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes zig-zag, 0.2–0.3 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume linear or ovate, 1.3–2 mm long, 0.8–1 length of upper glume, membranous or cartilaginous, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex acute or acuminate. Upper glume linear or ovate, 1.3–2 mm long, 0.9–1 length of adjacent fertile lemma, membranous or cartilaginous, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex acute or acuminate.

Florets. Fertile lemma ovate, 1.8 mm long, 1 mm wide, membranous or cartilaginous, keeled, 3-veined, 0–3-veined. Lemma lateral veins midway between midvein and margin. Lemma apex obtuse or acute. Palea elliptic or ovate, membranous or coriaceous, 2-veined. Palea keels winged, narrowly winged. Palea apex obtuse, scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.3–0.4 mm long. Caryopsis with adherent pericarp or tardily free pericarp, ovoid, 0.5–0.6 mm long. Embryo 0.33–0.5 length of caryopsis. Disseminule comprising a caryopsis and palea.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland.

North.

Eragrostis capitulifera Chiov. *Miss. Biol. Borana, Racc. Bot., Angiosp.-Gymnosp.* 282 (1939).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ethiopia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Ethiopia, Sidamo, Javella: Cufodontis 484 (FI holo).

Illustrations (Books): S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (123, Fig 50).

Derivation (Clifford & Bostock 2007): L. caput, head; -ula, diminutive; fero, carry. Inflorescence densely congested.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 8–35 cm long. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs. Leaf-blades 4–16 cm long, 2 mm wide.

Inflorescence. Inflorescence a panicle, terminal or terminal and axillary. Axillary inflorescences similar to terminal. Panicle capitate, globose or ovate, 0.5–1.5 cm long. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, glabrous.

Fertile Spikelets. Spikelets comprising 4–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 3.5–6 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets falling as a whole.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.5–2 mm long, 1 length of upper glume, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5–2 mm long, 0.7–0.8 length of adjacent fertile lemma, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic or ovate, 2–2.5 mm long, membranous, pallid, keeled, 3-veined, 0–3-veined. Lemma apex obtuse or acute, mucicous or mucronate. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.3 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.4–0.6 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa, East tropical Africa. Ethiopia (inc. Eritrea). Kenya.

Eragrostis capuronii A. Camus. *Bull. Mus. Hist. Nat., Paris, Ser. 2*, xxix. 279 (1957).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Madagascar. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: "Sud de Madagascar: cap Sainte-Marie (extrême Sud) et ses abords, alt. 1–150 m.", *Humbert & Capuron 29300* (HT: P).

Illustrations (Books): J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969).

Derivation (Clifford & Bostock 2007): in honor of Reni Paul Raymond Capuron (1921–1971) French botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose, clumped loosely. Glands wart-like. Culms erect or geniculately ascending, 5–30 cm long. Culm-internodes distally glabrous. Lateral branches lacking or sparse. Leaf-sheaths eglandular or glandular, glabrous on surface or pilose. Ligule a fringe of hairs. Leaf-blades 1–3.5 cm long, 1–2 mm wide. Leaf-blade surface pilose, hairy abaxially or on both sides. Leaf-blade margins eglandular or glandular.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, linear or oblong, 2–12 cm long, 0.5–4 cm wide. Primary panicle branches appressed or ascending, 1-nate, 0.5–2.5 cm long, bearing spikelets almost to the base. Panicle axis eglandular or glandular. Panicle branches eglandular or glandular, glabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–1 mm long, eglandular or glandular.

Fertile Spikelets. Spikelets comprising 4–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 2–8 mm long, 0.8–1 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate or ovate, 0.6–0.8 mm long, 0.75 length of upper glume, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume lanceolate or ovate, 0.8–1.2 mm long, 0.75 length of adjacent fertile lemma, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile lemma ovate, 1–1.4 mm long, membranous, grey or purple, keeled, 3-veined, 0–3-veined. Lemma lateral veins distinct. Lemma apex obtuse. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

Eragrostis cassa M. Lazarides. *Austral. Syst. Bot.*, 10(1): 104 (1997).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia, Queensland, Lockerbie: *Brass 18614* (CANB holo, BRI).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (391, Fig 70), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 172, Fig.2 (1997)).

Derivation (Clifford & Bostock 2007): L. empty. Lower lemmas lacking flowers.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms 60–80 cm long, 5–6-noded. Culm-internodes terete or channelled. Lateral branches lacking or sparse. Leaf-sheaths longer than adjacent culm internode, wider than blade at the collar, glabrous on surface. Ligule a fringe of hairs, 0.2 mm long. Leaf-blades flat or involute or convolute, 1.5 mm wide, stiff. Leaf-blade surface scaberulous, rough adaxially, glabrous or pilose. Leaf-blade margins cartilaginous, scaberulous.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 16–32 cm long, 4–8 cm wide. Primary panicle branches 5–10 cm long. Panicle branches scabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 14–18 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 5–7 mm long, 3 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes curved, 0.1–0.2 mm long.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume ovate, 0.8–1 mm long, 0.75 length of upper glume, membranous or cartilaginous, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1–1.4 mm long, 0.5–0.7 length of adjacent fertile lemma, membranous or cartilaginous, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Basal sterile florets 2 or more, barren, persisting on inflorescence. Lemma of lower sterile floret similar to fertile lemma. Fertile lemma ovate or orbicular, dorsally convex along back, 2 mm long, cartilaginous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins midway between midvein and margin. Lemma surface smooth or granulose. Lemma apex obtuse. Palea ovate or orbicular, 2 -veined. Palea keels extending to apex, thickened (below), winged, narrowly winged, ciliolate, adorned all along. Palea apex obtuse, ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.4–0.5 mm long. Caryopsis with adherent pericarp, oblong or ovoid, stipitate, 0.6–0.7 mm long. Disseminule comprising a caryopsis and palea.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland. North.

Eragrostis castellaneana Buscalioni & Muschler. *Engl. Jahrb.* xlix. 459 (1913).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: In der Steppe zwischen dem Banguelo und dem Tanganyika-See, 1200 m.u M., 20 Apr 1910, *Helena, Duchess of Acosta s.n.*.

Illustrations (Books): R.M.Pohill, F.T.E.A., *Gramineae* (2(1974):190, Fig.60), G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):56, t. 23).

Derivation (Clifford & Bostock 2007): in honor of Frangois Castella (1850-) Swiss botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 60–120 cm long. Leaf-sheaths pilose. Ligule a fringe of hairs. Leaf-blades 10–45 cm long, 2–10 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, linear or oblong, 8–50 cm long. Panicle branches scaberulous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, scaberulous.

Fertile Spikelets. Spikelets comprising 4–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 2–3 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume ovate, 1.2–1.5 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume surface asperulous. Lower glume apex acute or acuminate. Upper glume ovate, 1.2–1.5 mm long, 1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume surface asperulous. Upper glume apex acute or acuminate.

Florets. Fertile lemma oblong, 1.3 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma surface scaberulous. Lemma apex obtuse, muticous or mucronate (rarely). Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.7–1 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.5 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa, South tropical Africa. Tanzania. Malawi, Mozambique, Zambia, Zimbabwe.

Eragrostis cataclasta Nicora. *Fl. Illustr. Entre Rios, Pt. 2, Gramin.*, 189 (1969).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Argentina. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Argentina: Entre Rmos: Holt, *R. Martmnez Crovetto 8819* (HT: BAB).

Illustrations (Books): A.Burkat, *Flora Ilustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (188, Fig. 66), B.Rosengurt, *Gramineas Uruguayas I* (1970) (254 Fig. 104).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 25–90 cm long. Ligule a fringe of hairs. Leaf-blades 10–20 cm long, 2–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle contracted, lanceolate, 3–15 cm long, 1–2.5 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, eglandular.

Fertile Spikelets. Spikelets comprising 6–24 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 3–10 mm long, 0.8–2 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.8–1.8 mm long, 0.66–0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.2–2.2 mm long, 0.75–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5–2 mm long, membranous, glaucous or grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2. Caryopsis with adherent pericarp, oblong.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil, Southern South America. Brazil West Central, Brazil Northeast, Brazil Southeast, Brazil South. Argentina Northeast, Paraguay, Uruguay.

TDWG4. Minas Gerais, Rio de Janeiro, Espirito Santo, Catarina, Rio Grande do Sul. Buenos Aires, Corrientes, Entre Rios.

Eragrostis cenolepis W. D. Clayton. *Kew Bull.* xx. 266 (1966).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Guinea. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *Adam 12754*, Guinee (K).

Illustrations (Journals): *Kew Bulletin* (20:268 Fig.4 (1966)).

Derivation (Clifford & Bostock 2007): Gk. kenos, empty; lepis, scale. The proximal lemmas of the spikelets are sterile.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 50–100 cm long, 2–3 -noded. Ligule a fringe of hairs. Leaf-blades involute or convolute, 15–30 cm long, 1–2.5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, effuse, 10–20 cm long, 3–7 cm wide. Panicle branches capillary, flexuous, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 3–15 mm long.

Fertile Spikelets. Spikelets comprising 2 basal sterile florets, 5–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate or obovate, laterally compressed, 3–4 mm long, 2–3 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.4 mm long, 0.8–0.9 length of upper glume, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.6 mm long, 0.7–0.8 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Basal sterile florets 2 or more, similar, barren, without significant palea, separately deciduous. Lemma of lower sterile floret similar to upper glume. Fertile florets divergent, free at tip. Fertile lemma ovate, 2.2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.2 mm long. Caryopsis with adherent pericarp, oblong, isodiametric, 0.7 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, West-central tropical Africa. Guinea, Nigeria, Sierre Leone.

Eragrostis chabouisii Bosser. *Adansonia, n. s.*, viii. 519 (1968).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Madagascar. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Madagascar Domaine du Sud, Andavadoaka; mars 1964., *Chabouis s.n.* (HT: P).

Illustrations (Books): J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (145, Fig 47).

Derivation (Clifford & Bostock 2007): in honor of F. Chabouis (fl. 1964) French botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose, clumped loosely. Butt sheaths pubescent. Culms erect or geniculately ascending, 15–30 cm long. Culm-internodes distally glabrous. Lateral branches lacking or

sparse. Leaf-sheaths glabrous on surface, outer margin hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades 2–5 cm long, 2–3 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, 5–18 cm long, 2–3 cm wide. Primary panicle branches ascending, 1 -nate, 1–2.5 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–7 mm long.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with a barren rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 2.5–3 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.7–1 mm long, 0.75 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1–1.3 mm long, 0.75 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex obtuse. Palea 1 length of lemma. Palea keels scaberulous.

Flower and Fruit. Anthers 3. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

Eragrostis chalarothyrsos C. E. Hubbard. *Kew Bull.* 310 (1936).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Sierra Leone. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Glanville 240*, Sierra Leone (K).

Illustrations (Books): R.M.Phill, F.T.E.A., *Gramineae* (2(1974):193, Fig.61).

Derivation (Clifford & Bostock 2007): Gk. chalaros, slack; thyrsos, ornamental wand. Inflorescence an open panicle.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes absent or short. Culms erect, 60–100 cm long. Ligule a fringe of hairs. Leaf-blades flat or convolute, 10–25 cm long, 2–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, 6–20 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 9–24 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 4–12 mm long, (3–)3.5–5.5 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.5–3 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5–3 mm long, 0.8–1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic or ovate, (2–)2.5–3 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1–1.5 mm long. Caryopsis with adherent pericarp, ellipsoid, 1 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa. Ghana, Sierra Leone. Central African Republic. Ethiopia (inc. Eritrea). Kenya, Uganda.

Eragrostis chapelieri (Kunth) Nees. *Fl. Afr. Austr.* 392 (1841).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Madagascar. **Basionym or Replaced Name:** *Poa chapelierii* Kunth, *Revis. Gramin.* 2: 543, t. 186 (1832)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Africa: Cresit in Madagascaria. ...qui l'a decouverte dans l'île de Madagascar, *M. Chapelier*.

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):58, t. 25, 1 plate, 1 spikelet drawing), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (29 & 149, Fig 6 & 49).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): in honor of Louis Armand Chapelier (1779–1800) French botanist who collected in Madagascar.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–100 cm long. Ligule a fringe of hairs. Leaf-blades flat or conduplicate, 20–40 cm long, 2–5 mm wide. Leaf-blade apex attenuate, filiform.

Inflorescence. Inflorescence a panicle. Panicle spiciform, linear or oblong, continuous or interrupted, 4–22 cm long, 1–3 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 15–50 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 6–24 mm long, 2–2.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.4–2.3 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.4–2.3 mm long, 0.7–0.9 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume apex acute.

Florets. Fertile florets divergent. Fertile lemma ovate, 1.5–3 mm long, membranous, dark brown or red, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute or acuminate. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2, 0.3–0.7 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.5–0.6 mm long.

$N = 10$ (1 ref TROPICOS). $2n = 20$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean. Congo, Rwanda, DRC. Ethiopia (inc. Eritrea), Sudan. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Limpopo, Mpumalanga, Swaziland, Kwazulu-Natal. Madagascar.

Eragrostis chiquitaniensis T.J. Killeen. *Ann. Missouri Bot. Gard.*, 77(1): 153 (1990).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Bolivia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *T. Killeen 1728*, 1 Feb 1986, Bolivia: Santa Cruz: Estancia San Ignacio, 25 km N of San Josi de Chiquitos, Prva. Chiquitos, 17:35'S 60:45'W, 320 m (ISC; IT: CTES, F, GA, LPB, MO, NY, SI, TEX, US-3181404).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. -ensis*, denoting origin. From Chiquitos Province, Bolivia.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms erect, 60–70 cm long. Lateral branches ample. Leaves cauline. Ligule a fringe of hairs. Leaf-blades 15–25 cm long, 4–7 mm wide. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, 16–27 cm long, 0.4–1 cm wide. Primary panicle branches ascending, simple. Panicle branches stiff. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, glandular.

Fertile Spikelets. Spikelets comprising 4–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–6 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.4–2.2 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 1.4–2.2 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Southern South America. Bolivia. Paraguay.

Eragrostis cilianensis (Bellardi) Janchen. *Mitt. Naturw. Univ. Wien* 5(9):110 (1907).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983), T.Koyama, *Grasses of Japan and its neighboring regions* (1987), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Italy. **Basionym or Replaced Name:** *Poa cilianensis* Bellardi, *Fl. Pedem.* 2: 246 (1785). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: Bellardi s.n., Italy: *Ciliani* (TO-8242 (photo, K)). LT designated by Vignolo, *Malpighia* 18: 380 (1904).

Illustrations (Books): R.M.Phillips, F.T.E.A., *Gramineae* (2(1974):233, Fig. 65), G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):136, T. 41, 1 plate, 1 spikelet drawing), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (158, Fig. 126), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (145, Fig. 47), N.Feinbrun-Dothan, *Flora Palaestina* 4 (1986) (Pl. 379 & 380 as ssp. *cilianensis* & ssp. *starosselskyi*), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (123, Fig. 50), L.Boulos, *Flora of Egypt* 4 (2005) (260, Pl. 77), T.A.Cope, in M.Thulin, *Poaceae* (Gramineae). *Flora of Somalia* (1995) (182, Fig. 94), N.L.Bor, *Gramineae* in K.H.Rechinger, *Flora Iranica*. No. 70/30 (1970) (Tab. 59), N.L.Bor, *Gramineae* in *Flora of Iraq* (1968) (441, Pl. 167), C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (394), C-C Hsu, *Taiwan Grasses* (1975), K.M.Matthew, *Flora Palni Hills* (1996) (822, Pl. 822), T.A.Cope, *Flora of Pakistan* 143: *Poaceae* (1982) (94, Fig. 11), H.J.Noltie, *The Grasses of Bhutan* (2000) (763, Fig. 50), H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005) (69, Fig. 61), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (366, Fig. 294), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (120, Pl. 34), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler, *Grasses of New South Wales*, 4th edn (2008) (250), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (171, Fig. 26), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (374, Fig. 67 & 400, Fig. 71), D.Sharp & B.K.Simon, *AusGrass*. *Grasses of Australia*. CD-Rom Version 1.0. (2002), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003), F.W.Gould, *The Grasses of Texas* (1975) (200, Fig. 102), A.S.Hitchcock, *Manual of the Grasses of the West Indies* (1936) (38, Fig. 16), S.A.Renvoize, *Gramineas de Bolivia* (1998) (311, Fig. 65), E.G.Nicora, *Los Generos de Gramineas de America Austral* (1987) (378, Fig. 132), A.Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, *Gramineas* (1969) (177, Fig. 61), W.Burger, *Flora Costaricensis* 15, *Gramineae: Fieldiana Botany New Series* 4 (1980) (211, Fig. 70), A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (336, Fig. 86), M.N.Correa, *Flora Patagonica* Parte III, *Gramineae* (1978) (481, Fig. 323), B.Rosengurt, *Gramineas Uruguayas I* (1970) (264, Fig. 108), S-L Chen et al, *Flora of China*, *Illustrations, Poaceae* (2007) (Fig. 854).

Illustrations (Journals): *Sida* (21: 1377, Fig.3A-C (2005)), *Austr. Syst. Bot.* (10: 175, Fig.5 (1997)), *Ann. Missouri Bot. Gard.* (94: 763 fig 11 (2007)).

Images: D.Sharp & B.K.Simon, *AusGrass*. *Grasses of Australia*. CD-Rom Version 1.0. (2002);, F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999), K.Domin, *Bibliotheca Botanica* 85 (1915) (397, Fig.92 as *E.megastachya*).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From Cigliano, Italy.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Glands wart-like (on keel). Culms erect or geniculately ascending, 10–90 cm long. Ligule a fringe of hairs. Leaf-blades 5–15 cm long, 2–8 mm wide. Leaf-blade margins glandular or eglandular.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, ovate, dense or loose, 4–30 cm long. Panicle branches stiff, glandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong, glandular.

Fertile Spikelets. Spikelets comprising 5–60 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 3–20 mm long, 2–4 mm wide, breaking up at maturity, rachilla persistent, retaining paleas, tough throughout or fragile above, with the distal florets falling as a whole.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.5–2.2 mm long, 1 length of upper glume, eglandular or glandular (on keel), 1-keeled, 1–3 -veined. Lower glume apex acute. Upper glume ovate, 1.5–2.2 mm long, 0.7–0.8 length of adjacent fertile lemma, eglandular or glandular, 1-keeled, 1–3 -veined. Upper glume apex acute.

Florets. Fertile lemma ovate or orbicular, (1.3–)2–2.8 mm long, chartaceous, yellow or grey, glandular on veins (keel), keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex emarginate or obtuse. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.3 mm long. Caryopsis with adherent pericarp, orbicular, 0.5(–0.7) mm long, dark brown or red.

N = 10 (4 refs TROPICOS), or 20 (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe, Africa, Temperate Asia, Tropical Asia, Australasia (*), Pacific, North America, South America.

Region. Northern Europe (*), Southwestern Europe, Southeastern Europe, Eastern Europe, Middle Europe.

Country /Province /State. : Great Britain (*). : Czechoslovakia, Germany, Hungary, Switzerland. : Baleares, Corsica, France, Portugal, Sardinia, Spain, Azores. : Albania, Bulgaria, Greece, Italy, Crete, Romania, Sicily, Turkey Europe, Yugoslavia. Krym, Northwest European Russia, Ukraine. **Northern Africa, Macaronesia, West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Middle Atlantic ocean, Western Indian ocean.** Algeria, Egypt, Libya, Morocco, Tunisia. Azores, Madeira. Burkina, Ivory Coast, Mali, Nigeria, Senegal, Niger. Central African Republic, Rwanda, DRC. Eritrea, Ethiopia (inc. Eritrea), Socotra, Somalia, Sudan. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Lesotho, Northern Cape, Western Cape, Eastern Cape. St Helena. Mauritius (*), Madagascar (*), Rodrigues (*). **Middle Asia, Caucasus, Western Asia, Arabian Peninsula, China, Mongolia, Eastern Asia.** Kazakhstan, Turkmenistan, Tadjikistan, Uzbekistan. Iran, Iraq. Gulf States, Oman. China South Central, Hainan, Inner Mongolia, Manchuria, China North-Central, Qinghai, China Southeast, Xinjiang. Japan, Nansei-Shoto, Taiwan. Japan Honshu, or Shikoku, or Kyushu. **Indian Subcontinent, Indo-China, Malesia, Papuasia.** Assam, India, Pakistan, Sri Lanka, West Himalaya. Andaman Is, Myanmar, Nicobar Is, Thailand, Vietnam. Java, Lesser Sunda Is, Moluccas, Philippines, Sulawesi. New Guinea West Papua (Irian Jaya). New Guinea. **Australia, New Zealand.** Western Australia (*), Northern Territory (*), South Australia (*), Queensland (*), New South Wales (*), A.C.T. (*), Victoria (*), Tasmania (*), Lord Howe-Norfolk Is (*). New Zealand North I. **Southwestern Pacific, North-central Pacific.** New Caledonia (*). Hawaii (*). **Western Canada, Eastern Canada, Northwest USA, North-central USA, Northeast USA, Southwestern USA, South-central USA, Southeastern USA, Mexico.** Alberta, British Columbia, Manitoba, Saskatchewan. Nova Scotia, Ontario, Quebec. Colorado, Idaho, Montana, Oregon, Washington, Wyoming. Illinois, Iowa, Kansas, Minnesota, Missouri, North Dakota, Nebraska, Oklahoma, South Dakota, Wisconsin. Connecticut, Indiana, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia. Arizona, California, Nevada, Utah. New Mexico, Texas. Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, District of Columbia. Central Mexico, Northeast Mexico, Gulf (Mexico), Northwest Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica, Caribbean, Northern South America, Western South America, Brazil, Southern South America.** Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua. Bermuda, Cuba. Venezuela. Bolivia, Colombia, Ecuador, Galapagos, Peru. Brazil West Central, Brazil Northeast, Brazil Southeast, Brazil South. Argentina Northeast, Argentina South, Argentina Northwest, Paraguay, Uruguay.

TDWG4. Beijing, Shaanxi, Shandong. Anhui, Fujian, Henan, Zhejiang. Guizhou, Hubei, Yunnan. Bhutan. Bihar, Gujarat, Karnataka, Kerala. Maharashtra, Punjab, Rajasthan, Tamilnadu, Uttah Pradesh. Himachal Pradesh. Kimberley, Ereman, South-West. Darwin & Gulf, Central Australia. NW & Lake Eyre, Southern. North, Central, South East, Inland. Coast, Tablelands, Western Slopes, Western Plains. Catamarca, Jujuy (*), La Rioja, Mendoza, Salta, Santiago del Estero, San Juan, San Luis, Tucuman. Buenos Aires, Chaco, Cordoba, Corrientes, Distrito Federal, Entre Rios, Formosa, La Pampa, Santa Fe. Chubut, Neuquén, Río Negro. Puebla. Coahuila, Chihuahua, Durango, San Luis Potosi, Tamaulipas, Zacatecas. Veracruz. Baja California Sur. Guerrero, Jalisco, Oaxaca. Campeche, Chiapas, Yucatan.

Eragrostis ciliaris (L.) R. Br. *Tuckey, Congo*, 478 (1818).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Jamaica. **Basionym or Replaced Name:** *Poa ciliaris* L., *Syst. Nat. (ed. 10)* 2: 875 (1759). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: LT: *Browne s.n.*, Jamaica (LINN-87.66). LT designated by Hitchcock, *Contr. U.S. Natl. Herb.* 12: 121 (1908).

Illustrations (Books): R.M.Phillip, F.T.E.A., *Gramineae* (2(1974):190, Fig.60), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (140&180, Fig 108,153&154), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (115, Fig 48), L.Boulos, *Flora of Egypt* 4 (2005) (254, Pl. 75), T.A.Cope, in M.Thulin, *Poaceae* (Gramineae). *Flora of Somalia* (1995), C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (396), C-C

Hsu, *Taiwan Grasses* (1975), M.E. Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (73 as vars. *ciliaris* & *laxa*), A.S. Hitchcock, *Manual of the Grasses of the West Indies* (1936) (35, Fig. 14), S.A. Renvoize, *Gramineas de Bolivia* (1998) (313, Fig 66), S.A. Renvoize, *The Grasses of Bahia*, 1984 (65, Fig. 23), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (328, Fig. 75), W. Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (213, Fig 71), E. Judziewicz, *Flora of the Guianas*, 187. *Poaceae* (1990) (208, Fig 34), S-L Chen et al, *Flora of China*, Illustrations, *Poaceae* (2007) (Fig. 679).

Illustrations (Journals): *Sida* (21: 1377, Fig. 3D-E as var. *ciliaris*, Fig. 3G, as var. *laxa* (2005)), *Ann. Missouri Bot. Gard.* (94: 763 fig 11 (2007)).

Images: F. van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. cilium, eyelid; -are, pertaining to. Glumes or lemmas ciliate on nerves or margins.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 5–60 cm long. Ligule a fringe of hairs. Leaf-blades 2–12 cm long, 1–5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle spiciform, linear or oblong, continuous or interrupted, 1–20 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 2–4.5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.7–1.2 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 0.7–1.2 mm long, 0.7–0.8 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic or oblong, 0.9–1.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein ciliolate (at least a few hairs on upper lemmas). Lemma apex obtuse, mucicous or mucronate (obscurely). Palea keels tuberculate, ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2, 0.2 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.3–0.5 mm long.

N = 10 (2 refs TROPICOS), or 20 (2 refs TROPICOS).

Distribution (TDWG). Continent. Africa, Temperate Asia, Tropical Asia, Pacific, North America, South America.

Country /Province /State. Northern Africa, Macaronesia, West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean. Egypt, Libya. Cape Verde. Benin, Burkina, Gambia, Ghana, Guinea, Ivory Coast, Liberia, Mali, Nigeria, Senegal, Sierra Leone, Togo. Central African Republic, Cameroon, Equatorial Guinea, Rwanda, DRC. Eritrea, Ethiopia (inc. Eritrea), Socotra, Somalia, Sudan. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Botswana, Limpopo, Gauteng, Mpumalanga, Swaziland, KwaZulu-Natal, Eastern Cape. Mauritius, Madagascar, Seychelles. Western Asia, Arabian Peninsula, China, Eastern Asia. Iran. Gulf States, Oman, Saudi Arabia. Taiwan. Indian Subcontinent, Indo-China, Malesia, Papuasias. Bangladesh, India, Pakistan, Sri Lanka. Thailand. Philippines. Northwestern Pacific, North-central Pacific. New Caledonia. Caroline Is, Marianas, Marshall Is. Hawaii. South-central USA, Southeastern USA, Mexico. Texas. Alabama, Florida, Louisiana, Mississippi. Central Mexico, Northeast Mexico, Gulf (Mexico), Northwest Mexico, Southwest Mexico, Southeast Mexico. Mesoamerica, Caribbean, Northern South America, Western South America, Brazil, Southern South America. Belize, Costa Rica, El Salvador, Guatemala, Honduras, Panama. Aruba, Bahamas, Bermuda, Cayman Is, Cuba, Dominican Republic, Haiti, Jamaica, Leeward Is, Windward Islands, Puerto Rico, Trinidad-Tobago, Venezuelan and Netherlands Antilles. French Guiana, Guyana, Surinam, Venezuela. Bolivia, Colombia, Ecuador, Galapagos, Peru. Brazil West Central, Brazil Northeast, Brazil North, Brazil Southeast, Brazil South. Paraguay.

TDWG4. Andhra Pradesh, Daman, Kerala. Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamilnadu, Uttar Pradesh. Salta. Misiones. Distrito Federal, Morelos, Puebla. Aguascalientes, Chihuahua, Queretaro, San Luis Potosi, Tamaulipas. Veracruz. Baja California, Baja California Sur, Sinaloa, Sonora. Colima, Guerrero, Jalisco, Michoacan, Nayarit, Oaxaca. Campeche, Chiapas, Quintana Roo, Tabasco, Yucatan.

Eragrostis ciliata (Roxb.) Nees. *Agrost. Bras.* 512 (1829).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (*Poaceae*) (2006), N.L. Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from SE Asia. **Basionym or Replaced Name:** *Poa ciliata* Roxb., *Fl. Ind.*, ed. 1820 1: 336 (1820)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: India Orientalis, Heyne Benjamin 5015 (type BM).

Recent Synonyms: *Eragrostis alopecuroides* Balansa, Morot, *Journ. de Bot.* 4: 168 (1890).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. cilium*, eyelid; -ata, possessing. Plant hairy overall or in part.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms erect or geniculately ascending, 20–75 cm long. Culm-internodes distally glabrous. Lateral branches lacking or sparse. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades linear or lanceolate, flat or convolute, 520 cm long, 2.5–4 mm wide. Leaf-blade midrib prominent beneath. Leaf-blade venation distinct, with 4–6 secondary veins. Leaf-blade surface smooth, glabrous. Leaf-blade apex acuminate or attenuate.

Inflorescence. Inflorescence a panicle. Panicle spiciform, linear or oblong, 2–8 cm long, 0.8 cm wide. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 2.5–7 mm long, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.3–2 mm long, 0.75–0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume margins ciliate. Lower glume apex acute or acuminate. Upper glume lanceolate or ovate, 1.5–2.5 mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume margins ciliate. Upper glume apex acute or acuminate.

Florets. Fertile lemma elliptic or oblong or ovate, 2–2.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct or prominent. Lemma surface asperulous or scaberulous. Lemma margins ciliate. Lemma apex cuspidate. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ellipsoid or ovoid or orbicular, 0.5 mm long.

Distribution (TDWG), Continent. Temperate Asia, Tropical Asia.

Country /Province /State. China. Hainan. **Indian Subcontinent, Indo-China.** India, Sri Lanka. Myanmar, Thailand, Vietnam.

TDWG4. Bihar. Tamilnadu.

Eragrostis cimicina Launert. *Prodr. Fl. Sudwestafr.*, 160. *Gramin.*, Lief. 34, 221, 105 (1970).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Angola. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Angola: Vale do rio Tiengo, Cuils, 9 Mar 1906, *Gossweiler 2589* (HT: COI).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. cimex*, bug; -ina, resemblance. Mature spikelets bear a fanciful resemblance to a small bug.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous to pubescent, persistent and investing base of culm, with fibrous dead sheaths. Culms erect, 80–150 cm long, 1–4 -noded. Leaf-sheaths glabrous on surface or pilose. Ligule a fringe of hairs. Leaf-blades 8–25 cm long, 2–6 mm wide. Leaf-blade surface glabrous or hispid. Leaf-blade margins scaberulous.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, 11–25 cm long, 4–10 cm wide. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 3–10 mm long.

Fertile Spikelets. Spikelets comprising 5–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 3–6 mm long, 3–5 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.6–2.2 mm long, 0.8–0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse or acute. Upper glume ovate, 2–2.4 mm long, 0.8–0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse or acute.

Florets. Fertile lemma ovate, 2.4–3 mm long, membranous, shiny, keeled, 3 -veined, 0–3 -veined. Lemma midvein ciliate, hairy below. Lemma lateral veins distinct. Lemma apex obtuse. Palea obovate, 2.2–2.8 mm

long, cartilaginous. Palea keels approximate, wingless, scaberulous, eciliate. Palea apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 2 mm long. Caryopsis with adherent pericarp, oblong, sulcate on hilar side, 1.4–2 mm long.

Distribution (TDWG), Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa. Angola, Zambia, Zimbabwe. Namibia, Botswana.

Eragrostis coarctata Stapf. *Hook. f. Fl. Brit. Ind.* vii. 313. (1896).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.L.Bor, *Grasses of Burma*, Ceylon, India and Pakistan (1960).

TYPE from India & Myanmar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: From the upper Gangetic Plain, Moradabad, Thomson to Sikkim, Behar, Chittagong, Arracan and Burma, Central Provinces & Chota Nagpore, *Clarke s.n.*

Illustrations (Books): H.J.Noltie, *The Grasses of Bhutan* (2000) (661, Fig. 34).

Derivation (Clifford & Bostock 2007): *L. coarcto*, compress; -ata, possessing; Panicles spiculate-spiciform.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Butt sheaths persistent and investing base of culm, with compacted dead sheaths. Culms geniculately ascending, 8–60 cm long. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs. Leaf-blades flat or convolute, 4–9 cm long, 3–6 mm wide, glaucous. Leaf-blade apex hardened.

Inflorescence. Inflorescence a panicle. Panicle contracted or spiciform, oblong, continuous or interrupted, 2–7 cm long. Panicle axis scaberulous. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 2–3 mm long, 1.5 mm wide, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.25–1.5 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.25–1.5 mm long, 0.75 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5–2 mm long, chartaceous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma margins ciliate, hairy all along or below or at base. Lemma apex obtuse. Palea 1 length of lemma. Palea keels scaberulous, ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.5 mm long. Caryopsis with adherent pericarp, ellipsoid or ovoid, 0.5 mm long, light brown or dark brown.

Distribution (TDWG), Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent, Indo-China. Assam, Bangladesh, Eastern Himalaya. Myanmar.

TDWG4. Darjeeling, Bhutan, Sikkim. Andhra Pradesh, Bihar, Karnataka. Madhya Pradesh, Orissa, Rajasthan, Tamilnadu, Uttah Pradesh, West Bengal.

Eragrostis collina Trin. *Mem. Acad. Petersb. VI. Math. Phys. Nat.* 1:413 (1830).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Russia: Caucasus, 500–1000 m.,

Illustrations (Books): N.N.Tsvelev, *Grasses of the Soviet Union* (1983) (945 (625), Pl.13), N.L.Bor, *Gramineae* in K.H.Rechinger, *Flora Iranica*. No. 70/30 (1970) (Tab. 51), N.L.Bor, *Gramineae* in *Flora of Iraq* (1968) (443, Pl. 168).

Derivation (Clifford & Bostock 2007): *L. collis*, a hill; -ina, belonging to. Mountain species.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes elongated. Butt sheaths coriaceous, yellow, glabrous, persistent and investing base of culm. Culms erect, robust, 60–125 cm long. Lateral branches lacking. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs. Leaf-blades 20–30 cm long, 3–6 mm wide. Leaf-blade surface smooth or scaberulous. Leaf-blade margins scabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 15–30 cm long, 5–10 cm wide, contracted about secondary branches. Primary panicle branches spreading, profusely divided. Panicle branches capillary, scaberulous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 3–4 mm long, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1–1.5 mm long, 0.66–0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume oblong, 1.5–2 mm long, 0.75–0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile lemma ovate, 2–2.2 mm long, membranous, mid-green or dark green, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea 1.5 mm long. Palea keels eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1–1.5 mm long. Caryopsis with adherent pericarp, ovoid or orbicular, 1.2 mm long, dark brown.

Distribution (TDWG). Continent. Europe, Temperate Asia.

Region. Eastern Europe.

Country /Province /State. East European Russia, South European Russia. Siberia, **Middle Asia, Caucasus, Western Asia, China, Russia.** Kazakhstan. Iran, Iraq, Turkey. Xinjiang.

TDWG4.

Eragrostis comptonii De Winter. *Bothalia* 20(2): 208 (1990).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Swaziland. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Inbabane: Compton 16766 (PRE holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Robert Harold Compton (1886–1979) South African botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Cataphylls evident. Rhizomes short, knotty. Culms erect, 50–110 cm long, 1–1.5 mm diam., wiry, 4–9 -noded. Culm-internodes 10 cm long, distally glabrous. Leaf-sheaths longer than adjacent culm internode. Ligule a fringe of hairs. Leaf-blades convolute, 30–50 cm long, 2–4 mm wide. Leaf-blade venation prominent, with 9–11 secondary veins. Leaf-blade surface scaberulous, rough adaxially. Leaf-blade apex filiform.

Inflorescence. Inflorescence a panicle. Panicle open, ovate. Primary panicle branches spreading. Panicle axis smooth or scaberulous. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 3–8 mm long.

Fertile Spikelets. Spikelets comprising 2–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 2–5 mm long, 1–1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, tough throughout or fragile above, with the distal florets disarticulating separately or disarticulating into irregular segments.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.5 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5 mm long, 0.8–1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla. Fertile lemma ovate, 1.25–1.5 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, 0.3 mm long, truncate. Anthers 3, 1 mm long. Caryopsis with adherent pericarp, ovoid, 0.8–1 mm long, dark brown. Embryo 0.5 length of caryopsis. Hilum punctiform.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Swaziland.

Eragrostis concinna (R.Br.) Steud. *Syn. Pl. Gram.* 279. (1854).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Poa concinna* R. Br., *Prodr.* 180 (1810). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Port Jackson: Hunter's River vel Coal River: inclusis ripis aestuarii..

Illustrations (Books): G.Hegi, *Flora von Mitteleuropa* 1 (1909) (as *Poa concinna*), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (125, Pl 36), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (374 & 400, Fig 67 & 71), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 175, Fig.5 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): *L. elegant*. Panicles or habit attractive.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 40–80 cm long. Leaves mostly basal. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades convolute, 6–20 cm long, 1–4 mm wide, stiff. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate or ovate, 15–30 cm long. Primary panicle branches distant, simple, 2–8 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 22–50 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 12–25 mm long, 3.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2 mm long, 0.7–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 2.5 mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 3.25 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex obtuse. Palea 0.5 length of lemma. Palea keels ciliolate. Palea apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.2 mm long. Caryopsis with adherent pericarp, orbicular, isodiametric, 0.5 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory, Queensland. Darwin & Gulf. North.

Eragrostis condensata (Presl.) Steud. *Syn. Pl. Gram.* 278. (1854).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ecuador. **Basionym or Replaced Name:** *Megastachya condensata* J. Presl, *Reliq. Haenk.* 1(4–5): 284 (1830)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Haenke s.n.*, Ecuador (PR; IT: US-78689, W).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. condense*, press close together. Spikelets crowded in the inflorescence.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 45–200 cm long. Leaf-sheaths outer margin hairy. Ligule a fringe of hairs. Collar pilose. Leaf-blades flat or involute, 20–50 cm long, 3–10 mm wide. Leaf-blade surface scaberulous, rough adaxially, pilose, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence a panicle. Peduncle pilose above. Panicle spiciform, linear, continuous or interrupted, 18–65 cm long, 0.5–1.8 cm wide. Primary panicle branches appressed, 0.1–5.5 cm long. Panicle axis scaberulous, with scattered hairs or glabrous. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.3–2.5 mm long, scaberulous.

Fertile Spikelets. Spikelets comprising 4–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate or oblong, laterally compressed, 3.4–7.3 mm long, 1.2–2.6 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes glabrous or pilose.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.8 mm long, 0.9–1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein smooth or scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.2–1.5 mm long, 0.66–0.8

length of adjacent fertile lemma, membranous, 1-keeled, 1–3 -veined. Upper glume primary vein smooth or scaberulous. Upper glume lateral veins absent or obscure. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.7–2.9 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins obscure. Lemma apex acute. Palea bowed outwards, 1.6–2.7 mm long. Palea keels scaberulous. Palea apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.5–1.4 mm long, yellow or purple. Caryopsis with adherent pericarp, obovoid, 0.5–0.9 mm long, smooth or striate or reticulate.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America. Ecuador.

Eragrostis conertii W. Lobin. *Willdenowia*, 16(1): 143 (1986).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Cape Verde Is. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Cape Verde Is., Antao: Lobin 2519 (FR holo, B, GOET).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): In honor of Hans Joachim Conert (1929-) German botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms geniculately ascending, 25–50 cm long, 1.8–2 mm diam., 6–9 -noded, with 0.5 of their length below uppermost node. Culm-internodes terete, striate, distally glabrous. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheaths with 0.33 of their length closed, longer than adjacent culm internode, pilose, outer margin hairy. Ligule a fringe of hairs, 4 mm long. Leaf-blades involute, 1.5–2 cm long, 4 mm wide. Leaf-blade surface glabrous, hairless except near base. Leaf-blade apex abruptly acute.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear or lanceolate, 11–15 cm long, 1–1.5 cm wide. Primary panicle branches appressed, 1 -nate, 1–2.5 cm long. Panicle axis glabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 4–12 mm long, 1.5–1.8 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 1.4 mm long, 0.9 length of upper glume, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.6 mm long, 0.9 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.8 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins prominent. Lemma apex acuminate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.3–0.4 mm long. Ovary glabrous. Caryopsis with adherent pericarp, ellipsoid, 0.7–0.8 mm long, light brown. Embryo 0.5–0.66 length of caryopsis. Hilum elliptic.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Macaronesia. Cape Verde.

Eragrostis confertiflora J. M. Black. *Trans. & Proc. Roy. Soc. S. Austral.*iv. 136. (1931).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Eragrostis interrupta* var. *densiflora* J.M. Black, *Trans. & Proc. Roy. Soc. South Australia* 48: 253 (1924). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Toorawatchy Waterhole, between Cordillo Downs and Innamincka, *J.B. Cleland s.n.*

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (367, Fig 295).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): L. confertio, cram together; flos, flower. Inflorescence branches densely congested.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 22–30 cm long, 1–2 -noded. Ligule a fringe of hairs. Leaf-blades 6–12 cm long, 1–2 mm wide.

Inflorescence. Inflorescence a panicle. Panicle contracted or spiciform, linear or lanceolate, 6–17 cm long, 0.5–1 cm wide. Primary panicle branches appressed, 5–25 cm long, bearing spikelets almost to the base. Spikelets solitary. Fertile spikelets sessile or pedicelled. Pedicels absent or present.

Fertile Spikelets. Spikelets comprising 5–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 2–3 mm long, 1 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.6 mm long, 0.7–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein smooth. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 0.75 mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein smooth. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma lanceolate, 1 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels smooth. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. **Australia.** Western Australia, Northern Territory, South Australia, Queensland. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre. North, Inland.

Eragrostis congesta Oliver. *Trans. Linn. Soc.* xxix. 175 (1875).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Hab. Boggy ground near Kazech, 5 degrees S. lat, *Grant 653*.

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):58, t. 25), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (138, Fig 106).

Derivation (Clifford & Bostock 2007): L. crowded together. Spikelets crowded in inflorescence.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–110 cm long. Ligule a fringe of hairs. Leaf-blades 10–20 cm long, 3–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle glomerate (2–8 globular or ovoid clusters 0.5–2cm diam), linear or oblong, interrupted or continuous, 6–30 cm long. Panicle branches glabrous or pilose. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, villous.

Fertile Spikelets. Spikelets comprising 4–22 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–10 mm long, 1.2–2 mm wide, breaking up at maturity, rachilla persistent, retaining paleas, fragile above, with the distal florets falling as a whole.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.2–2 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 1.2–2 mm long, 0.8–1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 1.5–2 mm long, membranous, grey or purple, keeled, 3 -veined, 0–3 -veined. Lemma apex acuminate, muticous or mucronate. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.3–0.4 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.5 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. **West-central tropical Africa, East tropical Africa, South tropical Africa, Southern Africa.** Burundi, Congo, DRC. Kenya, Tanzania, Uganda. Malawi, Zambia, Zimbabwe. Kwazulu-Natal.

Eragrostis contrerasii R.W. Pohl. *Iowa State J. Res.*, 51(3): 323 (1977).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Guatemala. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Contreras 3484*, 8 March 1962, Guatemala (F; IT: US-2486077, US-2454156).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Elias Contreras (fl. 1962) who collected in Guatemala.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Stolons present. Culms erect or geniculately ascending or decumbent, 7–30 cm long, rooting from lower nodes. Culm-nodes glabrous or pubescent. Leaves cauline. Leaf-sheaths keeled, glabrous on surface to pubescent. Leaf-sheath oral hairs pubescent. Ligule a fringe of hairs, 0.5–0.8 mm long. Leaf-blades 2–5 cm long, 1.5–3.5 mm wide. Leaf-blade surface pubescent, hairy adaxially or on both sides. Dioecious.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 3.5–8 cm long, 2.5–4 cm wide. Primary panicle branches bearing spikelets almost to the base. Panicle branches glabrous or pubescent, glabrous in axils or bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 9–25 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 8–22 mm long, 1.2–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.6–1.1 mm long, 0.33–0.5 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.8–2.1 mm long, 0.9 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets female. Fertile lemma ovate, 2–2.4 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma surface glabrous or puberulous. Lemma apex acute. Palea 0.5 length of lemma. Palea surface scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.1–1.5 mm long, eventually exserted. Caryopsis with adherent pericarp, ellipsoid or oblong, obtuse.

Male inflorescence similar to female. Male spikelets resembling female.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. Mexico. Gulf (Mexico), Southeast Mexico. **Mesoamerica.** Belize, Guatemala. Veracruz. Campeche, Tabasco.

Eragrostis crassinervis Hack. *Bull. Herb. Boiss. Ser. II. i. 774.* (1901).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Namibia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *M.K. Dinter 1099*, no date, Namibia: Inachab (US-2891463 (fragm.)).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955).

Derivation (Clifford & Bostock 2007): *L. crassus*, thick; *nervus*, nerve. Lemmas conspicuously nerved.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Stolons absent or present. Glands sunken crateriform. Culms 15–60 cm long. Leaf-sheaths glandular. Ligule a fringe of hairs. Leaf-blades 5–10 cm long, 1–2.5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, linear or lanceolate, dense, 6–12 cm long, contracted about primary branches. Primary panicle branches indistinct the panicle almost racemose or simple, bearing spikelets almost to the base. Panicle branches glandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4.5–8 mm long, 2–3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.5 mm long, 1 length of upper glume, membranous, glandular, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5 mm long, 1 length of adjacent fertile lemma, membranous, glandular, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma oblong, 1.5 mm long, membranous, glandular on veins, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent, excurrent. Lemma apex truncate, mucronate. Palea keels eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.4–0.6 mm long. Caryopsis with adherent pericarp, orbicular, 0.4–0.5 mm long. Embryo 0.5 length of caryopsis.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa. Zimbabwe. Namibia, Limpopo.

Eragrostis crateriformis M. Lazarides. *Austral. Syst. Bot.*, 10(1): 108 (1997).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Northern Territory, Gurner Station: *Latz 2106* (CANB holo, AD, BRI, DNA, PERTH).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (400, Fig 71), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 175, Fig.5 (1997)).

Derivation (Clifford & Bostock 2007): *L. crater*, bowl; *forma*, appearance. With pit-like glands on culms, peduncles and pedicels.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Glands sunken crateriform. Culms geniculately ascending, 17–42 cm long, 2–3 -noded. Culm-internodes terete or elliptical in section, glandular. Lateral branches ample. Leaf-sheaths tight, eglandular, smooth, glabrous on surface. Leaf-sheath oral hairs lacking. Ligule a fringe of hairs, 1–3 mm long. Leaf-blades involute or convolute, 1–3 mm wide, without scent or aromatic. Leaf-blade surface scaberulous, rough adaxially, glabrous. Leaf-blade margins cartilaginous, eglandular, scaberulous.

Inflorescence. Inflorescence a panicle. Peduncle glandular. Panicle contracted, elliptic, 10–15 cm long, 2–10 cm wide. Primary panicle branches 1–4 -nate, not whorled or whorled at most nodes, simple or sparsely divided, 3–6 cm long. Panicle axis glandular. Panicle branches glandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 4–8 mm long, glandular.

Fertile Spikelets. Spikelets comprising 8–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 2.7–4.3 mm long, 0.5–1 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes curved, 0.3 mm long, eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume linear or ovate, 0.4–0.6 mm long, 0.66 length of upper glume, hyaline or membranous, without keels, 0 -veined. Lower glume lateral veins absent. Lower glume apex emarginate or obtuse. Upper glume oblong or ovate, 0.7–1 mm long, 0.9–1 length of adjacent fertile lemma, hyaline or membranous, 1-keeled, 1(–3) -veined. Upper glume lateral veins absent or obscure. Upper glume apex truncate or acute.

Florets. Fertile florets divergent. Fertile lemma elliptic or oblong or ovate, 0.8–1 mm long, membranous, keeled, (1–)3 -veined, 0–3 -veined, one-veined or several-veined. Lemma lateral veins close to margins, extending close to apex or stopping well short of apex or less than two thirds length of lemma. Lemma apex emarginate or obtuse. Palea oblanceolate, hyaline, 2 -veined. Palea keels falling well short of apex, smooth. Palea apex dentate, 3 -fid, emarginate or obtuse, scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.2 mm long. Caryopsis with adherent pericarp, ellipsoid or oblong, dorsally compressed, 0.3–0.4 mm long, red.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory. Ereman. Central Australia.

Eragrostis cubensis Hitchcock. *Contrib. U. S. Nat. Herb.* xii. 243 (1909).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Cuba. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *A.H. Curtiss 420*, 20 Mar 1904, Cuba: Pinar del Rmo: near Nueva Gerona, Isla de Pinos (US-522037; IT: MO-2067266, NY-70976).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. -ense*, denoting origin. From Cuba.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 8–35 cm long, wiry. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.2 mm long. Collar glabrous or pubescent. Leaf-blades convolute, 4–7 cm long, 0.4–0.6 mm wide. Leaf-blade surface scabrous, rough adaxially, glabrous or pubescent, hairy adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate, 2.5–7 cm long, 1–3 cm wide, bearing few spikelets. Primary panicle branches ascending, simple, 0.5–3 cm long, bearing 1–4 fertile spikelets on each lower branch. Panicle axis scabrous. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 12–50 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate or ovate, laterally compressed, 5–20 mm long, 1.6–3 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.2–1.4 mm long, 0.75–1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 1.2–1.6 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 1.6–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute. Palea 0.75 length of lemma. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ovoid, 0.8 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Caribbean. Cuba, Jamaica.

Eragrostis cumingii Steud. *Syn. Pl. Gram.* 266 (1854).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*), T.Koyama, *Grasses of Japan and its neighboring regions* (1987).

TYPE from Philippines. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Philippine Islands: Luzon: Laguna, 1841, *Cuming 1104* (lecto: K; isolecto: BM, BRI, E, G, P).

Recent Synonyms: *Eragrostis distans* Hack., *Philipp. Gov. Lab. Bur. Bull.* 35: 81. (1906).

Illustrations (Books): T.Koyama, *Grasses of Japan and its neighbouring regions* (1987) (256, Fig 95), C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (398), C-C Hsu, *Taiwan Grasses* (1975) (482, Pl. 1403), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (374 & 407, Fig 67 & 72), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (73), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 670).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 171, Fig.1 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;, H.B.Gilliland et al., *Flora of Malaya* Vol. 3 *Grasses* (1971);.

Derivation (Clifford & Bostock 2007): in honor of Hugh Cuming (1791–1865) English naturalist and traveller.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms erect, 30–60 cm long, wiry. Leaf-sheaths 2.5–3.5 cm long, glabrous on surface. Ligule a fringe of hairs. Leaf-blades filiform, involute, 5–10 cm long, 1–2 mm wide. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 6–12 cm long, 2–4 cm wide, with spikelets clumped along branches. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, eglandular.

Fertile Spikelets. Spikelets comprising 15–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 4–15 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.3 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.3 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.8 mm long, membranous, glandular on veins, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.2 mm long. Caryopsis with adherent pericarp, ovoid or orbicular, 4 mm long, dark brown.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia, Australasia, North America, South America.

Country /Province /State. China, Eastern Asia. China Southeast. Japan, Kazan-retto, Nansei-Shoto, Taiwan. Japan Honshu. **Indian Subcontinent, Indo-China, Malesia, Papuasia.** Eastern Himalaya. Myanmar,

Thailand, Vietnam. Java, Lesser Sunda Is, Malaya, Singapore, Philippines, Sulawesi. New Guinea West Papua (Irian Jaya). New Guinea. **Australia.** Western Australia, Northern Territory, Queensland. **Southeastern USA.** Florida, Georgia. **Caribbean.** Cuba.

TDWG4. Anhui, Fujian, Guangdong, Guangxi, Jiangsu, Zhejiang. Guizhou, Hubei, Yunnan. Kimberley, Ereman. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. North, Central, Inland.

Eragrostis curtipedicellata Buckl. *Proc. Acad. Sc. Philad.* 1862 :97. (1863).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: LT: *Buckley s.n.*, USA: northern Texas (PH). LT designated by Hitchcock, *Man. Grass. U.S.* 849 (1935), but without citing a specific sheet in a specific herbarium.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (90), F.W.Gould, *The Grasses of Texas* (1975) (194, Fig. 98).

Illustrations (Journals): *Sida* (21: 1380, Fig.4A-B (2005)).

Derivation (Clifford & Bostock 2007): *L. curtus*, short; pedicellus, stalk; -ata, possessing. Spikelets shortly stalked.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Glands elongated. Culms erect or geniculately ascending, 20–60 cm long. Culm-internodes glandular. Leaf-sheaths without exudate or viscid, outer margin glabrous or hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades 5–10 cm long, 2–4 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle, deciduous as a whole. Panicle open, ovate, 30–45 cm long, 10–25 cm wide. Primary panicle branches ascending or spreading, 3–15 cm long. Panicle branches stiff, viscid, scabrous, bearded in axils. Spikelets appressed, solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–1 mm long, scabrous.

Fertile Spikelets. Spikelets comprising 4–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 4–5 mm long, 1–1.5 mm wide, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.25–1.5 mm long, 0.7–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 1.5–2 mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 2 mm long, 1 mm wide, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Palea straight. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.2–0.3 mm long. Caryopsis with adherent pericarp, ellipsoid, 1 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. Northwest USA, North-central USA, South-central USA, Southeastern USA, Mexico. Colorado. Kansas, Oklahoma. New Mexico, Texas. Arkansas, Louisiana. Northeast Mexico. Coahuila, Neuvo Leon.

Eragrostis curvula (Schrad.) Nees. *Fl. Afr. Austr.* 397. (1841).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (& as *E. robusta*), N.Tsvelev, *Grasses of the Soviet Union* (1983), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from South Africa, Cape. **Basionym or Replaced Name:** *Poa curvula* Schrad., *Gott. Gel. Anz.* 3: 2073 (1821). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *Hesse s.n.*, South Africa: Cape Province: Cape of Good Hope (LE (ex GOET)?); IT: GOET-2265, LE-TRIN-2327.01 (lower middle specimen)). ["*Poa curvula* Schrad. Anal. de Fl. Cap., det cl. Schrader, Gvtt. 1836. C. b. sp., m Hesse". Veldkamp, *Blumea* 47: 173 (2002) cites "Type: Hesse s.n. in Herb. Trinius 2327.1 (2327.3?) (holo PH?; LE, iso, microfiche IDC BT-16/1)." PH is doubtfully the depository of the HT as this refers to grass material exchanged

with Muhlenberg, and Hitchcock and Chase certainly would have uncovered that. Most likely the HT is at LE and an IT in the Trinius herbarium there.] [rjs 2004]].

Recent Synonyms: *Eragrostis chloromelas* Steud., *Syn. Pl. Gram.* 271. (1854). *Eragrostis jeffreysii* Hack. *Proc. Rhodesia Sci. Ass.* 7:2. 68 (1908).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (140 & 143, Fig 108 & 110 & as *E. chloromelas*), M.A.N. Muller, *Grasses of South West Africa/Namibia* (1984) (as *E. jeffreysii*), G.E. Gibbs Russell et al, *Grasses of Southern Africa* (1990) (139, Fig 85), C-C Hsu, *Taiwan Grasses* (1975), K.M. Matthew, *Flora Palni Hills* (1996) (823, Pl 823), K.M. Matthew, *Flora Palni Hills* (1996), J.P. Jessop, G.R.M. Dashorst & F.M. James, *Grasses of South Australia* (2006) (368, Fig 296), C.A. Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (117, Pl 33), N. Walsh & T. Entwistle, *Flora of Victoria* Vol 2 (1994) (567, Fig 113), S.W.L. Jacobs, R.D.B. Whalley & D.J.B. Wheeler, *Grasses of New South Wales*, 4th edn (2008) (250), D. Sharp & B.K. Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrata Catarinensis Gramineas* (1981–1982), M.E. Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (77), S-L Chen et al, *Flora of China*, Illustrations, *Poaceae* (2007) (Fig. 662), E. Hafliger & E. Schultz, *Grass Weeds*, CIBA-GEIGY (2:68(1980)).

Illustrations (Journals): *Sida* (21: 1382, Fig.5A-C (2005)), *Ann. Missouri Bot. Gard.* (94: 765 fig 12 (2007)).

Images: D. Sharp & B.K. Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O. Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;, R. Darke, *Ornamental Grasses* (2004);, R. Darke, *The Encyclopaedia of Grasses for Liveable Landscapes* (2007); (& as *E. chloromelas*), F. van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999) (& as *E. chloromelas*).

Derivation (Clifford & Bostock 2007): *L. curvus*, bent; -ula, diminutive. Leaf-blades curved.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths coriaceous, yellow, distinctly ribbed, pubescent. Culms erect, 30–120 cm long. Ligule a fringe of hairs. Leaf-blades filiform or linear, flat or convolute, 10–30 cm long, 1–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, lanceolate or ovate, 6–30 cm long. Primary panicle branches not whorled or whorled at lower nodes. Panicle branches glabrous in axils or pubescent in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–13 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 4–10 mm long, 1–1.5 mm wide, breaking up at maturity, rachilla persistent, retaining paleas, tough throughout or fragile above, with the distal florets disarticulating separately or disarticulating into irregular segments.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1–1.8 mm long, 0.6–0.8 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5–2.2 mm long, 0.8 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rachilla. Fertile lemma elliptic or ovate, 1.8–2.6 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse or acute. Palea keels smooth or scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.8–1.1 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.7 mm long.

$N = 20$ (1 ref TROPICOS), or 27 (1 ref TROPICOS). $2n = 40$ (1 ref TROPICOS), or 50 (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe (*), Africa, Temperate Asia, Tropical Asia, Australasia (*), Pacific, North America, South America.

Region. Northern Europe (*).

Country /Province /State. : Great Britain (*). **Macaronesia, West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Middle Atlantic ocean, Western Indian ocean.** Madeira. Burundi, Central African Republic, Equatorial Guinea, DRC. Eritrea, Ethiopia (inc. Eritrea). Kenya, Tanzania. Angola, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Lesotho, Northern Cape, Western Cape, Eastern Cape. Madagascar (*). **Middle Asia, Caucasus, Western Asia, Arabian Peninsula, China, Eastern Asia.** Kazakhstan, Turkmenistan, Tadjikistan, Uzbekistan. Iran. China South Central, China Southeast, Xinjiang. Ogosawara-shoto. **Indian Subcontinent, Indo-China, Malesia, Papuasiasia.** Pakistan (*). Myanmar. Java, Philippines. New Guinea. **Australia, New Zealand.** Western Australia (*), Northern Territory (*), South Australia (*), Queensland (*), New South Wales (*), A.C.T. (*), Victoria (*), Tasmania (*). New Zealand North I, New Zealand South I. **Southwestern Pacific.** Hawaii (*). **Northwest USA, Southwestern USA, South-central USA, Southeastern USA, Mexico.** Colorado, Oregon, Washington. Arizona, California, Utah. New Mexico, Texas. Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina. Central Mexico, Northeast Mexico, Northwest Mexico, Southwest Mexico.

Mesoamerica, Northern South America, Western South America, Brazil, Southern South America. Costa Rica. Venezuela. Bolivia, Colombia. Brazil West Central, Brazil Northeast, Brazil North, Brazil Southeast, Brazil South. Argentina Northeast, Argentina Northwest, Chile Central, Chile South, Uruguay.

TDWG4. Fujian, Guangxi, Jiangsu. Hubei, Yunnan. Eremean, South-West. Central Australia. Southern. North, Central, South East, Inland. Coast, Tablelands, Western Slopes, Western Plains. Jujuy, Mendoza, San Luis. Buenos Aires, Chaco, Cordoba, Entre Rios, La Pampa, Santa Fe. Biobio. Magellanes. Distrito Federal, Tlaxcala. Coahuila, Chihuahua, Durango, Guanajuato, Neuvo Leon, Zacatecas. Sonora. Michoacan, Oaxaca.

Eragrostis cylindrica (Roxb.) Nees ex Hook. & Arn. *Bot. Beech. Voy.* 251 (1838).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), T.Koyama, *Grasses of Japan and its neighboring regions* (1987).

TYPE from China. **Basionym or Replaced Name:** *Poa cylindrica* Roxb., *Fl. Ind., ed. 1820* 1: 335 (1820). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: 'from Canton in China the seed was received into the Botanic Garden, 1811', *W. Kerr s.n.* (HT: ?).

Illustrations (Books): C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (400), C-C Hsu, *Taiwan Grasses* (1975), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 663).

Derivation (Clifford & Bostock 2007): *L. cylindrus*, cylinder; *L. -ica*, belonging to. Inflorescences cylindrical.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Culms erect or geniculately ascending, 45–90 cm long, 1–1.2 mm diam. Culm-internodes smooth, distally glabrous. Leaf-sheaths mostly shorter than adjacent culm internode, glabrous on surface to pilose. Ligule a fringe of hairs, 0.3 mm long. Leaf-blades involute, 5–13 cm long, 2–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear or oblong, 7–15 cm long, 1–1.8 cm wide. Primary panicle branches appressed, 1-nate, 1–1.7 cm long, bearing 5–8 fertile spikelets on each lower branch. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 8–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 5–9 mm long, 1.8–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.8–2 mm long, 0.9 length of upper glume, membranous, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 2–2.2 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile lemma ovate, 2.2–2.5 mm long, membranous, keeled, 3-veined, 0–3-veined. Lemma apex acute. Palea bowed outwards. Palea keels pubescent. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 0.5 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. China, Eastern Asia. Hainan, China Southeast. Japan, Taiwan. **Indo-China.** Thailand.

TDWG4. Anhui, Fujian, Guangdong, Guangxi, Jiangsu.

Eragrostis cylindriflora Hochst. *Flora*, viii. 324. (1855).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ethiopia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Abyssinia, Semien [1852], *Schimper in Herb. Buchinger* 772 (HT: STR) in pl. abyss. anno 1852 a Schimpero lectis.

Recent Synonyms: *Eragrostis rigidior* Pilger, *Engl. Jahrb.* 48: 347 (1912).

Poa geniculata Dur., *Expl. Alger. t.* 40. f. 4. (1849).

Illustrations (Books): R.M.Phillip, F.T.E.A., *Gramineae* (2(1974):241, Fig.66), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (149, Fig 116 as *E. rigidior* & *E. atherstonei* & *E. horizontalis*), M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984) (& as *E. rigidior*), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (as *E. rigidior*), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (153, Fig 51), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (120, Fig 49), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (77).

Images: F. van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): *L. cylindrus*, cylinder; flos, flower. Spikes terete.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual or perennial, caespitose. Stolons absent or present. Butt sheaths without ribs, glabrous to pubescent. Glands sunken crateriform. Culms erect or geniculately ascending or decumbent, 30–100 cm long, without nodal roots or rooting from lower nodes. Culm-internodes eglandular or glandular (below node). Lateral branches lacking or sparse. Leaf-sheaths eglandular or glandular, glabrous on surface or pilose (rarely), with tubercle-based hairs. Ligule a fringe of hairs. Leaf-blades flat or involute, 3–25 cm long, 1–5 mm wide, eglandular or glandular.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, 2–40 cm long. Primary panicle branches whorled at lower nodes or whorled at most nodes. Panicle branches glabrous in axils or pubescent in axils or bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 3–8 mm long, 1–1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, tough throughout or fragile above, with the distal florets disarticulating separately.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate or ovate, 1–2.7 mm long, 1 length of upper glume, hyaline or membranous, grey, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate to ovate, 1–2.7 mm long, 0.75–1.3 length of adjacent fertile lemma, hyaline or membranous, grey, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic, 1.5–2 mm long, membranous, dark green or grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex obtuse or acute. Palea keels smooth or scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.8–1 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.5–0.7 mm long.

Distribution (TDWG). Continent. Africa, Temperate Asia, North America.

Country /Province /State. Northern Africa, West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean. Algeria, Tunisia. Ghana, Niger. DRC. Eritrea, Ethiopia (inc. Eritrea). Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Kwazulu-Natal, Northern Cape, Western Cape. Madagascar. **Arabian Peninsula.** Yemen. **Southeastern USA.** Maryland.

Eragrostis dayanandani P. Ravichandran, S. Krishnan & N.P. Samson. *Kew Bull.*, 51(1): 155 (1996).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online.

TYPE from India. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: India: Tamil Nadu, Chengalpattu District: on the way to prehistoric caves of Gudium, ca. 50 m, 24 Jan 1992, *Azhakanandam, Krishnan, Ravichandran & Samson* 235 (HT: MH; IT: K, Madras Christian College Herb.).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): In honor of P. Dayanandan, Professor of Botany, Madras Christian College.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms erect, 10–25 cm long. Culm-nodes glabrous. Leaf-sheaths longer than adjacent culm internode. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades 4–15 cm long, 2–5 mm wide. Leaf-blade midrib conspicuous. Leaf-blade margins ciliate, hairy at base.

Inflorescence. Inflorescence a panicle. Panicle open, pyramidal, 4–10 cm long, contracted about primary branches. Primary panicle branches 5 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, scaberulous.

Fertile Spikelets. Spikelets comprising 6–36 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 6–10 mm long, 1–1.75 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes glabrous.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.7–0.9 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate or ovate, 0.9–1.2 mm long, 0.9–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma lanceolate or ovate, 1–1.2 mm long, membranous, grey, eglandular, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea oblanceolate, 1 mm long, 1 length of lemma. Palea keels scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2, 0.2 mm long, purple. Caryopsis with adherent pericarp, ellipsoid or orbicular, isodiametric, 0.5 mm long.

Distribution (TDWG). **Continent.** Tropical Asia.

Country /Province /State. **Indian Subcontinent.** India.

Eragrostis deccanensis Bor. *Grasses Burma, Ceyl., Ind. & Pakist.* 507 (1960).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from India. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Narayanaswami 3027*, Madras

ST: *Wallich 5015*, Madras.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From the Deccan region of India.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 30–100 cm long. Ligule a fringe of hairs. Leaf-blades linear or lanceolate, 4–12 cm long, 2–5 mm wide. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle spiciform, oblong, 3–8 cm long, 1.5 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 10–16 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 6–7 mm long, 3 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.2 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume elliptic, 2 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2.5–3 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acuminate. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, oblong, 0.6 mm long.

$2n = 20$ (1 ref TROPICOS).

Distribution (TDWG). **Continent.** Tropical Asia.

Country /Province /State. **Indian Subcontinent.** India.

TDWG4. Tamilnadu. Jammu Kashmir.

Eragrostis decumbens Renvoize. *Kew Bull.*, 25(3): 418 (1971).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *S.A. Renvoize 806*, 18 Jan 1968, Aldabra Islands: Aldabra I. (K; IT: US-2878089).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. decumbo, fall down. Culms prostrate.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms decumbent or prostrate, 2–15 cm long. Culm-internodes distally glabrous. Leaf-sheaths glabrous on surface, outer margin glabrous or hairy. Leaf-sheath oral hairs lacking or ciliate, 1–2 mm long. Ligule a fringe of hairs, 0.1–0.2 mm long. Leaf-blades involute, 1–4(–6) cm long, 1 mm wide, stiff. Leaf-blade surface glabrous or pilose.

Inflorescence. Inflorescence a panicle. Panicle spiciform, linear. Primary panicle branches 1 -nate. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–4 mm long.

Fertile Spikelets. Spikelets comprising 10–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 2.5–8 mm long, 1.5–3 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.5 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume

ovate, 1–1.5 mm long, 0.75–1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic or ovate, 1.5 mm long, 0.8–1 mm wide, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea elliptic, 1–1.5 mm long. Palea keels ciliate, with hairs 0.5 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2, 0.2–0.5 mm long. Caryopsis with adherent pericarp, ellipsoid or ovoid, 0.5 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Aldabra, Seychelles.

Eragrostis deflexa Hitchcock. *Mem. Bishop Mus., Honolulu*, viii. 131 (1922).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Hawaii. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: A.S. Hitchcock 14476, 30 Aug 1916, Hawaii: Puu Waawaa: open woods on hillside (US-836465; IT: LE, US-3232311).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. bent abruptly downwards. Inflorescence branches drooping.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 40–100 cm long. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades flat or involute, 10–30 cm long, 2–4 mm wide. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, 20–40 cm long, 6–15 cm wide. Primary panicle branches spreading or reflexed, whorled at most nodes. Panicle axis scabrous. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, flexuous, 2–4 mm long.

Fertile Spikelets. Spikelets comprising 4–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 5–8 mm long, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2.5–3 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 2.5–3 mm long, 0.8–1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 2.5 mm long, chartaceous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins obscure. Lemma surface scaberulous, rough above. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Pacific.

Country /Province /State. North-central Pacific. Hawaii.

Eragrostis dentifera Launert. *Bol. Soc. Brot., Ser. 2*, v. 26 (1961).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Zambia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Zambia, Mbala Distr.: Siame 202 (SRGH holo).

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):105, t. 35).

Derivation (Clifford & Bostock 2007): L. dens, tooth; fero, bear. Lemma three-toothed.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 30–70 cm long, 3–5 -noded. Ligule a fringe of hairs. Leaf-blades erect, filiform, involute, 5–12(–17) cm long, 0.5–2.5(–4) mm wide. Leaf-blade surface glabrous or pilose, hairy adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, 10–16(–20) cm long, 7–9(–12) cm wide. Panicle branches angular, scabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 2–4(–6) mm long, scaberulous.

Fertile Spikelets. Spikelets comprising 5–25 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, (4–)6–10(–12) mm long, 2–2.5(–2.75) mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume ovate, 2.8 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 3.6 mm long, 1.1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent, free at tip. Fertile lemma oblong, 3.2 mm long, membranous, dark green or black, keeled, 3 -veined, 0–3 -veined. Lemma apex lobed, 3 -fid, with outer lobes shorter, incised 0.3–0.4 of lemma length. Palea 2 -veined. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1.2 mm long. Stigmas 2. Caryopsis with adherent pericarp, 0.8–0.9 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Zambia.

Eragrostis deqenensis B.S. Sun & S. Wang. *Acta Bot. Yunnanica*, 11(3): 306 (1989).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China, Yunnan, Deqen Xian: Grade Northwest in Yunnan 84492 (YUNU holo).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms erect, 30–60 cm long, 2–3 -noded. Leaf-sheaths mostly shorter than adjacent culm internode, outer margin hairy. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs, 0.5 mm long. Leaf-blades involute, 6–16 cm long, 3 mm wide. Leaf-blade surface scaberulous, rough adaxially. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 23 cm long, 8 cm wide. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 3–11 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 8 mm long, 1 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.1 mm long, 0.75 length of upper glume, membranous, much thinner on margins, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.6 mm long, 0.75 length of adjacent fertile lemma, membranous, with hyaline margins, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse or acute.

Florets. Fertile lemma ovate, 2 mm long, chartaceous, mid-green or grey, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea 1.8 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.6 mm long, purple. Caryopsis with adherent pericarp, ellipsoid or ovoid, 1 mm long, light brown.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central.

Guizhou, Sichuan, Yunnan.

Eragrostis desertorum Domin. *Biblioth. Bot.* 1 v. 404 (1915).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: West Queensland: durre Hugel bei Cloncurry, Feb 1910, *Domin s.n.*

Illustrations (Books): C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (127, Pl 37), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Derivation (Clifford & Bostock 2007): *L. desertum*, desert. Of deserts, that is, from arid places.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Cataphylls evident. Stolons present. Butt sheaths thickened and forming a bulb, woolly. Culms 30–40 cm long. Leaves mostly basal. Ligule a fringe of hairs. Leaf-blades filiform, convolute, 5–12 cm long, 1–2 mm wide, stiff. Leaf-blade apex attenuate, hardened.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate or ovate, 2–4 cm long. Primary panicle branches simple. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 8–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, curved, laterally compressed, 5 mm long, 1 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume oblong, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume oblong, 1.2–1.5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile lemma ovate, 1.2–1.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex obtuse. Palea 1 length of lemma. Palea keels smooth. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland.

Kimberley, Ereman. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. North.

Eragrostis desolata Launert. *Bol. Soc. Brot., Ser. 2*, v. 18 (1961).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Zimbabwe. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Zimbabwe, Chimanimani Mts.: West 3638 (SRGH holo, K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. desolo*, abandon. A species previously overlooked.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous or pilose. Glands sunken crateriform, or annular. Culms erect, 40–70 cm long. Lateral branches lacking. Leaf-sheaths glabrous on surface or pilose. Ligule a fringe of hairs. Leaf-blades flexuous, filiform, involute, 5–12 cm long, 0.5–2 mm wide. Leaf-blade surface scaberulous, glabrous or pilose, sparsely hairy.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, 10–30 cm long, 8–15 cm wide. Primary panicle branches ascending or spreading, 1 -nate. Panicle axis smooth or scaberulous. Panicle branches glandular, smooth or scaberulous. Spikelets spreading, solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 2–8 mm long, glandular, scaberulous.

Fertile Spikelets. Spikelets comprising 8–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 5–9 mm long, 4 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate or ovate, 1.6 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate or ovate, 1.6 mm long, 0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic or ovate, 1.8–2 mm long, 1.4–1.6 mm wide, membranous, dark green or grey, keeled, lightly keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins obscure. Lemma apex acute. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, 0.4 mm long, fleshy. Anthers 3, 1.2 mm long. Caryopsis with adherent pericarp, oblong, quadrangular, 0.8–1 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa. Zimbabwe. Mpumalanga.

Eragrostis dielsii Pilg. ex Diels & Pritz. *Engl. Jahrb.* v. 76. (1904).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Hab. in distr. Austin littoral pr. Carnarvon in solo arenoso-argilloso flor. m. Aug, *Diels 3635*.

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (368, Fig 297 as var. *dielsii*), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (127, Pl 37), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (567, Fig 113), S.W.L.Jacobs, R.D.B.Whalley &

D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (250), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): in honor of Friedrich Ludwig Emil Diels (1874–1945), German botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, short-lived, caespitose. Culms erect or geniculately ascending, 7–30 cm long. Ligule a fringe of hairs. Leaf-blades 4–8 cm long, 1–2 mm wide. Leaf-blade surface scabrous.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, linear or lanceolate or elliptic, equilateral or secund, 2–10 cm long, 1–1.5 cm wide, gathered into fascicles. Primary panicle branches distant, 1-nate, indistinct the panicle almost racemose or simple, 0–3 cm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 12–45 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, straight or curved, laterally compressed or subterete, compressed slightly, 15–25 mm long, 1–1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume oblong, 1.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume oblong, 1.5 mm long, 0.66–0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2–2.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent, midway between midvein and margin. Lemma apex obtuse. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ellipsoid, dorsally compressed.

Distribution (TDWG). Continent. Europe (*), Australasia.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Australia.** Western Australia, Northern Territory, South Australia, Queensland, New South Wales, Victoria. Hawaii (*).

Central Australia. NW & Lake Eyre, Southern. Inland. Western Plains.

Eragrostis dinteri Stapf. *Kew Bull.* 1906, 29. (1906).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Namibia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Namibia, Ossire: Dinter 484 (K holotype).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955).

Derivation (Clifford & Bostock 2007): in honor of Kurt Dinter (1868–1945) German botanist who collected widely in southern Africa.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 15–50 cm long. Ligule a fringe of hairs. Leaf-blades 3–15 cm long, 2–8 mm wide. Leaf-blade margins glabrous or tuberculate-ciliate.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, 5–20 cm long. Panicle branches glandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–25 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 7–17 mm long, 3–5 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes obscured by lemmas.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 2–3.5 mm long, 0.8–1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 2.5–3.5 mm long, 0.6–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume apex acute.

Florets. Fertile florets divergent, free at tip. Fertile lemma ovate, 4–4.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 0.5 mm long overall. Palea 2 -veined. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3. Stigmas 2. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. **South tropical Africa, Southern Africa.** Angola. Namibia, Botswana.

Eragrostis divaricata Cope. *Kew Bull.* 53:132 (1998).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Zambia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Zambia: Mwinilunga Distr.: Kalenda Plain, 30 Jan 1938, *Milne-Redhead 4415* (K; IT: K, PRE).

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):60, t. 26).

Illustrations (Journals): *Kew Bulletin* (53: 134, Fig.1 (1998)).

Derivation (Clifford & Bostock 2007): *L. divarico*, spread out. Inflorescence branches or culms regularly dividing into equal branches.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Butt sheaths glabrous. Culms erect, 35–40 cm long. Culm-internodes eglandular. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheaths eglandular, without keel, glabrous on surface. Ligule a fringe of hairs. Leaf-blades filiform, convolute, 3–8 cm long, 0.5 mm wide, eglandular. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 3–8 cm long. Primary panicle branches branching divaricately. Panicle branches eglandular, bearded in axils, with prominent pulvini. Spikelets spreading, solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 3–6 mm long.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 1.3–1.8 mm long, 0.7–0.9 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 0.8–1.1 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 0.8–1.1 mm long, 0.5 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent. Fertile lemma elliptic, 1.1–1.3 mm long, membranous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex obtuse. Palea 2 -veined. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2, 0.3 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.8 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Zambia.

Eragrostis domingensis (Pers.) Steud. *Syn. Pl. Gram.* 278. (1854).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

Basionym or Replaced Name: *Poa domingensis* Pers., *Syn. Pl.* 1: 88 (1805)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Habitat in arenosis maritimis ad St. Domingo, *Poiteau s.n.*

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. -ense*, denoting origin. From Dominican Republic.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms geniculately ascending, 30–150 cm long. Lateral branches lacking or sparse. Leaves cauline. Ligule a fringe of hairs. Leaf-blades involute or convolute, 6–30 cm long, 1–3 mm wide, coriaceous, stiff, glaucous. Leaf-blade apex filiform.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear or lanceolate, 10–30 cm long. Primary panicle branches appressed, bearing spikelets almost to the base. Panicle branches flexuous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–22 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 4–11 mm long, 1–1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.5 mm long, 0.7–0.8 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.2–2 mm long, 0.8–0.9 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets free at tip. Fertile lemma ovate, 1.5–2.2 mm long, membranous, mid-green or dark brown, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.5–0.7 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.7–0.8 mm long.

Distribution (TDWG). Continent. Africa, South America.

Country /Province /State. Macaronesia, West tropical Africa, West-central tropical Africa. Cape Verde. Benin, Gambia, Ghana, Ivory Coast, Mali, Mauritania, Nigeria, Senegal, Togo. Annobon, Principe & Sao Tome. **Caribbean, Northern South America.** Cayman Is, Cuba, Dominican Republic, Haiti, Jamaica, Leeward Is, Windward Islands.

Eragrostis duricaulis Sun & Wang. *J. Yunnan Univ., Nat. Sci. Ed.* 20(5): 354 (1998).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Yunnan: Zhenkang Xian, reservoir dams, ca. 1100 m.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Cataphylls evident. Culms erect, 60–80 cm long, 1–1.2 mm diam., 3–5 -noded. Culm-internodes distally glabrous. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a ciliolate membrane, 0.1–0.3 mm long. Leaf-blades filiform, flat or conduplicate, 5–20 cm long, 1–3 mm wide. Leaf-blade surface pilose, hairy adaxially, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 12–22 cm long, 4–10 cm wide. Primary panicle branches ascending, 1–2 -nate, 3–6 cm long. Panicle branches glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–3 mm long, eglandular.

Fertile Spikelets. Spikelets comprising 6–16 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, laterally compressed, 4–9 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.2 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.8 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2 mm long, membranous, yellow or grey, keeled, 3 -veined, 0–3 -veined. Lemma apex acuminate. Palea 1.6 mm long, 2 -veined. Palea apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.3–0.4 mm long. Caryopsis with adherent pericarp, ellipsoid or orbicular, 0.5–0.6 mm long, light brown.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central.

TDWG4. Yunnan.

Eragrostis ecarinata M. Lazarides. *Austral. Syst. Bot.*, 10(1): 114 (1997).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia, Northern Territory, Mainoru homestead: *Latz 2732* (CANB holo, BRI, DNA).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (362 7 374, Fig 65 & 67), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 174, Fig.4 (1997)).

Derivation (Clifford & Bostock 2007): *L. e-*, without; *carina*, keel; *-ata*, possessing. Palea keels reduced.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Cataphylls evident. Butt sheaths glossy. Culms 60–92 cm long, 4–6 -noded. Leaf-sheaths tight, longer than adjacent culm internode, scaberulous. Leaf-sheath oral hairs ciliate, erect, 3–5 mm long, pale. Ligule a fringe of hairs, 0.1–0.3 mm long. Collar glabrous or pilose. Leaf-blades curled, 12–25 cm long, 2.5–4 mm wide. Leaf-blade surface pilose or hirsute, hairy adaxially. Leaf-blade margins cartilaginous, scaberulous.

Inflorescence. Inflorescence a panicle. Panicle spiciform, linear, continuous or interrupted, 9–22 cm long, 1 cm wide. Panicle branches scabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–10 mm long.

Fertile Spikelets. Spikelets comprising 15–22 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets oblong or ovate, laterally compressed, 6.5–9 mm long, 3 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes thickened, curved, 0.2–0.5 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume linear or ovate, 1.1–2.5 mm long, 0.9 length of upper glume, cartilaginous, 1-keeled, 1(–5) -veined. Lower glume lateral veins absent or obscure. Lower glume apex acuminate. Upper glume linear or ovate, 1.1–2.5 mm long, 0.6–1.2 length of adjacent fertile lemma, cartilaginous, 1-keeled, 1(–5) -veined. Upper glume lateral veins absent or obscure. Upper glume apex acuminate.

Florets. Fertile lemma elliptic or ovate or orbicular, gibbous, 2 mm long, cartilaginous, keeled, 3 -veined, 0–3 -veined. Lemma surface smooth or asperulous. Lemma apex obtuse. Palea orbicular, with auriculate flaps, 2 -veined. Palea keels falling well short of apex. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.4–0.5 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.6–0.7 mm long. Disseminule comprising a floret.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory.
Darwin & Gulf.

Eragrostis echinochloidea Stapf. *Dyer, Fl. Cap.* vii. 627. (1900).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Kalahari Region: Orange Free State, between Kimberly and Bloemfontein, *Buchanan* 284.

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):57, t. 24), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (174, Fig 145), M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984), N.Feinbrun-Dothan, *Flora Palaestina* 4 (1986) (Pl. 372), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (88).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): Gk. -oides, resembling. Inflorescences resembling those of *Echinochloa*.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous or sparsely hairy. Culms erect or geniculately ascending, 45–90 cm long. Leaf-sheaths glandular (on keel), keeled. Ligule a fringe of hairs. Leaf-blades 25–50 cm long, 3–6 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 4–16 cm long, 2–8 cm wide, contracted about primary branches. Panicle branches glandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–16 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 2–6 mm long, 2.2–3.5 mm wide, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 2 mm long, 1 length of upper glume, membranous, glandular (on veins), 1-keeled, 3 -veined. Lower glume apex acuminate. Upper glume ovate, 2 mm long, 1 length of adjacent fertile lemma, membranous, glandular (on veins), 1-keeled, 3 -veined. Upper glume apex acuminate.

Florets. Fertile lemma orbicular, 2 mm long, membranous, glandular on veins, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Palea keels winged, conspicuously winged, with toothed wings, scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.5–0.7 mm long. Caryopsis with adherent pericarp, ellipsoid, 1 mm long, dark brown. Embryo 0.5 length of caryopsis.

N = 30 (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe (*), Africa, North America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **South tropical Africa, Southern Africa.** Zimbabwe. Namibia, Botswana, Limpopo, North-West, Western Cape. **Southwestern USA, Southeastern USA, Mexico.** Arizona. Maryland. Northeast Mexico, Northwest Mexico.

Guanajuato. Sonora.

Eragrostis egregia W. D. Clayton. *Kew Bull.* xx. 271. (1966).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Ghana. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Ghana: Walewale to Mishuo, much disturbed sandy soil at edge of road, 28 Oct 1958, *Rose-Innes GC30767* (HT: K).

Illustrations (Journals): *Kew Bulletin* (20:272, Fig.6 (1966)).

Derivation (Clifford & Bostock 2007): L. extraordinary. Differing markedly in some respect from closely related species.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 60–150 cm long, 4–5-noded. Ligule a fringe of hairs. Leaf-blades 15–30 cm long, 3–5 mm wide. Leaf-blade surface pilose, hairy adaxially. Leaf-blade apex filiform.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or oblong, 18–30 cm long, 10–15 cm wide. Primary panicle branches simple, bearing spikelets almost to the base. Panicle branches stiff. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 10–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 9–15 mm long, 2.5–3 mm wide, breaking up at maturity, rachilla persistent, retaining paleas, fragile above, with the distal florets falling as a whole.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.5–2 mm long, 1 length of upper glume, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex acute, awned. Upper glume ovate, 1.5–2 mm long, 0.6–0.7 length of adjacent fertile lemma, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea, separately deciduous. Lemma of lower sterile floret similar to upper glume. Fertile florets divergent, imbricate to tip. Fertile lemma oblong or ovate, 2.5–3 mm long (the lower 3–4 shorter), membranous, keeled, 3-veined, 0–3-veined. Lemma apex acute. Palea keels winged, narrowly winged, scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2–3, 0.7–1.3 mm long. Caryopsis with adherent pericarp, orbicular, isodiametric, 0.6–0.8 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa. Ghana, Ivory Coast, Senegal.

Eragrostis elatior Hackel, non Stapf(1900). *Fedde, Repert. Nov. Sp.* vii. 374 (1909).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IST: *Zeyher s.n.*, 1839, South Africa: Coast Region: Cape Division: Cape Flats, near doorn Hoogte (LE).

ST: *Drige s.n.*, South Africa: Coast Region: Paarl Div.: by the Berg River near Paarl.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. taller. Culms taller than those of related species.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Culms erect or geniculately ascending, 25–50 cm long. Lateral branches lacking or sparse. Leaves cauline. Ligule a fringe of hairs. Leaf-blades flat or convolute, 10–20 cm long, 2–3.5 mm wide. Leaf-blade apex filiform.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear, 5–20 cm long. Primary panicle branches appressed, simple. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–11 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 5–8 mm long, 2–2.5 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.5 mm long, 0.75 length of upper glume, cartilaginous, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 2 mm long, 0.75 length of adjacent fertile lemma, cartilaginous, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2.5–3 mm long, membranous, dark green, keeled, 3-veined, 0–3-veined. Lemma lateral veins distinct. Lemma apex acute. Palea keels approximate, thickened, scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.6–1 mm long. Caryopsis with adherent pericarp, ellipsoid or oblong, 1–1.3 mm long. Embryo 0.4 length of caryopsis.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Western Cape.

Eragrostis elegantissima Chiov. *Ann. Ist. Bot. Roma*, viii. 367 (1908).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Eritrea. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Beni Amer.: Carajai, *Pappi* 7146.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. elegans*, elegant; -issima, most. Very attractive in some respect, usually the inflorescence.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms geniculately ascending, 20–30 cm long. Ligule a fringe of hairs. Leaf-blades involute, 2–8 cm long, 1–1.5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, linear or ovate, 4–15 cm long. Panicle branches flexuous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 14–50 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 8–25 mm long, 1.2–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.2–2 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.2–2 mm long, 0.8–1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent, free at tip. Fertile lemma ovate, 1.5–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex obtuse. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2, 0.1–0.3 mm long. Caryopsis with adherent pericarp, orbicular, 0.5 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, Northeast tropical Africa. Burkina, Niger. Chad, Eritrea, Sudan.

Eragrostis elliotii S. Wats. *Proc. Am. Acad.* xxv. 140 (1890).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from USA. **Basionym or Replaced Name:** *Poa nitida* Elliott, *Sketch Bot. S. Carolina* 1(2): 162 (1816). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Elliot com. Herb. Ledeb.: Herb. Zeyheri*, USA: South Carolina: Paris Island (CHARL; IT: LE).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (100), F.W.Gould, *The Grasses of Texas* (1975) (188, Fig. 94), A.S.Hitchcock, *Manual of the Grasses of the West Indies* (1936) (42, Fig. 21).

Illustrations (Journals): *Sida* (21: 1384, Fig.6A-C (2005)).

Images: R.Darke, *Ornamental Grasses* (2004);.

Derivation (Clifford & Bostock 2007): in honor of Stephen E. Elliott (1771–1830) United States banker, politician and amateur botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 40–80 cm long. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades 20–40 cm long, 2–4 mm wide. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 20–40 cm long, 0.5–0.6 of culm length. Primary panicle branches ascending, subdividing 2–4 times. Panicle branches stiff. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 9–25 mm long.

Fertile Spikelets. Spikelets comprising 8–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 5–12 mm long, 2 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, 0.7 mm long.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. Caroline Is (*). **North-central USA, South-central USA, Southeastern USA, Mexico.** Oklahoma. Texas. Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina. Northeast Mexico, Gulf (Mexico), Northwest Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica, Caribbean.** Belize, Honduras. Bahamas, Cuba, Dominican Republic, Haiti, Jamaica, Puerto Rico.

Neuvo Leon, Tamaulipas. Veracruz. Sinaloa. Michoacan, Oaxaca. Campeche, Chiapas, Quintana Roo, Tabasco.

Eragrostis elongata (Willd.) Jacq. *Eclog. Gram. t. 3.* (1813).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)* (as *E. diandra*), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from India. **Basionym or Replaced Name:** *Poa elongata* Willd., *Enum. Pl.* 1: 108 (1809). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: T: India (L).

Recent Synonyms: *Eragrostis diandra* (R.Br.) Steud., *Syn. Pl. Gram.* 279. (1854).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (369, Fig 298 & Pl. 14), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (125, Pl 36), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (567, Fig 113), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (251), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (374 & 400, Fig 67 & 71), D.Sharp & B.K.Simon, *AusGrass*. *Grasses of Australia*. CD-Rom Version 1.0. (2002), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (102), A.S.Hitchcock, *Manual of the Grasses of the West Indies* (1936) (43, Fig. 22 as *E. ekmanii*), S-L Chen et al, *Flora of China*, Illustrations, *Poaceae* (2007) (Fig. 665).

Images: D.Sharp & B.K.Simon, *AusGrass*. *Grasses of Australia*. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): L. elongated. Inflorescence elongated.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–60 cm long, 2–4 -noded. Lateral branches lacking. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades filiform, convolute, 10–20 cm long, 1–2 mm wide.

Inflorescence. Inflorescence a panicle. Panicle glomerate, linear, 8–16 cm long. Primary panicle branches 0.5–3.75 cm long. Panicle axis scabrous. Panicle branches bearing congested spikelets, scabrous. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 6–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate or ovate, laterally compressed, 3–6 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate or orbicular, 1.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Europe (*), Temperate Asia, Tropical Asia, Australasia, Pacific, South America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **China.** Hainan, China Southeast. **Indo-China, Malesia, Papuasias.** Andaman Is, Cambodia, Laos, Thailand, Vietnam. Malaya, Singapore, Moluccas. New Guinea West Papua (Irian Jaya). New Guinea. **Australia.** Western Australia, Northern Territory, South Australia, Queensland, New South Wales, Victoria. **Southwestern Pacific, North-central Pacific.** New Caledonia. Hawaii (*). **Mesoamerica, Caribbean.** Costa Rica. Cuba, Jamaica.

TDWG4. Fujian, Guangdong, Jiangxi. Kimberley, Ereman, South-West. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre, Southern. North, Central, South East, Inland. Coast, Tablelands, Western Slopes, Western Plains.

Eragrostis eriopoda Benth. *Fl. Austral.* vii. 648. (1878).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: A. *Cunningham s.n.*, Australia: N. Australia: Cygnet Bay, N. W. coast

ST: *Walcot s.n.*, Dampier's Archipelago.

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (370, Fig 299), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (123, Pl 35), J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (1161, Fig. 330), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler,, *Grasses of New South Wales*, 4th edn (2008) (251), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): Gk. erion, wool; pous, foot. Basal leaf-sheaths wooly.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Cataphylls evident. Butt sheaths woolly. Culms erect, 30–60 cm long, wiry. Culm-internodes scaberulous. Lateral branches lacking. Ligule a fringe of hairs. Leaf-blades spreading, 5–10 cm long, 2–3 mm wide, stiff.

Inflorescence. Inflorescence a panicle. Panicle open, linear or lanceolate or ovate, 11.5–20 cm long, 3–7.5 cm wide. Primary panicle branches appressed or ascending or spreading or reflexed, distant, 1 -nate, simple or sparsely divided, 2–6.5 cm long. Panicle branches scabrous. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 10–35 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, straight or curved, laterally compressed, 6–22 mm long, 2–3 mm wide, breaking up at maturity, rachilla persistent, retaining paleas, fragile above, with the distal florets disarticulating separately.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.75–2 mm long, 1 length of upper glume, membranous, 1-keeled, 3 -veined. Lower glume primary vein scaberulous. Lower glume surface asperulous. Lower glume apex obtuse. Upper glume ovate, 1.75–2 mm long, 0.66–0.75 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined. Upper glume primary vein scaberulous. Upper glume surface asperulous. Upper glume apex obtuse.

Florets. Fertile lemma ovate, 2–3 mm long, membranous, much thinner on margins, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent, midway between midvein and margin. Lemma surface smooth or asperulous. Lemma apex emarginate. Palea obovate. Palea keels thickened, scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ovoid, 0.75 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, South Australia, Queensland, New South Wales.

Kimberley, Ereman, South-West. Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre, Southern. North, Inland. Western Plains.

Eragrostis erosa Scribn. ex Beal. *Grasses N. Amer.* ii. 483 (1896).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mexico. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: C.G. Pringle 415, Oct 1885, Mexico: Chihuahua: Santa Eulalia Mountains (MSC; IT: MO-3728015, US-821925, US-1749578).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (98).

Illustrations (Journals): *Sida* (21: 1386, Fig.7A-C (2005)).

Derivation (Clifford & Bostock 2007): L. *erodo*, grow into. Apices of glumes irregularly toothed.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 70–110 cm long. Leaf-sheaths outer margin glabrous or hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades flat or involute, 15–30 cm long, 2 mm wide. Leaf-blade surface glabrous, hairless except near base. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 30–45 cm long, 15 cm wide, 0.33 of culm length. Primary panicle branches ascending or spreading, subdividing 2–3 times, 8–18 cm long. Panicle branches flexuous, glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 6–9 mm long, 1–3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.4 mm long, 0.8–0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute or acuminate. Upper glume ovate, 2.4–2.5 mm long, 0.75–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute or acuminate.

Florets. Fertile lemma ovate, 2.8–3 mm long, membranous, much thinner on margins, mid-green or yellow, tipped with last colour, keeled, lightly keeled, keeled above, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex erose, acute. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ellipsoid, 1.6 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. South-central USA, Mexico. New Mexico, Texas. Northeast Mexico, Northwest Mexico.

Coahuila, Chihuahua, Durango, Neuvo Leon, Tamaulipas, Zacatecas. Sonora.

Eragrostis exasperata Peter. *Fedde, Repert. Beih. xl. 1. Anhang*, 108 (1930).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Tanzania. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Peter 23568*, Tanzania (B (destroyed)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): inflorescence branches scabrid.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or decumbent, 15–70 cm long. Ligule a fringe of hairs. Leaf-blades 5–20 cm long, 2–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 7–25 cm long. Panicle branches glabrous or pilose. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 6–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 3–7 mm long, 2.5–3 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.5–2 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5–2 mm long, 1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, gibbous, 1.5–2 mm long, membranous, yellow or mid-green or purple, keeled, 3 -veined, 0–3 -veined. Lemma apex cuspidate. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.2–0.3 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.7 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, East tropical Africa, South tropical Africa. Burundi, Congo, Rwanda, DRC. Kenya, Tanzania, Uganda. Angola, Malawi, Zambia, Zimbabwe.

Eragrostis excelsa Griseb. *Cat. Pl. Cub.* 227. (1866).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Cuba. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *C. Wright 3425*, 1860–1864, Cuba (GOET; IT: BM, MO-2067269, NY, US-911718 (fragm.), US-911719 (fragm.), US-2767393 (fragm.)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. tall. Culms tall.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 100–200 cm long. Culm-internodes distally glabrous. Lateral branches lacking. Leaves basal and cauline. Leaf-sheaths without keel, glabrous on surface to pubescent, outer margin hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.2–0.3 mm long. Leaf-blades flat or involute, 40–60 cm long, 6–8 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 45–50 cm long, 20–30 cm wide. Primary panicle branches bearing spikelets almost to the base. Panicle branches glabrous in axils. Spikelets appressed, solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate or oblong, laterally compressed, 5–10.5 mm long, 1.5–2.2 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2–2.7 mm long, 0.75–1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 2–3.2 mm long, 0.9–1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2.2–3.2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scabrous. Lemma lateral veins distinct. Lemma apex acute. Palea 0.8–1 length of lemma. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.7–1 mm long, pallid or purple. Caryopsis with adherent pericarp, ovoid, trigonous, sulcate on hilar side, 1–1.2 mm long, obtuse.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. Mexico. Gulf (Mexico), Southeast Mexico. **Mesoamerica, Caribbean.** Belize. Bahamas, Cuba.

Veracruz. Campeche, Quintana Roo, Yucatan.

Eragrostis exelliana Launert. *Bol. Soc. Brot.*, 47: 347 (1974).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online.

TYPE from Malawi. T:<Type of Basionym>; *vide* TROPICOS and Kew Synonymy Database: Malawi: Nyika Plateau, 2300 m, 15 Mar 1961, *Robinson 4525* (HT: K; IT: BM, SRGH).

Illustrations (Books): G.V. Pope et al., *Flora Zambesiaca* 10 (2(1999):114, t. 36).

Derivation (Clifford & Bostock 2007): L. -ana, indicating connection. In honor of Arthur Wallis Exell (1901-). English botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms prostrate, 5–40 cm long. Ligule a fringe of hairs. Leaf-blades 0.5–13 cm long, 1–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, linear or lanceolate, 1–9 cm long, contracted about primary branches. Primary panicle branches 0.2–2 cm long, bearing spikelets almost to the base. Panicle branches stiff, glabrous or pilose. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 3–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 1.5–5 mm long, 1.5–3 mm wide, breaking up at maturity, rachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.5 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume surface glabrous or pilose (sparsely). Lower glume apex acute. Upper glume ovate, 1–1.5 mm long, 0.8–0.9 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume surface glabrous or pilose (sparsely). Upper glume apex acute.

Florets. Fertile lemma ovate or orbicular, 1.2–1.7 mm long, cartilaginous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea keels winged, narrowly winged, scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2, 0.5 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa, South tropical Africa. Tanzania. Malawi, Zambia.

Eragrostis exigua M. Lazarides. *Austral. Syst. Bot.*, 10(1): 118 (1997).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Northern Territory, Epenarra homestead: Latz 567 (CANB holo, BRI, DNA).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (371, Fig 300), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (251).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. wanting in size and number. Spikelets or inflorescence branches few.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms geniculately ascending, slender, 15–70 cm long, 1–3 -noded. Culm-internodes terete or channelled. Lateral branches fastigiate. Leaf-sheaths wider than blade at the collar. Leaf-sheath oral hairs lacking. Ligule an eciliate membrane, 0.3–0.5 mm long, entire or lacerate. Leaf-blades aciculate or linear or lanceolate, 2–5 mm wide. Leaf-blade surface scaberulous, rough adaxially. Leaf-blade margins cartilaginous, scabrous.

Inflorescence. Inflorescence a panicle. Panicle contracted, elliptic, loose, 18–36 cm long, 3–7 cm wide, 0.66–0.8 of culm length. Primary panicle branches 1–3(–5) -nate, whorled at lower nodes, rebranched near base, 4–8 cm long. Panicle branches scabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–2.5 mm long.

Fertile Spikelets. Spikelets comprising 3–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 0.8–2 mm long, 0.5–0.8 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes straight, 0.1–0.2 mm long.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume oblong or ovate, 0.4–0.6 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume surface asperulous, rough at apex. Lower glume apex emarginate or obtuse. Upper glume oblong or ovate, 0.4–0.6 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume surface asperulous, rough at apex. Upper glume apex emarginate or obtuse.

Florets. Fertile lemma elliptic or oblong, 0.5–0.7 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein thickened. Lemma lateral veins ribbed. Lemma apex truncate or obtuse. Palea oblanceolate, with flaps as wide as body, 2 -veined. Palea keels falling well short of apex, smooth. Palea apex obtuse or acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2, 0.1–0.2 mm long. Caryopsis with adherent pericarp, ellipsoid or obovoid, 0.3–0.5 mm long. Disseminule comprising a floret.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland, New South Wales, Victoria.

Kimberley, Ereman. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. North, Central. Western Plains.

Eragrostis falcata (Gaud.) Steud. *Nom. Bot.* ed.2 :563 (1840).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Poa falcata* Gaudich., *Voy. Uranie* 408, t. 25 (1830). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: "In Novae-Hollandiae ora occidentali (baie des Chiens-Marins), IT: *C. Gaudichaud-Beaupr s.n.*, Australia (L).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (371, Fig 301), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (127, Pl 37), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (252), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Hooker's Icones Plantarum* (t.2610 (1899) as *Pogonarthria*).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): spikelets curved.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths thickened and forming a bulb, pubescent. Culms 10–40 cm long, wiry. Ligule a fringe of hairs. Leaf-blades filiform, 2–8 cm long, 1 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, 5–15 cm long, 2–8 cm wide. Primary panicle branches spreading, 1.5–3 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–1 mm long.

Fertile Spikelets. Spikelets comprising 10–40 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, straight or curved, laterally compressed, compressed slightly, 5–15 mm long, 1 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate or oblong, 1.2 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate or oblong, 1.5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma oblong or ovate, 1.5–1.8 mm long, cartilaginous, much thinner above, much thinner on margins, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex obtuse. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, ovoid, 1 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, South Australia, Queensland, New South Wales, Victoria.

Kimberley, Eremean, South-West. Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre, Southern. North, Central, Inland. Western Plains.

Eragrostis fallax M. Lazarides. *Austral. Syst. Bot.*, 10(1): 120 (1997).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia, Barkly Tableland: *Kanis 1817* (CANB holo, K, L, NT, US).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (382, Fig 69), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Derivation (Clifford & Bostock 2007): L. deceptive. Closely resembling another species.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Cataphylls evident. Butt sheaths glossy, glabrous. Culms 60–90 cm long, 3–6 -noded. Culm-internodes terete or elliptical in section, purple, eglandular. Lateral branches lacking. Leaf-sheaths tight, eglandular, smooth, glabrous on surface. Ligule a fringe of hairs, 0.2–0.3 mm long. Leaf-blades flat or convolute, 15–30 cm long, 2–5 mm wide, coriaceous. Leaf-blade surface scabrous, rough adaxially, glabrous. Leaf-blade margins cartilaginous, eglandular, scabrous.

Inflorescence. Inflorescence a panicle, terminal or terminal and axillary. Peduncle eglandular. Panicle open, elliptic, dense or loose, 10–20 cm long, 4–6 cm wide. Primary panicle branches 2–5 cm long, naked below or bearing spikelets almost to the base. Panicle axis eglandular. Panicle branches eglandular, scabrous. Spikelets solitary. Fertile spikelets sessile or pedicelled. Pedicels absent or present, 0.3–12 mm long, eglandular.

Fertile Spikelets. Spikelets comprising 11–56 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or lanceolate, laterally compressed or subterete, acute or acuminate, 10–33 mm long, 2–2.3 mm wide, breaking up at maturity, rachilla persistent, retaining paleas. Rachilla internodes clavate, zig-zag, 0.6–0.7 mm long, obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate or ovate, 1.3–1.8 mm long, 0.66–0.75 length of upper glume, membranous or cartilaginous, without keels or 1-keeled, 0–1 -veined. Lower glume lateral veins absent. Lower glume apex acute or acuminate. Upper glume lanceolate or ovate, 1.8–2.6 mm long, 0.75 length of adjacent fertile lemma, membranous or cartilaginous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute or acuminate.

Florets. Fertile lemma lanceolate, gibbous, 2.3–3.3 mm long, membranous or cartilaginous, much thinner on margins, keeled, 3(–5) -veined, 0–3 -veined or more than 3-veined. Lemma lateral veins midway between midvein and margin. Lemma apex emarginate or acute or acuminate, mucicous or mucronate. Palea elliptic or oblanceolate, with flaps narrower than body, bowed outwards, 0.5–0.75 length of lemma, hyaline, 2 -veined. Palea keels thickened, scaberulous. Palea apex truncate or obtuse, ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.2–0.3 mm long, retained within floret or eventually exerted. Caryopsis with adherent pericarp, ellipsoid or oblong or ovoid, isodiametric, 0.4–0.6 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland.

Kimberley. Darwin & Gulf, Victoria R & Barkly Tableland. North, Central.

Eragrostis fastigiata Cope. *Kew Bull.* 53:152 (1998).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Malawi. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Malawi, Mt. Mulanje: Hilliard & Burt 6394 (K holo).

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):117, t. 37).

Illustrations (Journals): *Kew Bulletin* (154, fig.5 (1998)).

Derivation (Clifford & Bostock 2007): *L. fastigio*, sharpen to a point. Panicle branches or culms held erect.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous, persistent and investing base of culm, with compacted dead sheaths. Culms erect, 37–75 cm long. Culm-internodes eglandular. Culm-nodes glabrous. Lateral branches fastigiate. Leaf-sheaths longer than adjacent culm internode, eglandular, without keel, glabrous on surface. Ligule a fringe of hairs. Leaf-blades curved or flexuous, filiform, involute, 10–30 cm long, 0.5–0.8 mm wide, eglandular. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or oblong or ovate, dense, 7.5–11.5 cm long, contracted about primary branches. Panicle branches eglandular, glabrous in axils, with insignificant pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–1 mm long, eglandular.

Fertile Spikelets. Spikelets comprising 4–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 2.8–3.6 mm long, 2–3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate or oblong, 1.7–2.3 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume surface asperulous, rough on flanks. Lower glume apex acute. Upper glume lanceolate or oblong, 1.7–2.3 mm long, 0.5–0.66 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume margins scaberulous. Upper glume apex acute.

Florets. Fertile florets divergent. Fertile lemma elliptic, 2–2.3 mm long, membranous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma surface scaberulous. Lemma apex acute. Palea 2 -veined. Palea keels scabrous. Palea surface scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1 mm long. Caryopsis with adherent pericarp, ellipsoid or oblong, 0.9 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Malawi.

Eragrostis fauriei Ohwi. *Bot. Mag., Tokyo*, 1v. 278 (1941).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), T.Koyama, *Grasses of Japan and its neighboring regions* (1987).

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Taiwan: in montibus Shinten, *U. Faurie* 153 (HT: ?).

Illustrations (Books): C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (402).

Derivation (Clifford & Bostock 2007): in honor of Urbain Jean Faurie (1847–1914) French cleric and amateur botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms 30–60 cm long. Culm-internodes smooth, distally glabrous. Lateral branches lacking. Leaf-sheaths mostly shorter than adjacent culm internode, glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.2 mm long. Leaf-blades 5–15 cm long, 2–5 mm wide, stiff. Leaf-blade surface glabrous or pilose, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 10–20 cm long, 5–8 cm wide. Primary panicle branches ascending, 1 -nate. Panicle branches glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate or oblong, laterally compressed, 5–10 mm long, 2.2–2.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes similar, shorter than spikelet. Lower glume ovate, 1–1.5 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 1.5–1.7 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 1.8–2 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma midvein scabrous. Lemma lateral veins distinct. Lemma surface punctate. Lemma apex acute. Palea bowed outwards, 2 -veined. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.5 mm long. Caryopsis with adherent pericarp, 0.7 mm long.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China, Eastern Asia. Taiwan.

Eragrostis fenshamii B.K.Simon. *Fl. Australia* 44B:460 (2005).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Australia, Queensland. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Queensland, Bundoona: Fensham 3705 (BRI holo).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (407, Fig 72).

Derivation (Clifford & Bostock 2007): In honor of Roderick John Fensham (1960-) Australian ecologist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes elongated. Culms 30–50 cm long. Ligule a fringe of hairs, 0.1 mm long. Leaf-blades 3–4 mm wide. Leaf-blade surface smooth, glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate, 17–27 cm long, 5–13 cm wide. Panicle branches with prominent pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 4–9 mm long, 1.8–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, becoming fragile after lemmas shed. Rhachilla internodes zig-zag, eventually visible between lemmas.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 1.2–1.6 mm long, 0.66–0.75 length of upper glume, chartaceous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.8–2.2 mm long, 0.9 length of adjacent fertile lemma, chartaceous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma lanceolate, 2–2.6 mm long, cartilaginous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct, close to margins. Lemma apex acute. Palea lanceolate, 1 length of lemma. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.8 mm long. Caryopsis with adherent pericarp, ellipsoid, isodiametric, 0.8 mm long, light brown, striate, obtuse.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland.

Inland.

Eragrostis ferruginea (Thunb.) Beauv. *Agrost.* 71. (1812).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), T.Koyama, *Grasses of Japan and its neighboring regions* (1987).

TYPE from Japan. **Basionym or Replaced Name:** *Poa barbata* Thunb., *Fl. Jap.* 50. t. 10 (1784). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Japan: Coll?.

Recent Synonyms: *Eragrostis mairei* Hack., *Fedde, Repert. Nov. Sp.* 8: 523 (1910).

Illustrations (Books): T.Koyama, *Grasses of Japan and its neighbouring regions* (1987) (249, Fig 92), C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (404), C-C Hsu, *Taiwan Grasses* (1975), H.J.Noltie, *The Grasses of Bhutan* (2000) (659, Fig. 33), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 673).

Derivation (Clifford & Bostock 2007): L. light-brown. Glumes and/or lemmas invested in light-brown hairs.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms 45–60 cm long. Culm-internodes smooth or scaberulous. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs lacking. Ligule a fringe of hairs. Leaf-blades 7.5–12 cm long, 2–7 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, 15–25 cm long, 4–8 cm wide. Primary panicle branches 4–8 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 7–9 mm long, glandular.

Fertile Spikelets. Spikelets comprising 5–13 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or lanceolate, laterally compressed, 6–10 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.2–2 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute or acuminate. Upper glume ovate, 1.8–2.8 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute or acuminate.

Florets. Fertile lemma oblong, 2–3 mm long, membranous, dark green or purple, keeled, lightly keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex obtuse. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3. Caryopsis with adherent pericarp, ovoid, 2 mm long, dark brown, truncate.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. **China, Eastern Asia.** China South Central, China North-Central, China Southeast, Tibet. Japan, Korea, Taiwan. **Indian Subcontinent, Indo-China.** Eastern Himalaya, Nepal. Laos, Myanmar, Vietnam.

TDWG4. Beijing, Shaanxi, Shandong. Anhui, Fujian, Henan, Zhejiang. Guizhou, Hubei, Yunnan. Bhutan, Sikkim.

Eragrostis filicaulis M. Lazarides. *Austral. Syst. Bot.*, 10(1): 121 (1997).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia, Queensland. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Queensland, Esmeralda homestead: *Lazarides 4734* (CANB holo).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (374 & 379, Fig 67 & 68), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 173, Fig.3 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. filum, thread; caulis, stem.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Cataphylls evident. Butt sheaths glossy. Culms slender, 11–60 cm long, 2–3 -noded. Culm-internodes eglandular. Leaf-sheaths tight, as wide as blade at the collar, eglandular, outer margin glabrous or hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.2–0.3 mm long. Leaf-blades straight or curled or flexuous, filiform, conduplicate or involute or convolute, 1 mm wide. Leaf-blade surface scabrous, rough adaxially, glabrous or pilose or hirsute, hairy adaxially. Leaf-blade margins eglandular.

Inflorescence. Inflorescence a panicle. Peduncle eglandular. Panicle contracted or spiciform, linear or oblong, 5–13 cm long, 1.5–4 cm wide. Primary panicle branches 1–2 cm long. Panicle axis eglandular. Panicle branches eglandular, glabrous in axils or bearded in axils. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 14–38 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed or subterete, 6.5–18 mm long, 1–1.5 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes thickened, zig-zag, 0.4–0.5 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume linear or lanceolate, 1–1.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume surface asperulous. Lower glume apex obtuse. Upper glume linear or lanceolate, 1–1.5 mm long, 0.9 length of adjacent fertile lemma, membranous, without keels or 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume surface asperulous. Upper glume apex obtuse.

Florets. Fertile florets free at tip (saw-toothed). Fertile lemma lanceolate, 1.4–1.7 mm long, membranous or cartilaginous, keeled, 3 -veined, 0–3 -veined. Lemma surface granulate. Lemma apex obtuse. Palea oblong or oblanceolate, with flaps narrower than body, hyaline, 2 -veined. Palea keels falling well short of apex, scaberulous, adorned above. Palea apex emarginate, ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2, 0.2–0.3 mm long, purple. Caryopsis with tardily free pericarp, ellipsoid or ovoid or orbicular, dorsally compressed, 0.3–0.5 mm long, pallid or light brown, striate.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. **Australia.** Western Australia, Northern Territory, Queensland.

Kimberley. Darwin & Gulf, Central Australia. North, Central.

Eragrostis fimbrillata Cope. *Kew Bull.* 53:146 (1998).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Zambia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Zambia: Copperbelt Distr.: Kitwe, 30 Aug 1963, *Fanshawe 7956* (HT: K; IT: SRGH).

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):98, t. 33).

Illustrations (Journals): *Kew Bulletin* (53: 142, Fig.3 (1998)).

Derivation (Clifford & Bostock 2007): *L. fimbriae*, thread; *-illum*, diminutive; *-ata*, indicating likeness. Lemma bears slender hairs.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Butt sheaths glabrous, persistent and investing base of culm, with compacted dead sheaths. Culms erect, 15–35 cm long. Culm-internodes eglandular. Lateral branches lacking. Leaf-sheaths longer than adjacent culm internode, eglandular, without keel, glabrous on surface. Ligule a fringe of hairs. Leaf-blades filiform, involute, 7–13 cm long, 0.5 mm wide, eglandular. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or oblong, 7–12 cm long. Panicle branches eglandular, glabrous in axils, with insignificant pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 3–12 mm long.

Fertile Spikelets. Spikelets comprising 9–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 4.5–7.5 mm long, 2.5–2.8 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes similar, shorter than spikelet. Lower glume ovate, 1.3–1.7 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume surface asperulous. Lower glume apex acute. Upper glume lanceolate, 1.3–1.7 mm long, 0.5–0.66 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume surface asperulous. Upper glume apex acute.

Florets. Fertile florets divergent. Fertile lemma elliptic or oblong, 2–2.3 mm long, membranous, purple or pallid or purple, tipped with last colour, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma surface scaberulous, rough above. Lemma apex obtuse, pubescent. Palea 2 -veined. Palea keels scabrous. Palea apex ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1.2–1.7 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Zambia.

Eragrostis flavicans Rendle. *Cat. Welw. Afr. Pl.* ii. 253. (1899).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Weleitsch 2735*, Pungo Andonge

ST: *Welwitsch 2734*, Pungo Andonge

ST: *Welwitsch 2818*, Pungo Andongo.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. flaveo*, be yellow; *-icans*, becoming. Plant greenish-yellow to yellow throughout.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 20–60 cm long. Ligule a fringe of hairs. Leaf-blades flat, 3–9 cm long, 2–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, linear, 3–17 cm long, contracted about primary branches. Primary panicle branches spreading, simple or indistinct the panicle almost racemose, 0.5–1 cm long, bearing spikelets almost to the base. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 2–9 mm long, 2–4 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume ovate, 1.5–2 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume

ovate, 1.5–2 mm long, 0.8–1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets imbricate to tip. Fertile lemma orbicular or oblate, 2 mm long, cartilaginous, yellow, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea orbicular. Palea keels winged, scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.5–0.6 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.5 mm long, reticulate.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, East tropical Africa, South tropical Africa. Congo, DRC. Tanzania. Angola, Malawi, Zambia.

Eragrostis fosbergii Whitney. *Occas. Papers Bishop Mus., Honolulu*, xiii. 75 (1937).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Hawaii. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *F.R. Fosberg 9085*, 8 Jan 1933, Hawaii: Oahu I., Honolulu Co. (BISH; IT: US-1648299, US-2476508 (fragm.)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Francis Raymond Fosberg (1908-) United States botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths green or purple. Culms geniculately ascending, 60–100 cm long. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs scanty or ciliate. Ligule a fringe of hairs, 0.3 mm long. Leaf-blades 40–60 cm long, 5–10 mm wide, coriaceous, stiff. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, pyramidal, 20–40 cm long. Primary panicle branches ascending, bearing spikelets almost to the base. Panicle branches stiff, scaberulous, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 3–5(–10) fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–5 mm long, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes eventually visible between lemmas, scaberulous.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2–3 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume margins ciliate. Lower glume apex acuminate. Upper glume lanceolate, 2–3 mm long, 0.75–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume margins ciliate. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 2.5–3 mm long, chartaceous, light green or dark green, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma margins eciliate or ciliate. Lemma apex acuminate. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Pacific.

Country /Province /State. North-central Pacific. Hawaii.

Eragrostis fracta S.C. Sun & H.Q. Wang. *Acta Phytotax. Sin.*, 19(4): 513 (1981).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from China. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Yunnan: Jiashui, 21 March 1941, *S.E. Liu 18365* (HT: PE).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): A reference to the method of distribution of the spikelet.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 60 cm long, 2.5 mm diam., 2–3 -noded. Leaf-sheaths loose, longer than adjacent culm internode, glabrous on surface. Ligule a fringe of hairs, 1 mm long. Leaf-blades flat or involute, 8–16 cm long, 2–3 mm wide. Leaf-blade surface pilose, hairy adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 30–40 cm long. Primary panicle branches 1 -nate. Panicle branches capillary, flexuous, glabrous in axils. Spikelets pendulous, solitary. Fertile spikelets pedicelled. Pedicels present, 10–20 mm long.

Fertile Spikelets. Spikelets comprising 10–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets linear or oblong, laterally compressed, 10–20 mm long, 3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 2 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 2.5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic, 2.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute or acuminate. Palea 2 -veined. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3. Caryopsis with adherent pericarp, ellipsoid.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central.

TDWG4. Yunnan.

Eragrostis frankii Steud. *Syn. Pl. Gram.* 278. (1854).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: *Frank, in C.A.Meyer (Ind. sem. H. Petrop. sub nr. 2454)*, USA: Ohio (BM; US-2891472 (fragm.)).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (80).

Derivation (Clifford & Bostock 2007): in honor of Joseph C. Frank (1782–1835) German botanist and physician.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms decumbent, 15–35 cm long. Lateral branches ample. Leaf-sheaths longer than adjacent culm internode, glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.5–2.5 mm long. Leaf-blades 3–15 cm long, 1–2.5 mm wide. Leaf-blade surface scabrous, rough adaxially, glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, 6–13 cm long, 0.5 of culm length. Spikelets spreading, solitary. Fertile spikelets pedicelled. Pedicels present, 1–3 mm long.

Fertile Spikelets. Spikelets comprising 2–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 2–3 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.8–1 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1–1.4 mm long, 0.75–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.2–1.3 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 0.2 mm long. Caryopsis with adherent pericarp, ovoid, 0.6 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. North-central USA, Northeast USA, Southeastern USA. Kansas, Nebraska, Oklahoma. Connecticut, Indiana, Maine, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia. Alabama, Georgia, Mississippi, North Carolina, South Carolina.

Eragrostis friesii Pilger. *R. E. Fries, Wiss. Ergebn. Schwed. Rhod.-Kongo-Exped.* 1911–12, i. 212 (1915).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Zimbabwe. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Nordost-Rhodesia am Bangweolo-, *Kamindas 957*.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Thore Christian Elias Fries (1886–1930) Swedish botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 60–100 cm long. Ligule a fringe of hairs. Leaf-blades 20–30 cm long, 2–3 mm wide. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 10–25 cm long, evenly furnished. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–25 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–10 mm long, 1.7–2 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.3 mm long, 0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.2–1.5 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent. Fertile lemma ovate, 1.2–2 mm long, membranous, dark green or grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Palea keels scabrous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3. Caryopsis with adherent pericarp, ellipsoid, 0.75 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa. Angola, Zambia, Zimbabwe. Namibia.

Eragrostis gangetica (Roxb.) Steud. *Syn. Pl. Gram.* 266. (1854).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)*, N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from India. **Basionym or Replaced Name:** *Poa gangetica* Roxb., *Fl. Ind., ed. 1820* 1: 341 (1820). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Roxburgh s.n.*, India: native of the banks of the Ganges, but scarce (K; IT: BM).

Recent Synonyms: *Eragrostis stenophylla* Hochst. ex Miq., *Anal. Bot. Ind.* 2: 27 (1851).

Illustrations (Books): R.M.Pollhill, F.T.E.A., *Gramineae* (2(1974):190, Fig.60), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (151, Fig 50), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (128, Fig 51), K.M.Matthew, *Further Illustrations on the Flora of Tamilnadu Carnatic* (1988) (Pl. 774), H.J.Noltie, *The Grasses of Bhutan* (2000) (661, Fig. 34), H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005) (69, Fig. 63), M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (88).

Derivation (Clifford & Bostock 2007): L. -ica, belonging to. From Ganges River, India.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms geniculately ascending, 15–60 cm long. Ligule a fringe of hairs. Leaf-blades 3–15 cm long, 1–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 6–20 cm long. Primary panicle branches 1 -nate. Panicle branches straight, glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, glabrous.

Fertile Spikelets. Spikelets comprising 6–35 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–10 mm long, 1–1.5 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.6–1.8 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 0.6–1.8 mm long, 0.5–1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent, free at tip. Fertile lemma ovate, 1.2–1.7 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2, 0.2 mm long. Caryopsis with adherent pericarp, orbicular, 0.4–0.6 mm long. *N* = 10 (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa, Tropical Asia, North America, South America.

Country /Province /State. West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean. Burkina, Gambia, Ghana, Guinea-Bissau, Ivory Coast, Liberia, Mali, Mauritania, Nigeria, Senegal, Sierre Leone, Togo.

Central African Republic, Cameroon, Gabon, DRC. Ethiopia (inc. Eritrea), Sudan. Tanzania, Uganda. Malawi, Mozambique, Zambia, Zimbabwe. Namibia. Madagascar. **Indian Subcontinent, Indo-China, Malesia.** Assam, Bangladesh, Eastern Himalaya, Sri Lanka. Laos, Myanmar, Thailand, Vietnam. Borneo, Malaya, Singapore. **Southeastern USA.** Alabama, Florida, Mississippi. **Mesoamerica, Northern South America.** Belize. Venezuela.

TDWG4. Bhutan. Daman, Karnataka, Kerala. Madhya Pradesh, Maharashtra, Orissa, Tamilnadu, Uttah Pradesh, West Bengal. Himachal Pradesh.

Eragrostis geniculata Nees & Meyen. *Nov. Act. Nat. Cur. xix. Suppl. i.* 203. (1843).

Regarded by K as a synonym (*E. cylindrica*).

TYPE from China. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Guangdong: Hong Kong, Syng-moon Promontory, July ???, *F.J.F. Meyen s.n.* (HT: ?).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. genus, knee; -ulus, diminutive. -ata, possessing. Plants with bent culms or awns.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms geniculately ascending, 15–30 cm long. Leaves mostly basal. Leaf-sheaths outer margin hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades 5–8 cm long, 2–3 mm wide. Leaf-blade surface pilose, sparsely hairy, hairy on both sides. Leaf-blade apex attenuate, pungent.

Inflorescence. Inflorescence a panicle. Panicle open, linear, 3–8 cm long. Primary panicle branches bearing 3–7 fertile spikelets on each lower branch. Panicle axis scaberulous. Panicle branches scaberulous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–2 mm long.

Fertile Spikelets. Spikelets comprising 6–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–8 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.3–1.5 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 2 mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma lanceolate, 2.2–2.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex obtuse, mucronate. Palea 1.8–2 mm long. Palea keels scaberulous. Palea apex dentate, 3 -fid. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers oblong, 0.6–0.7 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. China, Eastern Asia. Hainan, China Southeast. Taiwan. **Indian Subcontinent.** Nepal.

Eragrostis georgii A. Cheval. *Bull. Mus. Hist. Nat. Paris, Ser. 2, xx.* 471 (1948).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Gabon. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Gabon, Ligania to Digoungou: Le Testu 1597 (K iso).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of George Forrest (1873–1932) Scottish-born traveller and plant collector.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Rhizomes elongated. Culms 20 cm long. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs. Leaf-blades filiform, involute, 5–10 cm long, 0.5 mm wide.

Inflorescence. Inflorescence a panicle, comprising 3–7 fertile spikelets. Panicle open, elliptic, 3–4 cm long, bearing few spikelets. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 20–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 15–25 mm long, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent, free at tip. Fertile lemma elliptic, 3 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acuminate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa. Gabon.

Eragrostis glandulosa L. H. Harvey. *Bull. Torr. Bot. Cl.* 1 i. 406 (1954).

Regarded by K as a synonym (*E. mexicana*).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mexico. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Y. Mexia 8774*, 9 Nov 1937, Mexico: Guerrero: Sierra Madre del Sur, north of Rmo Balsas, Temisco, Barranca de la Suriana, streambank, alt. 312 m (US-1724746; IT: MO-1269264, US-1834505).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. glans*, gland; -ula, diminutive; -osa, abundance. With small glands especially on the leaf-blades.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, robust, 70–200 cm long. Lateral branches sparse, arising from lower culm. Leaf-sheaths longer than adjacent culm internode, glandular, hispid, with tubercle-based hairs, outer margin hairy. Ligule a fringe of hairs. Leaf-blades flat or conduplicate or involute, 35–50 cm long, 6–14 mm wide. Leaf-blade midrib conspicuous. Leaf-blade surface scabrous, rough on both sides.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 35–40 cm long, 20–35 cm wide. Primary panicle branches ascending or spreading, 10–15 cm long. Panicle axis scabrous. Panicle branches flexuous, glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, flexuous, 3–10 mm long.

Fertile Spikelets. Spikelets comprising 2–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or lanceolate or ovate, laterally compressed, 2.2–5 mm long, 1–2 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 1.2–1.6 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 1.2–1.6 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.4–1.8 mm long, 1.2 mm wide, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scabrous. Lemma lateral veins prominent. Lemma apex acute. Palea 1 length of lemma. Palea keels smooth or scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.8–1 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.8 mm long, light brown.

Distribution (TDWG). Continent. North America and South America.

Country /Province /State. Mexico. Central Mexico, Northeast Mexico, Southwest Mexico. Mesoamerica. El Salvador, Guatemala.

TDWG4. Distrito Federal, Mexico State, Morelos. Durango, Tamaulipas, Zacatecas. Guerrero, Jalisco, Nayarit, Oaxaca. Chiapas.

Eragrostis glandulosipedata De Winter. *Bothalia*, vii. 469 (1961).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: South Africa: Transvaal.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. glandulosa*, possessed of abundant glands; pes, foot; -ata, possessing. Pedicels with abundant glands.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, 40–100 cm long, 2–4 -noded. Culm-internodes glandular. Leaf-sheaths glandular, glabrous on surface or pilose, with tubercle-based hairs. Ligule a fringe of hairs. Collar pubescent. Leaf-blades 15–30 cm long, 3–5.5 mm wide. Leaf-blade surface scaberulous, rough adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, 6–20 cm long. Primary panicle branches whorled at lower nodes. Panicle branches multilateral or secund. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 4–5 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets disarticulating separately.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma oblong or ovate, 1.5–1.7 mm long, membranous, dark green or grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins ribbed. Lemma surface scaberulous. Lemma apex obtuse. Palea keels scabrous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.7–1 mm long. Caryopsis with adherent pericarp, oblong, 0.6–0.9 mm long, pallid or light brown. Embryo 0.5 length of caryopsis. Hilum punctiform.

Distribution (TDWG). Continent. Europe (*), Africa.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **South tropical Africa, Southern Africa.** Angola, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, Gauteng.

Eragrostis glishra Launert. *Bol. Soc. Brot., Ser. 2*, v. 21 (1961).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Zimbabwe. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Zimbabwe, Hwange: Eyles 8027 (SRGH holo).

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):56, t. 23).

Derivation (Clifford & Bostock 2007): Gk. glishros, sticky. Plant viscid.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Cataphylls evident. Rhizomes elongated. Butt sheaths coriaceous, glossy, persistent and investing base of culm, with compacted dead sheaths. Basal innovations extravaginal. Glands sunken crateriform. Culms erect or geniculately ascending, 20–40 cm long. Leaf-sheaths glandular, viscid, glabrous on surface or pubescent. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs. Leaf-blades tortuous, flat or involute, (2–)3.5–9(–13) cm long, 2.5–5 mm wide, glandular. Leaf-blade surface glabrous or pubescent. Leaf-blade margins smooth or scaberulous.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, dense, 3–10 cm long, 2.5–4.5 cm wide. Primary panicle branches 1 -nate. Panicle axis scaberulous. Panicle branches glandular, viscid, scaberulous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, linear, 2–3 mm long, scaberulous.

Fertile Spikelets. Spikelets comprising 5–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 5–10 mm long, 3 mm wide, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 2 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 2 mm long, 0.9–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma oblong or ovate, 1.8–2 mm long, membranous, purple, glandular on veins, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Palea 2 mm long. Palea keels ciliolate, with hairs 0.6 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1 mm long. Caryopsis with adherent pericarp, ellipsoid.

Distribution (TDWG). Continent. Africa.

Country /Province /State. **South tropical Africa.** Zimbabwe.

Eragrostis gloeodes Ekman. *Arkiv Bot. Stockh.* x. No. 17, 38 (1911).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *O. Malme* 2784, 2 Jan 1903, Brazil: Matto Grosso: Porto Murtinho (S; IT: US-3274383 (fragm. ex S)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. gloios, sticky; -odes, resembling. Sticky at the nodes.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 30–40 cm long, 4–5 -noded. Culm-internodes glandular (below nodes), distally glabrous. Lateral branches lacking. Leaf-sheaths viscid, keeled, striately veined, glabrous on surface. Ligule a fringe of hairs. Leaf-blades convolute, 9–18 cm long, 2–5 mm wide, stiff. Leaf-blade surface glabrous. Leaf-blade margins scabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle open, pyramidal, 15–30 cm long, 15–25 cm wide. Primary panicle branches 2–3 -nate. Panicle axis glandular. Panicle branches scaberulous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 9–11 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 6–7 mm long, 1–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.8 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.8 mm long, 0.5 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.6 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scabrous. Lemma lateral veins prominent. Lemma apex acute. Palea 1.5 mm long. Palea keels scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ellipsoid.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil. Brazil West Central.

Eragrostis gloeophylla S.M. Phillips. *Kew Bull.*, 42(4): 929 (1987).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Somalia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Somalia: Roffey 60037/3 (K holo).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms 4–45 cm long. Leaf-sheaths glandular, viscid, pilose, with tubercle-based hairs. Ligule a fringe of hairs. Leaf-blades flat or involute, 1–10 cm long, 1–6 mm wide, viscid. Leaf-blade surface pilose, hairy abaxially, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear or oblong, 2–10 cm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 6–19 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–16 mm long, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets disarticulating into irregular segments or falling as a whole.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.5–2.5 mm long, 0.7–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 2–3 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent. Fertile lemma oblong, 2–3.2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex truncate. Palea 2 -veined. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.3–0.5 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.5 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa. Ethiopia (inc. Eritrea), Somalia.

Eragrostis glutinosa (Sw.) Trin. *Mem. Acad. Petersb. Ser. VI. i. 397.* (1831).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Jamaica. **Basionym or Replaced Name:** *Poa glutinosa* Sw., *Prodr.* 26 (1788)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: 18 Sep 1803, West Indies (LE-TRIN-2629.01 a (fragm.), US-2891482 (fragm. ex LE-TRIN, fragm. ex S ex hb. Cassbram from Swartz)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. gluten, glue; -osa, abundance. Leaves sticky.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Glands annular. Culms erect or geniculately ascending, 10–45 cm long. Culm-internodes glandular (below nodes). Leaf-sheaths viscid. Leaf-sheath oral hairs woolly. Ligule a fringe of hairs, 0.1 mm long. Leaf-blades involute, 4.5–10 cm long, 1 mm wide, viscid. Leaf-blade surface scaberulous, glabrous or pilose. Leaf-blade margins ciliate.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, 5.5–15 cm long, 1.5–5.5 cm wide. Primary panicle branches ascending or spreading, simple, 0.5–3 cm long. Panicle axis scabrous, with scattered hairs or glabrous. Panicle branches stiff, viscid, scabrous, with scattered hairs or glabrous, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.4–0.8 mm long, scabrous.

Fertile Spikelets. Spikelets comprising 6–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 3–5 mm long, 1 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume ovate, 1–1.2 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 1.2–1.4 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute or acuminate.

Florets. Fertile lemma ovate, 1.4–1.6 mm long, 1.2 mm wide, cartilaginous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scabrous. Lemma lateral veins prominent. Lemma apex acute. Palea 1 length of lemma. Palea keels ciliate, with hairs 0.3 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, oblong, 0.4–0.6 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Caribbean. Cuba, Jamaica.

Eragrostis grandis Hillebr. *Fl. Haw. Isl.* 528. (1888).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Hawaii. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: High mountains of Molokai

ST: E. Maui

ST: W. Maui.

Illustrations (Books): W.L.Wagner et al., *Manual of the Flowering Plants of Hawai'i*, Vol. 2 (1990) (1539, Pl. 227).

Derivation (Clifford & Bostock 2007): L. tall. Plants robust with tall culms.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms erect, robust, 100–200 cm long, 10–20 mm diam. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs. Leaf-blades erect, 5–10 mm wide, coriaceous, stiff. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, 25–50 cm long. Primary panicle branches ascending, whorled at most nodes, bearing spikelets almost to the base. Panicle branches scabrous, rough distally, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1 mm long.

Fertile Spikelets. Spikelets comprising 5–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 5–9 mm long, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes 0.8 mm long, eventually visible between lemmas, scaberulous.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2.5–3 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 2.5–3 mm long, 0.75–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 3 mm long, chartaceous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins obscure. Lemma apex acute or acuminate. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). **Continent.** Pacific.

Country /Province /State. **North-central Pacific.** Hawaii.

Eragrostis guatemalensis J.T. Witherspoon. *Ann. Missouri Bot. Gard.*, 64(2): 324 (1977).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Guatemala. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Guatemala, *Johnston 930* (HT: F).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From Guatemala.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 65–115 cm long. Culm-internodes distally glabrous. Lateral branches lacking. Leaves mostly basal. Leaf-sheaths without keel, pilose, with tubercle-based hairs. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.3–0.4 mm long. Leaf-blades flat or involute, 10–22 cm long, 2–5 mm wide. Leaf-blade surface pilose, hairy adaxially or on both sides, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 24–30 cm long, 12–21 cm wide. Panicle branches bearded in axils. Spikelets spreading, solitary. Fertile spikelets pedicelled. Pedicels present, 2–3 length of fertile spikelet.

Fertile Spikelets. Spikelets comprising 3–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 3.5–7 mm long, 1.2–2.1 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1–1.5 mm long, 0.66–0.75 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5–2 mm long, 0.75 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2–2.4 mm long, membranous, without keel, 3 -veined, 0–3 -veined. Lemma midvein scabrous. Lemma lateral veins obscure. Lemma margins pubescent. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.3–0.4 mm long, purple. Caryopsis with adherent pericarp, oblong, trigonous, sulcate on hilar side, 0.6–0.8 mm long.

Distribution (TDWG). **Continent.** North America, South America.

Country /Province /State. **Mexico.** Central Mexico, Southeast Mexico. **Mesoamerica, Northern South America.** Guatemala. French Guiana, Guyana, Venezuela.
Mexico State, Puebla. Chiapas.

Eragrostis guianensis Hitchcock. *Contrib. U. S. Nat. Herb.* xxiii. 454 (1922).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Guyana. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *G.S. Jenman 5970*, Oct. 1888, Guyana: Rupununi River, Kwaimatta (US-1039337; IT: K, W, US-1126593 (fragm.)).

Illustrations (Books): J.A.Steyermark et al, *Flora of the Venezuelan Guayana* Vol. 8 (2004) (102, Fig. 65), E.Judziwicz, *Flora of the Guianas*, 187. *Poaceae* (1990) (Fig. 55).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From British Guiana, now Guyana.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms 13–25 cm long. Leaves mostly basal. Ligule a fringe of hairs, 0.2 mm long. Leaf-blades curled, filiform, involute, 0.6–1 cm long, 1–2 mm wide. Leaf-blade surface pilose.

Inflorescence. Inflorescence a panicle. Peduncle 5–10 cm long. Panicle open, ovate, 6–15 cm long, 3–7 cm wide, bearing few spikelets. Primary panicle branches ascending, bearing 2–3 fertile spikelets on each lower branch. Panicle branches glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 5–10 mm long.

Fertile Spikelets. Spikelets comprising 19–55 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 7–25 mm long, 1.5–2.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.6 mm long, 0.8–1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1–1.6 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins prominent. Lemma apex obtuse or acute. Palea bowed outwards. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2, 0.1–0.5 mm long. Caryopsis with adherent pericarp, ovoid, 0.3 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Northern South America, Brazil. French Guiana, Guyana, Venezuela. Brazil North.

Amazonas, Acre, Rondonia.

Eragrostis gummiflua Nees. *Fl. Afr. Austr.* 393. (1841).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: 4 IT: *Drige s.n.*, Cap. b. sp. (LE). 3 spec. Herb. Fischer; 1 sp. Herb. Seidlitz.

IT: *Eckl. & Zeyh.*, Cap. b. spei. (LE).

ST: *Pauli Mare s.n.*, Ad flumen Zwartkopsrivier

ST: *Ecklon s.n.*, In ipso huius fluminis alvec cenfragose cum Leersia oryzoide (Uitenhage)

ST: *Drige s.n.*, Ad Zwartekey fluvium in planitie graminosa... in ripa Key et Basche fluviorum.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (151, Fig 50).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): *L. gummius*, containing gum; fluo, flow. Leaf-sheaths sticky.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Glands elongated. Culms 30–90 cm long. Culm-internodes glandular. Leaf-sheaths glandular, viscid. Ligule a fringe of hairs. Leaf-blades filiform, involute, 25–50 cm long, 2–4.5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 10–30 cm long, contracted about primary branches. Primary panicle branches bearing spikelets almost to the base. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 2.5–4 mm long, 1–1.8 mm wide, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex obtuse. Palea keels scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.5–0.8 mm long. Caryopsis with adherent pericarp, ellipsoid or oblong, 0.4–0.5 mm long.

$2n = 40$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa, Western Indian ocean. Mozambique, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Lesotho, Northern Cape, Western Cape, Eastern Cape. Madagascar.

Eragrostis habrantha Rendle. *Cat. Welw. Afr. Pl.*2: 246. (1899).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Huilla: In thicket-grown fields, no longer cultivated, near Lopollo, *Welwitsch 7493*.

Illustrations (Books): No illustration found (BKS).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): Gk. habros, delicate; anthos, flower. Spikelets minute.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 50–100 cm long. Leaf-sheaths eglandular or glandular. Ligule a fringe of hairs. Leaf-blades involute, 5–10 cm long, 2–5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, effuse, 20–25 cm long. Primary panicle branches whorled at lower nodes, profusely divided. Panicle branches capillary, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 1–2 mm long, 1–1.2 mm wide, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 0.5 mm long, 0.75 length of upper glume, hyaline, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume oblong, 0.7 mm long, 0.5 length of adjacent fertile lemma, hyaline, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile lemma oblong, 1.3 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea keels eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa. Angola. Namibia, Botswana, Limpopo.

Eragrostis hackelii Hassler. *Fedde, Repert. Nov. Sp.* viii. 47 (1910).

Regarded by K as a synonym (*E. bahiensis*).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Paraguay. **Basionym or Replaced Name:** *Eragrostis elatior* Hack., *Repert. Spec. Nov. Regni Veg.* 7: 374 (1909). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: *T. Rojas 10380*, Apr 1908, Paraguay, ad margines silvarum: Sierra de Amambay (BAA, BAF, P, US-911888, US-77387 (fragm.), US-77392 (fragm.)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Eduard Hackel (1850–1926) Bohemian-born Austrian botanist with special interest in the grasses.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms erect, robust, 150–250 cm long, 8 -noded. Culm-internodes terete, glandular (below nodes), distally glabrous. Lateral branches sparse, arising from lower culm. Leaf-sheaths mostly shorter than adjacent culm internode, glandular (on veins), pilose, with tubercle-based hairs. Ligule a fringe of hairs. Leaf-blades linear or lanceolate, 40 cm long, 15 mm wide. Leaf-blade midrib conspicuous. Leaf-blade surface scaberulous, rough adaxially, glabrous, hairless except near base. Leaf-blade margins scabrous. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate or ovate, 25–50 cm long. Primary panicle branches 15–25 cm long. Panicle axis scaberulous. Panicle branches capillary, scaberulous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 10–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 8–10 mm long, 1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes similar, shorter than spikelet. Lower glume linear or lanceolate, 1.8 mm long, 1 length of upper glume, hyaline, without keels, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume linear or lanceolate, 1.8 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins prominent. Lemma apex acuminate. Palea elliptic or oblong. Palea keels scaberulous. Palea apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.6 mm long. Caryopsis with adherent pericarp, oblong, 0.8 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Southern South America. Paraguay.

Eragrostis hainanensis L.C. Chia. *Fl. Hainan*. 4: 376, 539, f. 1184.(1977).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Hainan: Dongfang, open grasslands, 22 Aug. 1936, S.S. Liu 27750 (HT: SCBI).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 675).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From Hainan Province, China.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Stolons present. Culms erect or geniculately ascending, 35–45 cm long, 2 mm diam., 4–7 -noded. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a ciliate membrane, 0.2 mm long, scarious. Leaf-blades involute, 4–8 cm long, 3 mm wide, stiff. Leaf-blade surface pilose, hairy adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 9–13 cm long, 4–6 cm wide. Primary panicle branches ascending, 1 -nate. Panicle branches glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 10–44 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 7–15 mm long, 2 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes similar, shorter than spikelet. Lower glume ovate, 1 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.2 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.6 mm long, membranous, mid-green or purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex obtuse. Palea 0.9 length of lemma, 2 -veined. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 3 mm long, yellow. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Hainan.

Eragrostis heteromera Stapf. *Dyer, Fl. Cap.* vii. 610. (1900).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *Drhge s.n.*, South Africa: Natal: near Durban

ST: *Krauss 43*, South Africa: Natal: by the Umlazi River, and near Pietermaritzburg

ST: *Buchanan 241*, South Africa: Natal: by the Tugela River, 600–1000 ft

ST: *Buchanan 245a*, South Africa: Natal: by the Tugela River, 600–1000 ft.

Illustrations (Books): R.M.Pollhill, F.T.E.A., *Gramineae* (2(1974):193, Fig.61), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (140&155, Fig 108&123).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): Gk. heteros, different; meros, part.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths papery, glabrous or pubescent (obscurely). Culms erect, 40–90 cm long. Ligule a fringe of hairs. Leaf-blades flat or convolute, 10–15 cm long, 2–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, 15–30 cm long, evenly furnished or contracted about primary branches. Primary panicle branches spreading, 1–8 -nate, not whorled. Panicle branches glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–16 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets linear, laterally compressed, 4–9 mm long, 1.5 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, dissimilar, shorter than spikelet. Lower glume lanceolate, 0.2–1.2 mm long, 0.2–0.8 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.2–1.5 mm long, 0.6–0.8 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets free at tip. Fertile lemma elliptic or ovate, gibbous (margins), lanceolate in profile, 1.6–2.2 mm long, membranous, yellow or dark green, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct or prominent. Lemma surface scaberulous. Lemma apex obtuse. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.8–1 mm long. Caryopsis with adherent pericarp, fusiform or oblong, 1 mm long.

Distribution (TDWG). Continent. Europe (*), Africa.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa.** Burundi, Rwanda, DRC. Ethiopia (inc. Eritrea). Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Kwazulu-Natal, Western Cape, Eastern Cape.

Eragrostis hierniana Rendle. *Cat. Welw. Afr. Pl.* ii. 237. (1899).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Pungo Adongo, damp places in the praesidium, *Welwitsch* 2798.

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):56, t. 23).

Derivation (Clifford & Bostock 2007): L. -ana, indicating connection. In honor of Walter Philip Hiern (1839–1925) English botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–120 cm long. Ligule a fringe of hairs. Leaf-blades flat or convolute, 10–25 cm long, 2–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, loose or effuse, 6–25 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–25 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–12 mm long, 1–2.5 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.5–2 mm long, 0.8 length of upper glume, dark brown, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 1.7–2.5 mm long, 0.8–1 length of adjacent fertile lemma, dark brown, 1-keeled, 1 -veined. Upper glume apex acuminate.

Florets. Fertile lemma elliptic or ovate, lanceolate in profile, 2–2.5 mm long, membranous, purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins extending close to apex. Lemma margins eciliate. Lemma apex acute. Palea keels tuberculate, ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.8–1.2 mm long. Caryopsis with adherent pericarp, linear, isodiametric, 1–1.5 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. **East tropical Africa, South tropical Africa, Southern Africa.** Tanzania. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Kwazulu-Natal.

Eragrostis hildebrandtii Jedwabnick. *Bot. Archiv.*, v. 190 (1924).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Madagascar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Hildebrandt* 3995, Madagascar: Betsileo

ST: *Hildebrandt* 4011, Madagascar: Betsileo

ST: *Forsyth Major* 246, Madagascar: in silva Ambohimitombo.

Derivation (Clifford & Bostock 2007): in honor of Johann Maria Hildebrandt (1847–1881) German-born traveller and plant collector.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms decumbent, 50 cm long. Culm-nodes glabrous. Ligule a fringe of hairs. Leaf-blades flat or convolute, 7–15 cm long, 1–1.5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, 15–25 cm long, 7–18 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 10–40 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 6–18 mm long, 2 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5 mm long, 0.66 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2.2 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

Eragrostis hirsuta (Michx.) Nees. *Agrost. Bras.* 508. (1829).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Poa hirsuta* Michx., *Fl. Bor.-Amer.* 1: 68 (1803)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Michaux s.n.*, USA: South Carolina (P; IT: US-77389 (fragm.)).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (96).

Illustrations (Journals): *Sida* (21: 1388, Fig.8A-D (2005)).

Derivation (Clifford & Bostock 2007): L. hairy. Plant hairy in respect to all or some parts.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 45–100 cm long. Leaves basal and cauline. Leaf-sheaths hirsute, outer margin hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades flat or involute, 20–40 cm long, 4–8 mm wide. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 25–60 cm long, 15–25 cm wide. Primary panicle branches ascending or spreading. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 2–4 mm long, 1–1.2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.4–2 mm long, 0.8–0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 1.6–2.2 mm long, 0.8–0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 2–2.4 mm long, membranous, mid-green or purple, mottled with last colour, keeled, lightly keeled, keeled above, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, oblong, 0.8 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. North-central USA, South-central USA, Southeastern USA, Mexico. Missouri, Oklahoma. Texas. Arkansas, Florida, Georgia, Kentucky, North Carolina, South Carolina, Tennessee, Virginia. Southwest Mexico, Southeast Mexico.

Jalisco, Oaxaca. Chiapas.

Eragrostis hirta Fourn. *Mex. Pl. Enum., Gram.* 115 (1886).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mexico. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Virlet de Aoust 1390*, Aug 1851, Mexico: San Luis Potosi (P; IT: US-77382 (fragm.)).

Illustrations (Journals): *Sida* (21: 1388, Fig.8E-H (2005) as var. *hirta*).

Derivation (Clifford & Bostock 2007): L. hairy. Hairy in part or extensively.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 60–100 cm long. Culm-internodes distally glabrous. Lateral branches lacking. Leaves basal and cauline. Leaf-sheaths without keel, hirsute, with tubercle-based hairs. Ligule a fringe of hairs, 0.3–0.4 mm long. Leaf-blades 20–40 cm long, 2–5 mm wide. Leaf-blade surface scabrous, rough adaxially, pilose, sparsely hairy, hairy adaxially, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, 25–50 cm long, 5–10 cm wide. Panicle branches glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.75–1 length of fertile spikelet.

Fertile Spikelets. Spikelets comprising 4–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 3–5 mm long, 1.4–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.6–2 mm long, 0.9 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.7–2.1 mm long, 0.9–1.1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5–2.2 mm long, membranous, without keel, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma surface scaberulous, rough on veins. Lemma apex acute. Palea 1 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.7–0.8 mm long, purple. Caryopsis with adherent pericarp, oblong, trigonous, sulcate on hilar side, 0.5–0.7 mm long, truncate.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. Mexico. Central Mexico, Northeast Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica.** Belize, Guatemala, Honduras.

TDWG4. Mexico State. Neuvo Leon, San Luis Potosi, Tamaulipas, Zacatecas. Jalisco, Oaxaca. Chiapas.

Eragrostis hirticaulis M. Lazarides. *Austral. Syst. Bot.*, 10(1): 122 (1997).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Northern Territory, Katherine: *Lazarides 6848* (CANB holo, DNA, K).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (357,374 & 382, Fig 64,67 & 69), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 171, Fig.1 (1997)).

Derivation (Clifford & Bostock 2007): L. *hirtus*, hairy; caulis, stem. Culms hairy.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms erect, 40–50 cm long, 4–6 -noded. Culm-internodes eglandular, distally glabrous or hirsute. Leaf-sheaths tight, longer than adjacent culm internode, eglandular, hirsute, with simple hairs or tubercle-based hairs. Ligule a fringe of hairs, 0.2–0.3 mm long. Collar bearded. Leaf-blades curled, involute, 2–3 mm wide, stiff. Leaf-blade surface scabrous, hirsute, with simple hairs or tubercle-based hairs. Leaf-blade margins eglandular.

Inflorescence. Inflorescence a panicle. Peduncle eglandular, pilose above or hirsute above. Panicle spiciform, linear, 13–16 cm long, 1 cm wide. Primary panicle branches 0.5–1 cm long. Panicle axis eglandular, pilose or hirsute. Panicle branches eglandular, smooth or scabrous, pilose or hirsute, with simple hairs or tubercle-based hairs. Spikelets solitary. Fertile spikelets sessile or pedicelled. Pedicels absent or present, 0.5–2.5 mm long, eglandular.

Fertile Spikelets. Spikelets comprising 0–1 basal sterile florets, 13–16 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate or ovate, laterally compressed, 5.5–8 mm long, 2–3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes thickened, curved, 0.3–0.4 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate or ovate, 1.8–2 mm long, 1 length of upper glume, membranous or cartilaginous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate or ovate, 1.8–2 mm long, 0.9 length of adjacent

fertile lemma, membranous or cartilaginous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Basal sterile florets absent or 1, barren, without significant palea, separately deciduous. Lemma of lower sterile floret similar to fertile lemma, 1–3 -veined. Fertile florets all similar in size. Fertile lemma lanceolate or elliptic, 2–2.3 mm long, membranous or cartilaginous, keeled, 3 -veined, 0–3 -veined. Lemma surface smooth or granulose. Lemma apex acute or acuminate. Palea elliptic, with flaps narrower than body, membranous or cartilaginous, 2 -veined. Palea keels thickened, scaberulous. Palea apex scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.5–0.6 mm long, retained within floret or eventually exerted. Caryopsis with free soft pericarp, ovoid or orbicular, isodiametric, 0.3–0.5 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory.
Darwin & Gulf.

Eragrostis hispida K. Schum. *Engl. Pflanzenw. Ost-Afr. C* 114. (1895).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Kenya. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Massaihochland: Kitui in Ukamba, *Hildebrandt 2675*.

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):56, t. 23).

Derivation (Clifford & Bostock 2007): L. bearing coarse stiff hairs. Plant wholly or partly rough to the touch.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Butt sheaths persistent and investing base of culm, with fibrous dead sheaths. Culms erect, 12–60 cm long. Ligule a fringe of hairs. Leaf-blades filiform, 6–15 cm long, 0.5–1 mm wide.

Inflorescence. Inflorescence a panicle or composed of racemes. Panicle open, ovate, 1–10 cm long, with spikelets clustered towards branch tips. Primary panicle branches sterile at the tips. Panicle branches glabrous or pilose. Racemes borne along a central axis, bearing few fertile spikelets. Rhachis terminating in a barren extension, extension bristle-like. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, flexuous.

Fertile Spikelets. Spikelets comprising 4–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 2.5–6 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes definite.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.5–4.5 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume surface glabrous or pilose, with simple hairs or tubercle-based hairs. Lower glume apex acute. Upper glume lanceolate, 1.5–4.5 mm long, 0.7–1.4 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume surface glabrous or pilose, with simple hairs or tubercle-based hairs. Upper glume apex acute.

Florets. Fertile lemma elliptic or ovate, 2–3.3 mm long, membranous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma surface glabrous to pilose. Lemma margins pubescent or pilose or eciliate (rarely). Lemma hairs grey. Lemma apex obtuse or acute. Palea keels tuberculate, ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.8–2 mm long. Caryopsis with adherent pericarp, ellipsoid, 1.3 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa. Burundi, Rwanda, DRC. Ethiopia (inc. Eritrea), Sudan. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe.

Eragrostis homblei De Wild. *Bull. Jard. Bot. Brux.* vi. 66 . (1919).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from DRC. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Kapanda, *Homble 982*.

Illustrations (Books): R.M.Pohill, F.T.E.A., *Gramineae*, G.V.Pope et al., *Flora Zambesiaca* 10.

Derivation (Clifford & Bostock 2007): in honor of Henri Antoine Homble (1883–1921) Belgian botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous. Culms erect, 20–90 cm long. Ligule a fringe of hairs. Leaf-blades 10–30 cm long, 3–6 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, effuse, 15–30 cm long. Panicle branches flexuous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 4–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–7 mm long, 1–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, tough throughout or fragile above, with the distal florets disarticulating separately.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.5–2.7 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5–2.7 mm long, 0.7–0.9 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume apex acute.

Florets. Fertile florets divergent, free at tip. Fertile lemma elliptic or obovate, 2–3 mm long, membranous, dark green or purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea keels smooth or scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1–1.2 mm long. Caryopsis with adherent pericarp, oblong, 1.2 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, East tropical Africa, South tropical Africa. Congo, DRC. Tanzania. Malawi, Zambia.

Eragrostis homomalla Nees. *Fl. Afr. Austr.* 406. (1841).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: South Africa, Ebenezer: Drege.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955).

Derivation (Clifford & Bostock 2007): Gk. homos, alike; mallos, stem of onion. Culms with only two leaves.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 8–40 cm long. Ligule a fringe of hairs. Leaf-blades 2–10 cm long, 1–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate or linear, 3–15 cm long, contracted about primary branches. Primary panicle branches not whorled, bearing spikelets almost to the base. Panicle branches glandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong, 1–2 mm long, glandular.

Fertile Spikelets. Spikelets comprising 6–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 2–7 mm long, 0.7–1 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, dissimilar, shorter than spikelet. Lower glume ovate, 0.3–0.5 mm long, 0.5–0.6 length of upper glume, hyaline, without keels, 0 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.6–0.8 mm long, 0.5–0.6 length of adjacent fertile lemma, hyaline, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla. Fertile lemma elliptic or ovate, 1–1.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.2 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.5–0.7 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa, South tropical Africa, Southern Africa. Kenya. Angola, Zimbabwe. Namibia, Botswana, North-West, Free State, Northern Cape, Western Cape, Eastern Cape.

Eragrostis hondurensis R.W. Pohl. *Iowa State J. Res.*, 54(3): 319 (1980).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Honduras. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Honduras: El Paramso: 10.5 km SE of Yuscaran, elev. 550 m, abandoned field near a small stream, 31 Dec 1977, *Pohl & Gabel 13442* (HT: ISC-329297; IT: MO).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From Honduras.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 25–65 cm long. Culm-internodes glandular, distally glabrous. Lateral branches ample, arising from lower culm or mid culm. Leaves cauline. Leaf-sheaths glandular, viscid, without keel, pilose, with tubercle-based hairs. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.2–0.5 mm long. Leaf-blades 4–10 cm long, 2–4 mm wide, viscid. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, 9–33 cm long, 3–10 cm wide. Primary panicle branches bearing spikelets almost to the base. Panicle branches glandular, viscid, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, glandular.

Fertile Spikelets. Spikelets comprising 5–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–7.5 mm long, 0.9–1.3 mm wide, breaking up at maturity, rhachilla persistent.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume ovate, 1.2–1.5 mm long, 0.9 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.4–1.7 mm long, 1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic or oblong, 1.4–1.5 mm long, membranous, viscid, keeled, lightly keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma surface asperulous. Lemma apex truncate. Palea 1 length of lemma. Palea keels ciliate, with hairs 0.2–1.5 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.1–0.3 mm long, purple. Caryopsis with adherent pericarp, ellipsoid, 0.5–0.6 mm long, obtuse.

$2n = 30$ (1 ref TROPICOS).

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. Mexico. Southwest Mexico, Southeast Mexico. **Mesoamerica.** Honduras, Nicaragua.

Oaxaca. Chiapas.

Eragrostis humbertii A.Camus. *Bull. Soc. Bot. France*, xciv. 42 (1947).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Madagascar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Madagascar, Domaine occidental: delta de la Linta., *Humbert & Swingle 5431* (HT: not designated).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): In honor of Jean Henri Humbert (1887–1967) French botanist who collected in Madagascar.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, 5–15 cm long, 3 -noded. Leaf-sheaths striately veined, pilose. Leaf-sheath oral hairs woolly. Ligule absent. Leaf-blades convolute, 2.5–5 cm long, 1–3 mm wide, stiff. Leaf-blade surface scaberulous, rough adaxially, pilose, sparsely hairy, hairy abaxially. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle glomerate, linear, 1.5–6 cm long, 0.4–0.8 cm wide. Panicle axis hirsute (woolly). Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 11 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 4–5 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 0.3–0.4 mm long.

Glumes. Glumes similar, shorter than spikelet. Lower glume ovate, 1.8 mm long, 0.75 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 2.2 mm long, 1.2 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma oblong, 1.8 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute. Palea 1.2 mm long. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

Eragrostis humidicola Napper. *Kirkia*, iii. 114 (1963).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Tanzania. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: IT: *A. Haarer* 2420, Dec 1931, Tanzania: West Lake (US-1538871).

Illustrations (Books): R.M.Pollhill, F.T.E.A., *Gramineae* (2(1974):193, Fig.61).

Derivation (Clifford & Bostock 2007): *L. humidus*, moist;-cola, dweller. Growing in damp meadows.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–110 cm long, wiry. Ligule a fringe of hairs. Leaf-blades flat or convolute, 10–25 cm long, 2–2.5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear, 12–25 cm long. Primary panicle branches appressed, 1–5(–7) cm long, bearing spikelets almost to the base. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–1 mm long.

Fertile Spikelets. Spikelets comprising 12–40 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 5–16 mm long, 1–1.8 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.7–0.8 mm long, 0.7–0.8 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1–1.1 mm long, 0.7–0.8 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.2–1.5 mm long, cartilaginous, grey, glandular on veins (keel), keeled, 3 -veined, 0–3 -veined. Lemma lateral veins thickened. Lemma margins eciliate or pilose. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.4 mm long. Caryopsis with adherent pericarp, oblong, trigonous, 0.6–0.7 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, East tropical Africa. Rwanda, DRC. Kenya, Tanzania, Uganda.

Eragrostis hypnoides (Lam.) Britton, Stern & Poggenb. *Prelim. Cat*, 69. (1888).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Poa hypnoides* Lam., *Tabl. Encycl.* 1: 185 (1791)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *D. Richard s.n.*, Tropical America (P-LAM; IT: BAA-1041, NY (fragm. ex P), US-2850742 (fragm. ex P)).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (75), F.W.Gould, *The Grasses of Texas* (1975) (196, Fig. 96), A.S.Hitchcock, *Manual of the Grasses of the West Indies* (1936) (37, Fig. 15), S.A.Renvoize, *Gramineas de Bolivia* (1998) (309, Fig. 64), S.A.Renvoize, *The Grasses of Bahia*, 1984 (65, Fig. 23), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (328, Fig. 75 & 336, Fig. 77), A.Burkat, *Flora Ilustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (174, Fig. 60), W.Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (216, Fig. 73), A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (331, Fig. 84), B.Rosengurtt, *Gramineas Uruguayas I* (1970).

Illustrations (Journals): *Sida* (21: 1391, Fig.9A-C (2005)), *Ruizia* (13:245, Fig 28a-c (1993)).

Derivation (Clifford & Bostock 2007): Gk. hypnos moss; -oides, resembling. Habit moss-like.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, mat forming. Stolons present. Culms prostrate, 10–25 cm long, 0.2–0.5 mm diam., rooting from lower nodes. Culm-internodes distally glabrous. Culm-nodes glabrous. Leaf-sheaths glabrous on surface, outer margin hairy. Ligule a fringe of hairs, 0.5 mm long. Leaf-blades flat or conduplicate, 4–30 cm long, 1–1.5 mm wide. Leaf-blade surface puberulous, hairy adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 2–4 cm long. Primary panicle branches ascending or spreading, 0.5–2.5 cm long. Panicle branches glabrous to pubescent. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, reduced to a stump, 0.5–1 mm long.

Fertile Spikelets. Spikelets comprising 15–32 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 8–14 mm long, 2–3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.6–0.8 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 0.9–1.2 mm long, 0.5 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate or trullate, 1.8–2.2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute or acuminate. Palea 0.5 length of lemma. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2, 0.2 mm long, pallid. Caryopsis with adherent pericarp, ellipsoid, 0.4–0.5 mm long.

$N = 20$ (1 ref TROPICOS). $2n = 20$ (1 ref TROPICOS).

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. **Western Canada, Eastern Canada, Northwest USA, North-central USA, Northeast USA, Southwestern USA, South-central USA, Southeastern USA, Mexico.** Manitoba. Nova Scotia. Colorado, Montana, Oregon, Washington. Illinois, Iowa, Kansas, Minnesota, North Dakota, Nebraska, Oklahoma, South Dakota, Wisconsin. Connecticut, Indiana, Maine, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia. Arizona, California, Nevada, Utah. New Mexico, Texas. Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, District of Columbia. Northeast Mexico, Gulf (Mexico), Northwest Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica, Caribbean, Northern South America, Western South America, Brazil, Southern South America.** Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama. Cuba, Dominican Republic, Haiti, Jamaica, Puerto Rico, Trinidad-Tobago. French Guiana, Guyana, Surinam, Venezuela. Bolivia, Colombia, Ecuador, Peru. Brazil West Central, Brazil Northeast, Brazil North, Brazil Southeast, Brazil South. Argentina Northeast, Paraguay, Uruguay.

TDWG4. Buenos Aires, Chaco, Corrientes, Distrito Federal, Entre Rios, Formosa, Misiones, Santa Fe. Guanajuato, San Luis Potosi, Tamaulipas. Veracruz. Baja California Sur, Sonora. Guerrero, Oaxaca. Campeche, Chiapas, Tabasco.

Eragrostis inamoena K. Schum. *Engl. Pflanzenw Ost-Afr. C* 115. (1895).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Tanzania. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *Hildebrandt 1080?*, Zanzibar: Bagamoyo

ST: *Holst 4143*, Zanzibar: Pugu.

Illustrations (Books): R.M.Phill, F.T.E.A., *Gramineae* (2(1974):193, Fig.61).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. in-, not; amoena, beautiful. Appearance unattractive in comparison with related species.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Butt sheaths glabrous. Culms geniculately ascending, 30–100 cm long. Ligule a fringe of hairs. Leaf-blades 4–25 cm long, 2–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, loose or effuse, 7–25 cm long, evenly furnished. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 9–40 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–20 mm long, 2–3(–3.5) mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.2–2 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.2–2 mm long, 0.7–0.8 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent, free at tip. Fertile lemma ovate, 1.7–2.5 mm long, membranous, dark green or grey, keeled, 3 -veined, 0–3 -veined. Lemma surface asperulous. Lemma apex acute. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.7–1 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.7–1 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa, South tropical Africa, Southern Africa. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Swaziland, Kwazulu-Natal, Eastern Cape.

Eragrostis incrassata T.A. Cope. *Kew Bull.*, 47(2): 280 (1992).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Somalia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Somalia: Sannag: Erigavo, 5700' [1737 m], Apr 1939, *McKinnon S. 269* (HT: K; IT: BM).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. thickened. Culm base swollen.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes elongated. Stolons present. Culms 20–40 cm long. Leaves distichous. Ligule a fringe of hairs. Leaf-blades flat or involute, 2–8 cm long, 1–2.5 mm wide, glaucous.

Inflorescence. Inflorescence a panicle. Panicle contracted, lanceolate or oblong, 3–9 cm long. Primary panicle branches simple, bearing spikelets almost to the base. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–16 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 6–17 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate or ovate, 2.2–2.6 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate or ovate, 2.2–2.6 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla. Fertile lemma elliptic in profile or ovate in profile, 2.3–2.8(–3.4) mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Palea 2 -veined. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1.3–1.4 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa. Somalia.

Eragrostis infecunda J. M. Black. *Trans. & Proc. Roy. Soc. S. Austral.* 1v. 137. (1931).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Along the Gilbert and Wakefield Rivers near Riverton, Worsley Johnston s.n.

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (372, Fig 302), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (567, Fig 113).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): L. in-, not; fecundus, fertile. No grain found after persistent searching.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Rootstock evident. Rhizomes elongated. Stolons present. Culms 35–70 cm long. Lateral branches lacking or sparse. Leaf-sheath oral hairs lacking. Ligule a fringe of hairs. Leaf-blades involute or convolute, 3–8 cm long, 1–2 mm wide, stiff. Leaf-blade surface smooth, glabrous. Leaf-blade margins cartilaginous, scabrous.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate or elliptic, dense, 6–10 cm long, 2–4 cm wide. Primary panicle branches 1–3.5 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–11 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 5–11.5 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes 0.8–1.8 mm long, eventually visible between lemmas, smooth or scaberulous.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2.3–4 mm long, 0.66–0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein smooth or scaberulous.

Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 3.5–4.5 mm long, 1.3–1.4 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein smooth or scaberulous. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, 2.5–3.3 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute or acuminate. Palea readily splitting down midline. Palea keels smooth. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory, South Australia, Victoria. Central Australia. Southern.

Eragrostis intermedia Hitchcock. *Journ. Wash. Acad. Sc.* xxiii. 450. (1933).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: A.S. Hitchcock 5491, 3 Jul 1910, USA: Texas: Bexar Co.: San Antonio (US-1535749; IT: US-908993, US-1535750).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (98), F.W.Gould, *The Grasses of Texas* (1975) (183, Fig. 92).

Illustrations (Journals): *Sida* (21: 1393, Fig.10A-C (2005)).

Derivation (Clifford & Bostock 2007): *L. intermedia*. Having affinities with but distinct from other species.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 55–90 cm long. Leaf-sheaths glabrous on surface, outer margin hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades 15–20 cm long, 2–3 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 20–40 cm long, 15–30 cm wide. Primary panicle branches ascending or spreading, 2–3 -nate, 10–25 cm long. Panicle branches stiff, scabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–11 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate or ovate, laterally compressed, 4–7 mm long, 1.6–1.8 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.2–1.8 mm long, 0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.4–2 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.8–2.2 mm long, membranous, mid-green or grey or purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, oblong, sulcate on hilar side, 0.8 mm long.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. North-central USA, Southwestern USA, South-central USA, Southeastern USA, Mexico. Kansas, Missouri, Oklahoma. Arizona. New Mexico, Texas. Arkansas, Florida, Georgia, Louisiana, Tennessee. Central Mexico, Northeast Mexico, Gulf (Mexico), Northwest Mexico, Southwest Mexico. Mesoamerica, Western South America. Costa Rica, Guatemala. Colombia.

TDWG4. Distrito Federal, Mexico State, Morelos, Puebla, Tlaxcala. Coahuila, Chihuahua, Durango, Guanajuato, Hidalgo, Nuevo Leon, Queretaro, San Luis Potosi, Tamaulipas, Zacatecas. Veracruz. Baja California, Baja California Sur, Sinaloa, Sonora. Guerrero, Jalisco, Michoacan, Nayarit, Oaxaca. Chiapas, Quintana Roo.

Eragrostis interrupta Beauv. *Agrost.* 71. (1812).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Poa interrupta* R. Br. 180 (810). non Lam (1791). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Littora Novae Hollandiae intra tropicum: 1802–1805, *R. Brown 6280* Type according to K. Domin 1915.

Illustrations (Books): C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (125, Pl 36), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (252).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.Domin, *Bibliotheca Botanica* 85 (1915) (401, Fig.93 as *E.australiensis*).

Derivation (Clifford & Bostock 2007): L. not continuous. Spikelets or inflorescence branches clustered at intervals along an axis.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 30–90 cm long. Ligule a fringe of hairs. Leaf-blades 2–3 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 15–18 cm long, contracted about primary branches. Primary panicle branches appressed, distant, 1–2.5 cm long, bearing spikelets almost to the base. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 20–40 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 10–25 mm long, 2 mm wide, breaking up at maturity, rachilla persistent, retaining paleas. Rachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 2 mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2.5 mm long, scarious, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, orbicular, 0.6 mm long.

Distribution (TDWG). Continent. Tropical Asia, Australasia.

Country /Province /State. **Indo-China, Malesia.** Vietnam. Philippines. **Australia.** Western Australia, Northern Territory, Queensland, New South Wales.

Kimberley. Darwin & Gulf. North, Central, South East. Coast.

Eragrostis invalida Pilger. *Engl. Jahrb.* iv. 129. (1904).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Cameroon. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Zenker 553*, Cameroon (B).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. in-, not; validus, valid. Spikelet structure not fully characteristic of the genus.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 15–90 cm long. Ligule a fringe of hairs. Leaf-blades convolute, 10–20 cm long, 2–5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 5–15 cm long. Panicle branches capillary, flexuous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 7–35 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 6–13 mm long, 4–5 mm wide, breaking up at maturity, rachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 2–2.2 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 2–2.2 mm long, 0.5–0.7 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 3–4 mm long, membranous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels winged, conspicuously winged, smooth. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1–1.5 mm long. Caryopsis with adherent pericarp, ellipsoid, dorsally compressed, 1–3 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. **West tropical Africa, West-central tropical Africa.** Guinea, Nigeria, Sierra Leone. Gabon.

Eragrostis jacobsiana B.K.Simon. *Flora of Australia* 44B:460 (2005).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Australia, Queensland. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Queensland: 1km from Laura on Welcome Station Road, 25 Apr 2001, D. Sharp & B.K. Simon 387 (HT: BRI; IT: NSW).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (407, Fig 72).

Derivation (Clifford & Bostock 2007): L. -*ana*, indicating connection. In honor of Surrey Wilfred Laurance Jacobs (1946-) Australian botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual or perennial, caespitose. Culms erect, 20–60 cm long. Ligule a fringe of hairs, 2–3 mm long. Leaf-blades 5–9 cm long, 2–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, linear, 8–25 cm long, 2–4 cm wide. Panicle branches bearded in axils, with prominent pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 7–44 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–17 mm long, 2.5–3 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes curved.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.2 mm long, 0.66–0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5–1.6 mm long, 0.66–0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, gibbous, 2–2.5 mm long, membranous, purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma surface asperulous, glabrous. Lemma apex obtuse. Palea ovate or orbicular, with flaps narrower than body, bowed outwards, 2–2.5 mm long. Palea keels winged, narrowly winged, smooth, ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2–3, 0.5 mm long. Caryopsis with adherent pericarp, orbicular, isodiametric, 0.5 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland.

Eragrostis japonica (Thunb.) Trin. *Mem. Acad. Petersb. Ser. VI. i. 405* (1830).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)*, N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *Eragrostis diarrhena* & *E. diplachnoides*), T.G.Tutin et al, *Flora Europaea* 5 (1980) (as *Eragrostis diarrhena*), N.Tsvelev, *Grasses of the Soviet Union* (1983) (as *Diandrochloa diarrhena*), T.Koyama, *Grasses of Japan and its neighboring regions* (1987), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Japan. **Basionym or Replaced Name:** *Poa japonica* Thunb., *Fl. Jap.* 51 (1784)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Japan: Kosido, near Nagasaki, Thunberg *s.n.* (HT: UPS).

Recent Synonyms: *Diandrochloa namaquensis* (Nees) de Winter, *Bothalia*, 7: 388 (1961), *Eragrostis namaquensis* Nees ex Schrad., *Linnaea*, 12: 452 (1838). *Diandrochloa japonica* (Thunb.) Trin., *Mem. Acad. Petersb. Ser. VI. i. 405* (1830).

Diandrochloa diplachnoides (Steud.) A.N.Henry, *Bull. Bot. Surv. Ind.* 9: 290 (1968); *Eragrostis diplachnoides* Steud., *Syn. Pl. Gram.* 268 (1854).

Diandrochloa diarrhena (Schult.) A.N.Henry, *Bull. Bot. Surv. Ind.* 9: 290 (1968); *E. diarrhena* (Schult.) Steud., *Syn. Pl. Gram.* 266 (1854).

Diandrochloa glomerata, *E. glomerata*.

Illustrations (Books): N.N.Tsvelev, *Grasses of the Soviet Union* (1983) (945 (625), Pl.13 as *Diandrochloa diarrhena*), R.M.Phillip, F.T.E.A., *Gramineae* (2(1974):190, Fig. 60 as *E. namaquensis*), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (182, Fig. 156 as *E. namaquensis*), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (104, Fig. 61 as *Diandrochloa namaquensis*), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (141, Fig. 45 as *E. namaquensis*), N.Feinbrun-Dothan, *Flora Palaestina* 4 (1986) (Pl. 371), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (115, Fig 48), L.Boulos, *Flora of Egypt* 4 (2005) (254, Pl. 75), N.L.Bor, *Gramineae* in *Flora of Iraq* (1968) (445, Pl. 169 & 446, Pl. 170 as *E. diarrhena* & *E. diplachnoides*), T.Koyama, *Grasses of Japan and its neighbouring regions* (1987) (259, Fig. 97), C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (406), C-C Hsu, *Taiwan Grasses* (1975) (485, Pl. 1404), K.M.Matthew, *Flora Palni Hills* (1996) (824, Pl. 824), K.M.Matthew, *Illustrations on the Flora of Tamilnadu Carnatic* (1982) (Pls. 864 & 865), H.J.Noltie, *The Grasses of Bhutan* (2000) (659, Fig. 33), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae*

(1952) (117, Pl. 33), M.E. Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (75), A.S. Hitchcock, *Manual of the Grasses of the West Indies* (1936) (39, Fig. 17 as *E. glomerata*), S.A. Renvoize, *Gramineas de Bolivia* (1998) (311, Fig. 65), S.A. Renvoize, *The Grasses of Bahia*, 1984 (62, Fig. 22), J.A. Steyermark et al, *Flora of the Venezuelan Guayana* Vol. 8 (2004) (103, Fig. 68), A. Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (169, Fig. 59 as *Diandrochloa glomerata*), W. Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (215, Fig. 72 as *E. glomerata*), A.L. Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (324, Fig. 82 as *Diandrochloa glomerata*), B. Rosengurtt, *Gramineas Uruguayas I* (1970) (as *E. glomerata*), E. Judziewicz, *Flora of the Guianas*, 187. *Poaceae* (1990) (208, Fig. 34), S-L Chen et al, *Flora of China*, Illustrations, *Poaceae* (2007) (Fig. 680).

Images: H.B. Gilliland et al., *Flora of Malaya Vol. 3 Grasses* (1971);

Derivation (Clifford & Bostock 2007): L. -ica, belonging to; Japan, a modified spelling Zhapan introduced into Europe by Marco Polo as a transliteration for the Chinese name for the large islands to the east of that country. From Japan.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 10–150 cm long. Ligule a ciliate membrane, 0.3–0.6 mm long, lacerate, truncate. Leaf-blades 3–30 cm long, 1–5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, linear or lanceolate or ovate, 4–50 cm long, contracted about secondary branches. Primary panicle branches ascending or spreading, 3–14 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 1.3–2.2 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume ovate, 0.4–0.7 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse or acute. Upper glume ovate, 0.4–0.7 mm long, 0.6–1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume apex acute or acuminate.

Florets. Fertile lemma ovate, 0.7 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea keels smooth or scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2, 0.2 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.3–0.5 mm long.

$N = 10$ (2 refs TROPICOS), or 20 (2 refs TROPICOS).

Distribution (TDWG). Continent. Europe, Africa, Temperate Asia, Tropical Asia, North America, South America.

Region. Eastern Europe.

Country /Province /State. East European Russia, South European Russia. **Northern Africa, West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean.** Algeria, Egypt. Ghana, Mali, Nigeria, Senegal, Togo, Niger. DRC. Eritrea, Ethiopia (inc. Eritrea), Somalia, Sudan. Kenya, Tanzania. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Kwazulu-Natal, Northern Cape, Eastern Cape. Madagascar. **Western Asia, Arabian Peninsula, China, Eastern Asia.** Iran, Iraq. Gulf States, Oman. China South Central, China Southeast. Japan, Nansei-Shoto, Taiwan. Japan Honshu, or Kyushu. **Indian Subcontinent, Indo-China, Malesia, Papuasias.** Assam, Bangladesh, Eastern Himalaya, India, Nepal, Pakistan, Sri Lanka, West Himalaya. Myanmar, Thailand, Vietnam. Borneo, Java, Lesser Sunda Is, Malaya, Moluccas, Philippines, Sulawesi, Sumatra. New Guinea West Papua (Irian Jaya). New Guinea, Solomon Is. **North-central USA, South-central USA, Southeastern USA, Mexico** (as *E. glomerata*). Missouri, Oklahoma. Texas. Alabama, Arkansas, Florida, Louisiana, Mississippi, Tennessee. Central Mexico, Gulf (Mexico), Southwest Mexico, Southeast Mexico. **Mesoamerica, Caribbean, Northern South America, Western South America, Brazil, Southern South America.** Costa Rica, El Salvador, Guatemala, Honduras. Windward Islands (as *E. glomerata*), Trinidad-Tobago (& as *E. glomerata*). Guyana. Bolivia, Colombia, Ecuador, Peru. Brazil West Central, Brazil Northeast, Brazil North, Brazil Southeast, Brazil South. Argentina Northeast, Argentina Northwest, Paraguay.

TDWG4. Anhui, Fujian, Guangdong, Guangxi, Henan, Jiangsu, Jiangxi, Zhejiang. Guizhou, Hubei, Yunnan. Bhutan, Sikkim. Assam, Nagaland. Andhra Pradesh, Bihar, Gujarat, Karnataka, Kerala. Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamilnadu, Uttar Pradesh, West Bengal. Himachal Pradesh, Jammu Kashmir. Jujuy, Salta, Tucuman. Buenos Aires, Chaco, Corrientes, Distrito Federal, Entre Rios, Formosa, Misiones. Mexico State, Morelos. Veracruz. Colima, Guerrero, Oaxaca. Chiapas.

Eragrostis jerichoensis B.K.Simon. *Flora of Australia* 44B:460 (2005).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Australia, Queensland. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Queensland: 1.5 km N of Jericho, 17 Mar 1993, *E.J.Thompson & R.J.Henderson JER93* (HT: BRI).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (407, Fig 72).

Derivation (Clifford & Bostock 2007): *L. -ensis*, denoting origin. From Jericho, Queensland, Australia.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–45 cm long. Culm-internodes semiterete. Ligule a fringe of hairs, 2 mm long. Leaf-blades 3–9 cm long, 2–2.5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 6–7 cm long, 3–4 cm wide. Panicle branches with insignificant pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, eglandular or glandular.

Fertile Spikelets. Spikelets comprising (3–)6–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate or orbicular, laterally compressed, compressed slightly, 3–4 mm long, 2–4 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes curved.

Glumes. Glumes persistent, similar, shorter than spikelet, recurved at apex. Lower glume lanceolate, 1.6–2 mm long, 1 length of upper glume, membranous, purple, 1-keeled, 1 -veined. Lower glume primary vein smooth. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.6–2 mm long, 1.1–1.25 length of adjacent fertile lemma, cartilaginous, purple, 1-keeled, 1 -veined. Upper glume primary vein smooth. Upper glume lateral veins absent. Upper glume apex attenuate.

Florets. Fertile lemma ovate or obovate, 1.5–1.6 mm long, membranous, pallid, keeled, 3 -veined, 0–3 -veined. Lemma surface granulose. Lemma apex obtuse. Palea elliptic, 1 length of lemma. Palea keels winged, narrowly winged, scabrous, eciliate or ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.7 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland.

Eragrostis kennedyae F. Turner. *Proc. Linn. Soc. N. S. Wales, Ser. II.* viii. 535. (1894).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: New South Wales: Wonnaminta Station, near Broken Hill, *M.B. Kennedy s.n.* .

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (373, Fig 303), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (252), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (407, Fig 72), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): in honor of Mary Bozzom Kennedy (1838–1915) of Wonnaminta station near Broken Hill, Australia.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms erect, slender, 30–45 cm long. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades 3–6 cm long, 1–2 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate, 11–16.5 cm long, 2.5–3.5 cm wide, contracted about primary branches. Primary panicle branches 2–5 cm long, bearing spikelets almost to the base. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 1 mm long, 1 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 0.5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma orbicular, 0.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea keels smooth. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Europe (*), Australasia.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Australia.** Western Australia, Northern Territory, South Australia, Queensland, New South Wales.

Eremean. Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre, Southern. North, Central, Inland. Western Plains.

Eragrostis kingesii De Winter. *Bothalia*, vii. 470 (1961).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Namibia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Kinges* 2236, Namibia: Klein-Aus.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Heinrich Kinges (1912-), German botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Butt sheaths glabrous or sparsely hairy. Glands sunken crateriform, or annular. Culms geniculately ascending or decumbent, 3–10 cm long, 2–4 -noded. Culm-internodes glandular. Culm-nodes bearded. Lateral branches ample. Leaf-sheaths glandular. Ligule a fringe of hairs. Leaf-blades 1–2 cm long, 2–3 mm wide, glandular. Leaf-blade margins glandular.

Inflorescence. Inflorescence a panicle. Panicle contracted, elliptic, 4–5 cm long, 2–2.5 cm wide. Primary panicle branches 1–3 -nate. Panicle branches glandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, glandular.

Fertile Spikelets. Spikelets comprising 7–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate or elliptic, laterally compressed, 5 mm long, 1–1.5 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1–1.2 mm long, 0.75 length of upper glume, membranous, eglandular or glandular, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5–1.8 mm long, membranous, grey, glandular on veins, keeled, 3 -veined, 0–3 -veined. Lemma surface scabrous. Lemma apex acute. Palea 0.75 length of lemma. Palea keels scabrous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.3 mm long. Caryopsis with adherent pericarp, oblong. Embryo 0.5 length of caryopsis. Hilum punctiform.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Namibia, Northern Cape.

Eragrostis kohorica Quezel. *Bull. Soc. Hist. Nat. Afr. Nord*, xlviii. 83 (1957).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Chad. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Chad, Tibesti, Emi Koussi: Quezel.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms erect, 8–12 cm long. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades involute, 40 cm long, 1.5–2.5 mm wide. Leaf-blade surface scabrous, rough adaxially. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Peduncle 2–4 cm long. Panicle open, ovate, 4–5 cm long. Primary panicle branches 1 -nate, 2.5 cm long. Panicle branches scabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 1–10 mm long.

Fertile Spikelets. Spikelets comprising 5–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 4–10 mm long, 1.5–1.8 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.6–1 mm long, 0.5 length of upper glume, hyaline, without keels. Lower glume apex acute. Upper glume lanceolate, 1.2 mm long, 0.7–0.8 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma lanceolate, 1.5–1.7 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma surface glabrous. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa. Chad.

Eragrostis kuchariana S.M. Phillips. *Kew Bull.*, 46(1): 114 (1991).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Somalia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Somalai: Jalalaski Distr.: 12 km NE of Ceel Baraf, 3.21N, 45.49.5E, 190 m, *Kuchar 17656* (HT: K; IT: MOG, UPS).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. *-ana*, indicating connection. In honor of Kuchar (fl. 1984) who collected in Somalia.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 55–60 cm long. Leaf-sheaths pilose, with clavellate hairs. Leaf-sheath oral hairs bearded, 3 mm long. Ligule a fringe of hairs. Leaf-blades flat or involute, 10–15 cm long, 3–5 mm wide, stiff. Leaf-blade apex filiform.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 25–30 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–2 mm long.

Fertile Spikelets. Spikelets comprising 14–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 12–24 mm long, 2.5–3 mm wide, breaking up at maturity, disarticulating below each fertile floret or below groups of fertile florets.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate or oblong, 1.7–1.9 mm long, 0.75 length of upper glume, 1-keeled, 1–3 -veined. Lower glume lateral veins absent or distinct. Lower glume apex acute. Upper glume lanceolate or oblong, 2.2–2.3 mm long, 1 length of adjacent fertile lemma, 1-keeled, 3 -veined. Upper glume apex acute.

Florets. Fertile lemma lanceolate or oblong, 2.3–2.6 mm long, chartaceous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex truncate or obtuse. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.8 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.6–0.7 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa. Somalia.

Eragrostis kuschelii Skottsb. *Arkiv Bot. Stockh., andra ser.*, iv. 485 (1963).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: San Ambrosio, Johow form 3, 5–6 Oct 1896, (HT: UPS).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, robust, 30–60 cm long. Leaf-sheaths mostly shorter than adjacent culm internode. Ligule a fringe of hairs. Leaf-blades 3–5 mm wide. Leaf-blade surface pilose, hairy adaxially.

Inflorescence. Inflorescence a panicle, exserted or embraced at base by subtending leaf. Panicle spiciform, oblong, interrupted, 10–20 cm long, 0.5–1 cm wide. Panicle axis scabrous. Panicle branches scabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, laterally compressed, 4.5–6 mm long, 2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes 0.5–0.6 mm long.

Glumes. Glumes similar, shorter than spikelet. Lower glume ovate, 1.5–1.9 mm long, 0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume surface scabrous. Lower glume apex acute. Upper

glume ovate, 1.8–2 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume surface scabrous. Upper glume apex acute.

Florets. Fertile lemma ovate, 2.5–2.8 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma surface scabrous. Lemma apex acute, mucronate. Palea 0.66 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, 0.2 mm long, fleshy. Anthers 0.3–0.5 mm long. Caryopsis with adherent pericarp, oblong, 0.9–1 mm long, light brown. Embryo 0.5 length of caryopsis.

Distribution (TDWG). Continent. South America.

Country /Province /State. Southern South America. Desventurados Is.

Eragrostis lacunaria F. Muell. *First Gen. Report* 20. (1853).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Subtropical New Holland: *Mitchell* (K lecto).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (373, Fig 304), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler, *Grasses of New South Wales*, 4th edn (2008) (252), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (357 & 374, Fig 64 & 67), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 171, Fig.1 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): *L. lacuna*, cavity; -aria, pertaining to. Surface of grain pitted.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual or perennial, short-lived. Culms 22–37 cm long, wiry, 3–5 -noded. Lateral branches lacking. Leaf-sheaths smooth or papillose, outer margin glabrous or hairy. Leaf-sheath oral hairs lacking or ciliate. Ligule a fringe of hairs. Leaf-blades involute, 2–7 cm long, 1–2 mm wide, stiff.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, 11–16 cm long, 6–10 cm wide, 0.5 of culm length. Primary panicle branches spreading, 1 -nate, branching divaricately, 3–6 cm long. Panicle branches stiff. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–2 mm long, smooth or scaberulous.

Fertile Spikelets. Spikelets comprising 11–33 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed or subterete, compressed slightly, 6–18 mm long, 0.75–1 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes 0.5 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.5 mm long, 0.5–0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 0.75–1 mm long, 0.5–0.66 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure, close to margins. Lemma apex obtuse. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, laterally compressed, sulcate on hilar side, 0.5 mm long.

Distribution (TDWG). Continent. Europe (*), Australasia.

Region. Northern Europe (*).

Country /Province /State. : Great Britain (*). **Australia.** Western Australia, Northern Territory, South Australia, Queensland, New South Wales, Victoria.

Ereman. Central Australia. NW & Lake Eyre, Southern. Central, South East, Inland. Western Slopes, Western Plains.

Eragrostis laevis Hackel. *Fedde, Repert.* x. 170 (1911).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Namibia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *W. Heering s.n.*, Namibia: Otavifontein (W).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. laevis*, smooth; -issima, most. Plants usually quite glabrous.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes absent or short. Culms 40–80 cm long, 1–2-noded. Culm-internodes glandular. Leaf-sheaths eglandular or glandular. Ligule a fringe of hairs. Leaf-blades conduplicate or convolute, 7–15 cm long, 1–2 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 6–18 cm long, 2–3 cm wide, contracted about secondary branches. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 2–3 mm long, 1.3–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.7–1 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.2–1.5 mm long, 0.75–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic, 1.5 mm long, membranous, grey, glandular on veins, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute. Palea keels approximate, scaberulous or tuberculate (glandular), eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.6–1.2 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Namibia, Botswana.

Eragrostis lanicaulis M. Lazarides. *Austral. Syst. Bot.*, 10(1): 126 (1997).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia, Northern Territory, Tobermorey homestead: *Lazarides 5247* (CANB holo, BRI, K).

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (253), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (374 & 391, Fig 67 & 70), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 172, Fig.2 (1997)).

Derivation (Clifford & Bostock 2007): *L. lana*, wool; *caulis*, stem. Culms woolly-hairy at their base.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rootstock evident. Cataphylls evident. Rhizomes short, woolly. Butt sheaths woolly. Culms erect, 45–50 cm long, wiry, 5–7 -noded. Culm-internodes eglandular, distally pubescent or hispid or woolly. Culm-nodes swollen, pallid, glabrous or pubescent. Leaf-sheaths tight, wider than blade at the collar, eglandular, glabrous on surface, outer margin glabrous or hairy. Leaf-sheath oral hairs lacking. Ligule a fringe of hairs, 0.5 mm long. Leaf-blades involute or convolute, 2–7 cm long, 1–2 mm wide. Leaf-blade surface scabrous, rough adaxially, glabrous. Leaf-blade margins cartilaginous, eglandular, scabrous. Leaf-blade apex pungent.

Inflorescence. Inflorescence a panicle. Peduncle eglandular. Panicle spiciform, linear, loose, 8–15 cm long, 1–2 cm wide. Primary panicle branches 1–2.5 cm long. Panicle axis eglandular, scaberulous. Panicle branches eglandular. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 17–94 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, subterete, 8–46 mm long, 1.2–1.6 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes straight, 0.6 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.3–1.9 mm long, 1 length of upper glume, membranous, much thinner on margins, without keels or 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex emarginate or obtuse. Upper glume ovate, 1.3–1.9 mm long, 0.75–0.9 length of adjacent fertile lemma, membranous, with hyaline margins, without keels or 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex emarginate or obtuse, mucous or mucronate.

Florets. Fertile lemma ovate, 1.7–2 mm long, membranous, much thinner on margins, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins thickened, midway between midvein and margin. Lemma surface scabrous, rough above. Lemma apex emarginate or obtuse. Palea obovate or oblanceolate, with flaps narrower than body, hyaline, 2 -veined. Palea keels falling well short of apex. Palea surface scaberulous. Palea apex dentate, 3 -fid, obtuse, ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.7–1 mm long, yellow or purple. Caryopsis with adherent pericarp, oblong or ovoid, flattened, 0.6–0.8 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland, New South Wales.

Ereman. Central Australia. North, Central, Inland. Western Plains.

Eragrostis laniflora Benth. *Fl. Austral.* vii. 648. (1878).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Mrs. Forde s.n.*, Australia: New South Wales: Darling River

ST: *Andrews s.n.*, Australia: Central Australia: Lake Eyre

ST: *Giles s.n.*, Australia: Central Australia: Charlotte Waters and towards West Australia.

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (374, Fig 305), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (253), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (400, Fig 71), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 175, Fig.5 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. lana, wool; flos, flower. Lemma and palea hairy.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Rhizomes elongated, scaly, woolly. Butt sheaths woolly. Culms erect, 30–60 cm long, wiry. Lateral branches lacking. Ligule a fringe of hairs. Leaf-blades 5–10 cm long, 1–3 mm wide, stiff.

Inflorescence. Inflorescence a panicle. Panicle open, linear or lanceolate, 10–20 cm long. Primary panicle branches simple or sparsely divided. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 10–35 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, straight or curved, laterally compressed, 6–22 mm long, 2–3.5 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1 length of upper glume, membranous, 1-keeled, 3 -veined. Lower glume primary vein scaberulous. Lower glume apex obtuse. Upper glume ovate, 0.66–0.75 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined. Upper glume primary vein scaberulous. Upper glume apex obtuse.

Florets. Fertile lemma elliptic or ovate, 2–3 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma margins woolly, hairy below. Lemma apex emarginate. Palea keels woolly, adorned below. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, South Australia, Queensland, New South Wales.

Ereman. Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre, Southern. Inland. Western Slopes, Western Plains.

Eragrostis lanipes C. E. Hubbard. *Kew Bull.* 1934, 449. (1934).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Western Australia: Tenindewa, between Geraldton and Mullewa, *Palmer s.n.*.

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (375, Fig 306), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (127, Pl 37), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (357 & 374, Fig 64 & 67), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 171, Fig.1 (1997)).

Derivation (Clifford & Bostock 2007): L. lana, wool; pes, foot. Lemmas woolly at the base.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Cataphylls evident. Butt sheaths thickened and forming a bulb, woolly. Culms erect or geniculately ascending, 25–50 cm long. Leaves mostly

basal. Ligule a fringe of hairs. Leaf-blades flat or involute, 5–10 cm long, 1–3 mm wide. Leaf-blade surface smooth or scabrous.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 7–20 cm long, contracted about primary branches or contracted about secondary branches. Primary panicle branches spreading, simple or sparsely divided. Panicle branches stiff. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, truncate, 4–6 mm long, 2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume elliptic, 0.5–0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume margins ciliate (below). Lower glume apex obtuse. Upper glume elliptic, 1.3–2 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume margins ciliate (below). Upper glume apex obtuse.

Florets. Fertile lemma ovate, 1.5–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma margins ciliate, hairy below. Lemma apex obtuse, mucronate. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, South Australia. Kimberley, Ereman, South-West. Central Australia. NW & Lake Eyre, Southern.

Eragrostis lappula Nees. *Fl. Afr. Austr.* 412. (1841).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: CT: *Drige s.n.*, Cap. b. sp. (LE). Herb.Fischer.

Illustrations (Books): R.M.Pohill, F.T.E.A., *Gramineae* (2(1974):190, Fig.60), G.V.Pope et al., *Flora Zambesiaca* 10, L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (164, Fig 134).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. lappa, burr; -ula, diminutive. Spikelets burr-like because the lemmas bear tubercle-based hairs.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–120 cm long. Ligule a fringe of hairs. Leaf-blades convolute, 10–25 cm long, 2–4 mm wide. Leaf-blade surface glabrous or pilose or hirsute.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, linear or ovate, 10–30 cm long. Panicle branches glabrous or pilose, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–10 mm long, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2–2.5 mm long, 0.8 length of upper glume, yellow, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 2.5–3 mm long, 1–1.3 length of adjacent fertile lemma, yellow, 1-keeled, 1 -veined. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, lanceolate in profile, 2–3 mm long, membranous, dark brown or purple, keeled, 3 -veined, 0–3 -veined. Lemma midvein eciliate or ciliate. Lemma lateral veins extending close to apex. Lemma surface tuberculate, rough on veins. Lemma margins ciliate. Lemma apex acute. Palea keels tuberculate, ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.2 mm long. Caryopsis with adherent pericarp, lanceolate, isodiametric, 1–1.5 mm long.

$2n = 40$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, East tropical Africa, South tropical Africa, Southern Africa. DRC. Kenya, Tanzania. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal.

Eragrostis lasseri Luces. *Bol. Soc. Venez. Cienc. Nat.* xv. 6 (1953).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Venezuela. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Venezuela: ha sido coleccionado en formaciones xersfilas circa de. Maracaibo, 12 Jan 1948, *T. Lasser 2660* (HT: VEN).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): In honor of Tobias Lasser (1911-) Venezuelan botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 20–40 cm long. Lateral branches sparse. Leaf-sheaths mostly shorter than adjacent culm internode, outer margin hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades flat or convolute, 3–8 cm long, 1.5–5 mm wide. Leaf-blade surface pilose, sparsely hairy, hairy on both sides. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle spiciform, oblong, continuous or interrupted, 3–9 cm long, 1–2.5 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 11–18 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–6 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1 mm long, 0.9–1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1–1.2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Northern South America. Venezuela.

Eragrostis lateritica Bosser. *Adansonia, n. s.*, viii. 520 (1968).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Madagascar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Madagascar: Centre, Ampandrandava; avril 1943., *Seyrig 672* (HT: P).

Illustrations (Books): J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (163, Fig 56).

Derivation (Clifford & Bostock 2007): L. -ica, belonging to. Growing on laterites.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose, clumped loosely. Culms erect or geniculately ascending, 10–40 cm long. Leaf-sheaths glabrous on surface, outer margin glabrous or hairy. Leaf-sheath oral hairs lacking or ciliate. Ligule a fringe of hairs. Leaf-blades 1.5–5 cm long, 1.5–4 mm wide. Leaf-blade surface glabrous or pilose, hairy on both sides. Leaf-blade margins tuberculate-ciliate.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, oblong or ovate, continuous, 3–8 cm long, 1–3 cm wide. Primary panicle branches ascending, 1 -nate, 1–1.5 cm long, bearing 1–11 fertile spikelets on each lower branch. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 7–40 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 3–15 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.8–1.2 mm long, 0.8–0.9 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1–1.5 mm long, 0.66–0.9 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5–1.8 mm long, membranous, grey, shiny, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels scaberulous, ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

Eragrostis latifolia Cope. *Kew Bull.* 53:144 (1998).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Zimbabwe. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Zimbabwe: Mazoe [Mazowe], 1130 m, Apr 1920, *J. Winter in Herb Eyles 2302* (HT: K).

Illustrations (Journals): *Kew Bulletin* (142, fig.3. (1998)).

Derivation (Clifford & Bostock 2007): *L. latus*, broad; folium, leaf. Leaf-blades broad or relatively broad with respect to related species.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous, persistent and investing base of culm, with compacted dead sheaths. Glands annular. Culms erect, 35–70 cm long. Culm-internodes glandular. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheaths eglandular, without keel, glabrous on surface. Ligule a fringe of hairs. Leaf-blade base amplexicaul. Leaf-blades 5–6.5 cm long, 5 mm wide, eglandular. Leaf-blade margins cartilaginous.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or oblong, loose, 16 cm long. Panicle branches eglandular, bearded in axils, with insignificant pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–2.5 mm long.

Fertile Spikelets. Spikelets comprising 5–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–6 mm long, 1.1–1.3 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 0.8–1.1 mm long, 0.6–0.7 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.3–1.5 mm long, 0.33–0.5 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla. Fertile lemma ovate, dorsally straight along back, 1.8 mm long, membranous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins distinct. Lemma surface scaberulous, rough on veins. Lemma apex acute. Palea 2 -veined. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ellipsoid or oblong, 1.2 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Zimbabwe.

Eragrostis leersiiformis Launert. *Prodr. Fl. Sudwestafr.*, 160. *Gramin.*, Lief. 34, 224, 108 (1970).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Zambia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Zambia: Muckle Neuk, 19 km W of Choma, 27 Feb 1954, *E.A. Robinson 576* (HT: K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. forma*, appearance. Resembling *Leersia*.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 15–40 cm long, 2–5 -noded. Culm-nodes brown. Ligule a fringe of hairs. Leaf-blades 3–17 cm long, 2–7 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or obovate, effuse, 6–17 cm long, 2–9 cm wide. Primary panicle branches ascending or spreading. Panicle branches capillary, flexuous, scabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 2–10 mm long, scabrous.

Fertile Spikelets. Spikelets comprising 3–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–5 mm long, 1 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes brief up to lowest fertile floret or elongated between glumes.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume oblong, 0.1–0.3 mm long, 0.25–0.4 length of upper glume, membranous, without keels, 0 -veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume ovate, 0.4–0.7 mm long, 0.25–0.5 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate or orbicular, 1.5 mm long, 1.4–1.7 mm wide, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma surface scaberulous. Lemma apex acute. Palea bowed outwards. Palea keels contiguous above a sulcus, ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.16 mm long. Caryopsis with adherent pericarp, ellipsoid, 1.2 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa. Zambia. Namibia.

Eragrostis lehmanniana Nees. *Fl. Afr. Austr.* 402. (1841).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: *Drhge s.n.*, South Africa: Cabo de Buena Esperanza (BM, LE).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (146, Fig 113), M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (153, Fig 88), M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (80).

Illustrations (Journals): *Sida* (21: 1382, Fig.4D-E (2005)).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. -ana, indicating connection. In honor of Friedrich Karl Lehmann (1850–1903) who collected in South America.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths papery, pallid, without ribs, glabrous or sparsely hairy. Culms erect or geniculately ascending, 30–60 cm long, without nodal roots or rooting from lower nodes. Culm-nodes glabrous. Lateral branches sparse. Ligule a fringe of hairs. Leaf-blades flat or involute, 50–100 cm long, 1.5–2.8 mm wide. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, 6–20 cm long. Panicle branches glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–13 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 4–8 mm long, 1–1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets disarticulating separately.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.5 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume elliptic, 1.2–2 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla. Fertile lemma elliptic, 1.5 mm long, membranous, pallid or dark green or grey or red, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex obtuse. Palea keels smooth or scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.7 mm long. Caryopsis with adherent pericarp, oblong, 0.6 mm long.

$2n = 20$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe (*), Africa, Temperate Asia, Tropical Asia, North America, South America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **South tropical Africa, Southern Africa.** Angola, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Northern Cape, Western Cape, Eastern Cape. **Western Asia.** Iran. **Indian Subcontinent.** India. **Southwestern USA, South-central USA, Mexico.** Arizona, California, Utah. New Mexico, Texas. Central Mexico, Northeast Mexico, Northwest Mexico. **Northern South America, Brazil.** Venezuela. Brazil Northeast.

TDWG4. Mendoza. Mexico State. Coahuila, Chihuahua, Zacatecas. Sonora.

Eragrostis lepida (A.Rich.) Hochst. ex Steud. *Syn. Pl. Glum.* 1:269 (1854).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Eritrea. **Basionym or Replaced Name:** *Poa lepida* A.Rich., *Tent. Fl. Abyss.* 2: 424. (1850). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: *G.H.W. Schimper 1040*, 31 Mar 1839, Eritrea: Ad pagum Ailet in provincia Modat (GOET-5797, K, L, LE, MO).

Illustrations (Books): L.Boulos, *Flora of Egypt* 4 (2005) (254, Pl. 75).

Derivation (Clifford & Bostock 2007): *L. pretty*. Plants with an attractive appearance as with colored spikelets.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms 10–40 cm long. Ligule a fringe of hairs. Leaf-blades 2–10 cm long, 1–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate or elliptic, 3–10(–15) cm long. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 2.2–3 mm long, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, reaching apex of florets. Lower glume lanceolate, 0.6–0.9 mm long, 0.6–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 0.9–1.1 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute, muticous or mucronate.

Florets. Fertile florets divergent. Fertile lemma oblong, (0.8–)1.1–1.2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma surface scaberulous. Lemma apex truncate, mucronate. Palea 2 -veined. Palea keels tuberculate, pectinate (hairs 0.3–0.4mm). Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2, 0.1–0.15 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa, Temperate Asia.

Country /Province /State. Northern Africa, Northeast tropical Africa, East tropical Africa. Egypt. Djibouti, Eritrea, Socotra, Somalia, Sudan. Kenya. Arabian Peninsula. Saudi Arabia.

Eragrostis lepidobasis Cope. *Kew Bull.* 53:153 (1998).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online.

TYPE from Zambia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Zambia: Mwinilunga Distr.: Kalenda Plain, w of Matonchi, 1340 m, 21 Dec 1969, *Simon & Williamson 1927* (HT: K; IT: SRGH).

Illustrations (Books): G.V. Pope et al., *Flora Zambesiaca* 10 (2(1999):120, t. 38).

Illustrations (Journals): *Kew Bulletin* (156, fig. 6. (1998)).

Derivation (Clifford & Bostock 2007): *Gk lepis*, scale; *basis*, that which supports something.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Cataphylls evident. Butt sheaths glabrous, persistent and investing base of culm, with compacted dead sheaths. Culms erect, 35–75 cm long, wiry. Culm-internodes eglandular. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheaths eglandular, without keel, glabrous on surface. Ligule a fringe of hairs. Leaf-blades filiform, involute, 5–9 cm long, 0.5 mm wide, eglandular. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, linear, 2.5–6.5 cm long, bearing few spikelets. Primary panicle branches appressed, distant, indistinct the panicle almost racemose. Panicle branches eglandular, glabrous in axils, with insignificant pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, straight, 2–3 mm long, eglandular.

Fertile Spikelets. Spikelets comprising 8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 5–6 mm long, 2.5–3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes obscured by lemmas.

Glumes. Glumes similar, shorter than spikelet. Lower glume ovate, 2.6–2.8 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 2.6–2.8 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent. Fertile lemma elliptic or ovate, 3 mm long, cartilaginous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex obtuse. Palea 2 -veined. Palea keels pubescent. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1.5 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Angola, Zambia.

Eragrostis leptocarpa Benth. *Fl. Austral.* vii. 644. (1878).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *Birch s.n.*, Australia: Queensland: Mitchell District

ST: *Giles s.n.*, Australia: Central Australia: Charlotte Waters.

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (375, Fig 307), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (379, Fig 68), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (253), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 173, Fig.3 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): Gk. leptos, slender; karpos, fruit. Grains elongated.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Butt sheaths green or purple. Culms slender, 30–60 cm long, 3–4-noded. Culm-nodes glabrous. Leaf-sheaths smooth, glabrous on surface. Ligule a fringe of hairs. Leaf-blades flat or involute, 10–15 cm long, 2 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate or elliptic, 15–23 cm long, 10 cm wide. Primary panicle branches appressed or ascending or spreading or drooping, whorled at lower nodes, moderately divided, 3–6 cm long. Panicle branches capillary, scaberulous, with prominent pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–3.25 mm long, scaberulous.

Fertile Spikelets. Spikelets comprising 4–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate or elliptic, laterally compressed, 4–6 mm long, 0.75–1 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes 0.5–0.75 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.5 mm long, 0.33–0.5 length of upper glume, hyaline, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1–1.25 mm long, 0.66 length of adjacent fertile lemma, hyaline, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic, 1.75–2 mm long, scarious, much thinner on margins, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent, close to margins. Lemma surface scabrous. Lemma apex emarginate. Palea 1 length of lemma. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, oblong, 0.75–1.25 mm long.

Distribution (TDWG). Continent. Europe (*), Australasia.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Australia.** Western Australia, Northern Territory, South Australia, Queensland, New South Wales, Victoria.

Ereman. Darwin & Gulf, Central Australia. NW & Lake Eyre, Southern. Central, South East, Inland. Coast, Western Plains.

Eragrostis leptophylla Hitchcock. *Mem. Bishop Mus., Honolulu*, viii. 133 (1922).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Hawaii. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *A.S.Hitchcock 14458*, 29 Aug 1916, Hawaii: Plain between Mauna Kea and Mauna Loa, W of Humuula Sheep Station, alt. 1700 m, sandy soil (US-836477; IT: LE, US-3232312).

Illustrations (Books): W.L.Wagner et al., *Manual of the Flowering Plants of Hawai'i*, Vol. 2 (1990) (1539, Pl. 227).

Derivation (Clifford & Bostock 2007): Gk. leptos, narrow; phyllon, leaf. Leaf-blades narrow.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms erect, 100 cm long. Leaf-sheaths outer margin hairy. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs, 0.2–0.5 mm long. Leaf-blades filiform, involute, 1–2 mm wide.

Inflorescence. Inflorescence a panicle. Panicle spiciform, linear, 15–30 cm long, 0.5–0.8 cm wide. Panicle axis scabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, scabrous.

Fertile Spikelets. Spikelets comprising 8–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 10 mm long, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex attenuate. Upper glume lanceolate, 5 mm long, 1.7 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins distinct. Upper glume apex attenuate.

Florets. Fertile lemma ovate, 3 mm long, chartaceous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins obscure. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Pacific.

Country /Province /State. North-central Pacific. Hawaii.

Eragrostis leptostachya (R.Br.) Steud. *Syn. Pl. Gram.* 279. (1854).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Australia. **Basionym or Replaced Name:** *Poa leptostachya* R. Br., *Prodr.* 180 (1812). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: T: 6276, 1802–1805, Australia: "Inter australiense".

Recent Synonyms: *Eragrostis hosakai* Degener, *Fl. Hawaiiensis, Fam.* 47 (1940).

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (253), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (374 & 391, Fig 67 & 70), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 172, Fig.2 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): Gk. leptos, narrow; stachys, ear of corn.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Glands annular. Culms erect or geniculately ascending, 50–100 cm long. Lateral branches ample. Ligule a fringe of hairs, 0.5 mm long. Leaf-blades 15–25 cm long, 2–3 mm wide. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, linear or lanceolate, 15–30 cm long, 2–4 cm wide. Primary panicle branches ascending, 4–8 cm long. Panicle branches scaberulous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 2–6 mm long, glandular.

Fertile Spikelets. Spikelets comprising 4–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–6 mm long, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.2–1.3 mm long, 0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5–2 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2–2.2 mm long, membranous, dark green or grey, shiny, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma apex obtuse. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, oblong, 1 mm long, dark brown or red.

Distribution (TDWG). Continent. Europe (*), Australasia, Pacific.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Australia.** Queensland, New South Wales, Victoria. **South-central Pacific, North-central Pacific.** Easter Is. Hawaii (*).

North, Central, South East. Coast, Tablelands, Western Slopes.

Eragrostis leptotricha Cope. *Kew Bull.* 53:147 (1998).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Botswana. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Botswana: headwater valley of the Qangwa River, 22 Apr 1981, P.A. Smith 3657 (HT: SRGH; IT: K).

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10.

Illustrations (Journals): *Kew Bulletin* (148, fig.4. (1998)).

Derivation (Clifford & Bostock 2007): Gk. leptos, narrow; thrix, hair. Inflorescence branches very thin.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, short-lived, caespitose. Butt sheaths pilose, persistent and investing base of culm, with compacted dead sheaths. Glands sunken crateriform. Culms erect, 30–60 cm long, wiry. Culm-internodes eglandular. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheaths longer than adjacent culm internode, eglandular or glandular, without keel, pilose. Ligule a fringe of hairs. Leaf-blades involute, 6–30 cm long, 1–2.5 mm wide, eglandular. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or oblong, effuse, 16–25 cm long. Panicle branches capillary, eglandular, bearded in axils, with insignificant pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 1–2.5 mm long.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, compressed slightly, 1.4–2 mm long, 0.8–1 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate or oblong, 0.8–1.2 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex obtuse or acute. Upper glume lanceolate or oblong, 0.8–1.2 mm long, 0.5–0.6 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex obtuse or acute.

Florets. Fertile florets divergent. Fertile lemma elliptic, 0.9–1.2 mm long, membranous, grey, without keel or keeled, lightly keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma margins pilose. Lemma apex obtuse or acute. Palea 2 -veined. Palea keels scaberulous, adorned above. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.6–0.8 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa. Zimbabwe. Botswana.

Eragrostis leucosticta Nees ex Doell. *Mart. Fl. Bras.* ii. III. 144. (1878).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Brazil, Itambe de Matte Dentro: Martius 5091 (BAA isosyn, LE, US) ; Brazil, Caldas: Regnell III 1413 (P isosyn) ; Brazil: Schott 4850.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. leukos, white; stictos, spotted. Leaf-blade with white spots.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 20–40 cm long. Ligule a fringe of hairs. Leaf-blades 5–8 cm long, 1–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 6–9 cm long. Primary panicle branches spreading. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, eglandular.

Fertile Spikelets. Spikelets comprising 4–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 3–4 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil. Brazil West Central, Brazil Northeast, Brazil Southeast, Brazil South.
TDWG4. Minas Gerais, Rio de Janeiro, Espirito Santo, Sao Paulo Parana.

Eragrostis lingulata W. D. Clayton. *Kew Bull.* xx. 269 (1966).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Portugese Guinea: Pirada, 18 Nov 1952, *Esp. Santo 7/1957* (HT: K).

Illustrations (Books): F.N.Hepper, *F.W.T.A.* 3(2) (1972) (392, Fig.430).

Illustrations (Journals): *Kew Bulletin* (20:270, Fig.5 (1966)).

Derivation (Clifford & Bostock 2007): spikelets tongue-shaped in outline.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 20–30 cm long, 2–3 -noded. Ligule a fringe of hairs. Leaf-blades 4–8 cm long, 2–4 mm wide, glaucous. Leaf-blade surface pilose, hairy adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, linear or elliptic, dense, 6–15 cm long, contracted about primary branches. Primary panicle branches bearing spikelets almost to the base. Panicle branches glabrous in axils. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 10–100 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 7–35 mm long, 2–2.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets falling as a whole. Rhachilla internodes definite.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2.5–3 mm long, 0.9 length of upper glume, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 2.6–3.2 mm long, 1–1.1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent, imbricate to tip. Fertile lemma ovate, 2.5–2.7 mm long, membranous, dark brown or purple, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2, 0.1–0.2 mm long. Caryopsis with adherent pericarp, orbicular, isodiametric, 0.3–0.4 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa. Guinea-Bissau, Guinea, Mali.

Eragrostis longifolia Hochst. ex Steud. *Syn. Pl. Glum.* 1:268 (1854).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ethiopia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *G.H.W. Schimper* 272, 26 Jun 1837, Ethiopia: Tigray: Memsah, Kubbi (WAG).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. longus*, long; folium, leaf. With long leaf-blades.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths coriaceous, distinctly ribbed, persistent and investing base of culm. Culms 25–50 cm long. Ligule a fringe of hairs. Leaf-blades aciculate, involute, 3–25 cm long, 1–1.5 mm wide. Leaf-blade surface pilose.

Inflorescence. Inflorescence a panicle, comprising 3–10 fertile spikelets. Panicle contracted, linear, 2–6 cm long, bearing few spikelets. Primary panicle branches indistinct the panicle almost racemose. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong.

Fertile Spikelets. Spikelets comprising 5–17 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 6–12 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume oblong, 2–3.2 mm long, 1 length of upper glume, membranous, 1-keeled, 1–3 -veined. Lower glume apex acute. Upper glume ovate, 2–3.2 mm long, 0.8–0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1–3 -veined. Upper glume apex acute.

Florets. Fertile florets divergent, free at tip. Fertile lemma ovate, lanceolate in profile, 2.5–3.5 mm long, cartilaginous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute.

Palea 2 -veined. Palea keels winged, narrowly winged, scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1–1.5 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa, Temperate Asia.

Country /Province /State. Northeast tropical Africa. Ethiopia (inc. Eritrea). Arabian Peninsula. Yemen.

Eragrostis longipedicellata B.K. Simon. *Austrobaileya*, 1(5): 465 (1983).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: *S.T. Blake 14213*, 16 May 1940, Australia: Queensland: Burnett: Proston (CANB, K, L).

Illustrations (Books): D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Derivation (Clifford & Bostock 2007): *L. longus*, long; pedicellus, stalk; -ata, possessing. Spikelets with long pedicels.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 40–80 cm long, 2–4 -noded. Culm-internodes smooth, distally pubescent. Culm-nodes pallid. Lateral branches lacking. Leaves mostly basal. Leaf-sheaths longer than adjacent culm internode. Ligule a fringe of hairs, 0.2 mm long. Leaf-blades filiform, 5–10 cm long, 1 mm wide. Leaf-blade surface pilose, sparsely hairy.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 9–18 cm long, 3–9 cm wide. Primary panicle branches branching divaricately. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 2–6 mm long.

Fertile Spikelets. Spikelets comprising 7–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 4–8 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.5 mm long, 0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1–1.5 mm long, 0.66–0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea 1 mm long. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.3 mm long. Caryopsis with adherent pericarp, oblong, 0.6 mm long. Embryo 0.5 length of caryopsis.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland.

Central, South East.

Eragrostis longiramea Swallen. *Journ. Wash. Acad. Sc.* xxi. 437. (1931).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Mexico. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *H.H. Bartlett 10910*, 12 Aug 1930, Mexico: Tamaulipas (US-1501524; IT: GH, MICH, US-1611156, US-3160925).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. longus*, long; *ramus*, branch; *-osus*, abundance. Culm branches long.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 125–180 cm long. Leaf-sheaths mostly shorter than adjacent culm internode, keeled, hirsute, with tubercle-based hairs. Ligule a fringe of hairs. Leaf-blades flat or conduplicate or involute, 25–60 cm long, 5–9 mm wide. Leaf-blade surface scabrous, rough adaxially, glabrous, hairless except near base. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 50–70 cm long, 25–55 cm wide. Primary panicle branches ascending or spreading or reflexed, 12–25 cm long. Panicle branches bearded in axils. Spikelets ascending or spreading, solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 2.5–10 mm long, scabrous.

Fertile Spikelets. Spikelets comprising 5–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets lanceolate or ovate, laterally compressed, 2–5 mm long, 1.6–1.8 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate or ovate, 1.2–1.6 mm long, 0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate or ovate, 1.4–2 mm long, 0.75–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute or acuminate.

Florets. Fertile lemma ovate, 1.8–2 mm long, 1.2 mm wide, membranous, keeled, keeled above, 3 -veined, 0–3 -veined. Lemma midvein scabrous. Lemma lateral veins distinct. Lemma apex acute. Palea 0.8–1 length of lemma. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, ovoid, 0.8 mm long, green.

Distribution (TDWG). Continent. North America.

Country /Province /State. Mexico. Northeast Mexico, Southwest Mexico.

Eragrostis lugens Nees. *Agrost. Bras.* 507. (1829).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Uruguay. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *F. Sellow s.n.*, no date, Uruguay: Montevideo (US-732957; ILT: B, BM (possible), BAA-2932). LT designated by Witherspoon, Ph. D. thesis (1975) [not effectively published]; sheet label cites location as Brazil: LT published by Davidse, *Fl. Mesoamericana* 6: 271 (1994), accepted by Boechat & Longi Wagner, *Iheringia* 55: 125 (2001).

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (254), M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (96), S.A.Renvoize, *The Grasses of Bahia*, 1984 (67, Fig. 24), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (356 & 357, Fig. 82 & 83), A.Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (199, Fig. 71 & 202, Fig. 72), A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (347, Fig. 90), M.N.Correa, *Flora Patagonica Parte III, Gramineas* (1978) (485, Fig. 328), B.Rosengurt, *Gramineas Uruguayas I* (1970) (258, Fig. 106).

Illustrations (Journals): *Sida* (21: 1393, Fig.10D-G (2005)).

Derivation (Clifford & Bostock 2007): *L. lugeo*, mourn. The spikelets are dull in color.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 35–70 cm long. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades involute, 8–20 cm long, 1–2 mm wide. Leaf-blade surface glabrous. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, ovate or pyramidal, 18–28 cm long, 10–13 cm wide. Primary panicle branches whorled at lower nodes, 9–15 cm long. Panicle branches capillary, flexuous, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 3–4.5 mm long, 0.5–1 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.6–1 mm long, 0.5–0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.1–1.4 mm long, 0.75–0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5–1.6 mm long, membranous, grey, shiny, keeled, lightly keeled, keeled above, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ellipsoid, without sulcus, 0.5–0.6 mm long.

Distribution (TDWG). Continent. Europe (*), North America, South America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **North-central USA, South-central USA, Southeastern USA, Mexico.** Oklahoma. Texas. Alabama, Florida, Louisiana, Mississippi, South Carolina, Tennessee. Central Mexico, Northeast Mexico, Northwest Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica, Northern South America, Western South America, Brazil, Southern South America.** El Salvador, Guatemala, Venezuela. Bolivia, Colombia, Ecuador, Peru. Brazil West Central, Brazil Northeast, Brazil Southeast, Brazil South. Argentina Northeast, Argentina South, Argentina Northwest, Chile Central, Paraguay, Uruguay.

TDWG4. Bahia, Sao Paulo Parana, Catarina, Rio Grande do Sul. Catamarca, Jujuy, La Rioja, Mendoza, Salta, Santiago del Estero, San Juan, San Luis, Tucuman. Buenos Aires, Chaco, Cordoba, Corrientes, Distrito Federal, Entre Rios, Formosa, La Pampa, Misiones, Santa Fe. Mexico State, Puebla. Coahuila, Chihuahua, Guanajuato, Hidalgo, Zacatecas. Sinaloa. Jalisco, Michoacan. Chiapas, Tabasco, Yucatan.

Eragrostis lurida J. & C. Presl. *Rel. Haenk.* 276. (1830).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Peru. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *T. Haenke s.n.*, Peru (PR; IT: MO-2111146, PR, US-2941523 (fragm. ex PR)).

Illustrations (Books): S.A.Renvoize, *Gramineas de Bolivia* (1998) (Fig. 64), G.Harling & C.Persson, *Flora of Ecuador* (2006) (68: 41, Fig. 5 (2001)).

Illustrations (Journals): *Ann. Missouri Bot. Gard.* (94: 761 fig 10 (2007) as subsp.*lurida*).

Derivation (Clifford & Bostock 2007): drab yellow. Lemmas or glumes brownish-yellow.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms geniculately ascending or decumbent, 15–60 cm long. Ligule a fringe of hairs. Leaf-blades 2–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate, dense, 5–20 cm long, with spikelets clumped along branches. Primary panicle branches ascending or spreading, distant, 1–5 cm long. Panicle branches stiff. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–5 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.5–2 mm long, 0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5–2 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.8–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma surface scabrous, rough above. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America. Bolivia.

Eragrostis lutensis T.A. Cope. *Kew Bull.*, 50(1): 113 (1995).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Somalia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Somalia: Toghdeer, Ber, *Glover & Gilliland* 32 (HT: K).

Illustrations (Journals): *Kew Bulletin* (50: 114, Fig.3 (1995)).

Derivation (Clifford & Bostock 2007): *L. lutum*, mud; *-ensis*, denoting origin. Growing in mud.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 40 cm long. Ligule a fringe of hairs. Leaf-blades 4–5 mm wide, stiff. Leaf-blade surface scabrous, rough on both sides. Leaf-blade margins eglandular. Leaf-blade apex pungent.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 8–10 cm long. Primary panicle branches simple. Panicle branches eglandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, eglandular.

Fertile Spikelets. Spikelets comprising 5–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 4–7.5 mm long, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets falling as a whole.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.6–2.1 mm long, 0.75 length of upper glume, eglandular, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 2.1–2.3 mm long, 0.9 length of adjacent fertile lemma, eglandular, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma oblong, 2.2–2.4 mm long, chartaceous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scabrous. Lemma surface scaberulous, rough above. Lemma apex obtuse. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.2 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa. Somalia.

Eragrostis lutescens Scribn. *U.S. Dept. Agric. Agrost. Circ. ix. 7.* (1899).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: *C.V. Piper 2624*, 30 Jul 1897, USA: Washington (US-1761632, US-3161126). Publ. cites collection date as 7 Jul 1897.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (82), T.A.Cope, in M.Thulin, *Poaceae* (Gramineae). *Flora of Somalia* (1995).

Derivation (Clifford & Bostock 2007): *L. lutesco*, become yellow. Panicles yellowish-green.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 10–20 cm long. Leaf-sheaths glandular, pilose. Ligule a fringe of hairs, 0.5 mm long. Leaf-blades 3–9 cm long, 1–2 mm wide, glandular. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate, 2–10 cm long, 0.8–2 cm wide. Primary panicle branches appressed or ascending, 1–3.5 cm long. Panicle branches glandular, scabrous, glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–3 mm long, glandular, scabrous.

Fertile Spikelets. Spikelets comprising 6–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–7.5 mm long, 1–1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5 mm long, 0.75–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5–2 mm long, membranous, eglandular, keeled, 3 -veined, 0–3 -veined. Lemma midvein without distinctive roughness or scaberulous. Lemma lateral veins distinct. Lemma apex acute. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ellipsoid, 0.7 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. Northwest USA, Southwestern USA, South-central USA. Colorado, Washington. Arizona, California, Nevada. New Mexico.

Eragrostis macilenta (A. Rich.) Steud. *Syn. Pl. Gram.* 268. (1854).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from Ethiopia. **Basionym or Replaced Name:** *Poa macilenta* A. Rich., *Tent. Fl. Abyss.* 2: 428 (1850)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Quartin-Dillon et Petit*, Abyssinie: Trigre, Adua (P; IT: LE).

Illustrations (Books): R.M.Phill, F.T.E.A., *Gramineae* (2:196, Fig.62), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (155, Fig 52 as *E. passa*), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (120, Fig 49).

Derivation (Clifford & Bostock 2007): *L. thin*. Culms slender.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 7–60 cm long. Leaf-sheaths eglandular. Ligule a fringe of hairs. Leaf-blades 2–20 cm long, 2–5 mm wide, flaccid, light green. Leaf-blade margins eglandular.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, effuse, 3–35 cm long. Primary panicle branches not whorled or whorled at lower nodes (rarely). Panicle branches eglandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 2–12 mm long, eglandular.

Fertile Spikelets. Spikelets comprising 5–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–6 mm long, 1–2 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.1–1.5 mm long, 1 length of upper glume, herbaceous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 1.1–1.5 mm long, 0.8–0.9 length of adjacent fertile lemma, herbaceous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile florets divergent (at 45 degrees), free at tip. Fertile lemma orbicular, ovate in profile, 1.3–1.6 mm long, membranous, mid-green or dark green or black, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma surface smooth or scaberulous. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.3–0.5 mm long. Caryopsis with adherent pericarp, oblong, 0.5 mm long.

Distribution (TDWG). Continent. Europe (*), Africa, Temperate Asia, Tropical Asia.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Western Indian ocean.** Ivory Coast, Nigeria. Cameroon, Rwanda, DRC. Eritrea, Ethiopia (inc. Eritrea), Sudan. Kenya, Tanzania, Uganda. Angola, Mozambique, Zambia, Zimbabwe. Madagascar. **Arabian Peninsula.** Yemen. **Indian Subcontinent.** India.

TDWG4. Tamilnadu.

Eragrostis macrochlamys Pilger. *Engl. Jahrb.* xlviii. 346 (1912).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

Basionym or Replaced Name: *Eragrostis wilmaniae* C.E.Hubb. & Schweickerdt, *Kew Bull.* 1939, 652 (1940). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Dinter 2140*, Bullsporter Fldche

ST: *Range 269*, Sdlich Kubub

ST: *Range 900*, Kamms.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (176, Fig 147).

Derivation (Clifford & Bostock 2007): Gk. makros, large; chlamys, cloak. Glumes long with respect to the length of the spikelet.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Butt sheaths glabrous or sparsely hairy. Culms erect or geniculately ascending or decumbent, 4–30 cm long. Leaf-sheaths eglandular or glandular. Ligule a fringe of hairs. Leaf-blades 5–20 cm long, 2–3 mm wide, eglandular or glandular.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear or oblong, 2–6 cm long. Panicle branches capillary, eglandular or glandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or ovate, laterally compressed, 4–5 mm long, 3–4 mm wide, breaking up at maturity, rachilla deciduous, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 3 mm long, 1 length of upper glume, membranous, glandular (on keel), 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 3 mm long, 1.5 length of adjacent fertile lemma, membranous, glandular (on keel), 1-keeled, 3 -veined. Upper glume apex acuminate.

Florets. Fertile lemma orbicular, 2 mm long, membranous, pallid or grey, eglandular or glandular on veins, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute, muticous or mucronate. Palea keels scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.2–0.4 mm long. Caryopsis with adherent pericarp, ellipsoid or oblong. Embryo 0.4 length of caryopsis.

Distribution (TDWG). Continent. Europe (*), Africa.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **South tropical Africa, Southern Africa.** Namibia, Botswana, North-West, Northern Cape.

Eragrostis macrothyrso Hackel. *Fedde, Repert. Nov. Sp.* viii. 47 (1910).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Paraguay. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: *K. Fiebrig 5166*, Sep 1909, Paraguay: Paraguay septentrionale (BAA-1047, K, US-1099649, US-2764900).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. makros, large; thyrsos, ornamental wand. Inflorescence a large panicle.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms 70 cm long. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs. Leaf-blades 35 cm long, 5 mm wide, stiff. Leaf-blade surface scabrous, rough adaxially, glabrous, hairless except near base. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or oblong, 35–70 cm long, 15–30 cm wide. Primary panicle branches 5–7 -nate, whorled at lower nodes, 10–20 cm long. Panicle branches scabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, obtuse, 5.7 mm long, 1.8 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.2 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins prominent. Lemma apex acuminate. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Brazil, Southern South America. Bolivia. Paraguay.

Eragrostis maderaspatana Bor. *Grasses Burma, Ceyl., Ind. & Pakist.* 509 (1960).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from India & Sri Lanka. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Wight 1799*, Madras

ST: *Glenie C.P. 3944*, Ceylon.

Illustrations (Books): K.M.Matthew, *Flora Palni Hills* (1996) (826, Pl 826).

Derivation (Clifford & Bostock 2007): L. -ana, indicating location. From Maderaspata, that is Madras, India.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms geniculately ascending or decumbent, 10–45 cm long. Leaf-sheath oral hairs lacking. Ligule a fringe of hairs. Leaf-blades 1–7 cm long, 1–2 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 3–8 cm long. Primary panicle branches spreading, 1 -nate. Panicle branches stiff. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 8–25 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–10 mm long, 1.2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.7 mm long, 0.5–0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.2 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

N = 30 (1 ref TROPICOS).

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent. India.
TDWG4. Karnataka. Tamilnadu.

Eragrostis magna Hitchcock. *Contrib. U. S. Nat. Herb.* xxiv. 341 (1927).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Peru. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *J.F. MacBride 4069*, 20 May-1 Jun 1923, Peru: near Muna (F-535136; IT: US-1256382).

Illustrations (Journals): *Ann. Missouri Bot. Gard.* (94: 770 fig 14 (2007)).

Derivation (Clifford & Bostock 2007): L. large. Plants large and generally with tall culms.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms robust, 100–150 cm long, 3–6 mm diam., 3-noded. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.5 mm long. Leaf-blades flat or involute, 40–60 cm long, 3–7 mm wide. Leaf-blade surface hirsute, hairy adaxially. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate, 30–50 cm long. Primary panicle branches ascending, 10–20 cm long, bearing spikelets almost to the base. Panicle axis glabrous. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, flexuous, scabrous.

Fertile Spikelets. Spikelets comprising 7–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 7–10 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 2.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 2.5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic, 2–2.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea 1 length of lemma. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America. Peru.

Eragrostis mahrana Schweinf. *Bull. Herb. Boiss.* ii. App. 2, 38 (1894).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Aden. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Aden: Schweinfurth 208 (K iso).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, cushion forming. Rootstock evident. Culms 10–30 cm long, woody. Lateral branches suffrutescent. Leaves distichous. Ligule a fringe of hairs. Leaf-blades deciduous at the ligule, 0.5–3 cm long, 1–2.5 mm wide, glaucous. Leaf-blade surface ribbed, pubescent, hairy adaxially. Leaf-blade apex pungent.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 3–7 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong, 0.5–1 mm long.

Fertile Spikelets. Spikelets comprising 5–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, straight or curved, laterally compressed, 4–14 mm long, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets disarticulating into irregular segments.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.3–1.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.3–1.5 mm long, 0.6–0.7 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent. Fertile lemma elliptic, 1.9–2.6 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma surface scaberulous. Lemma apex obtuse. Palea 1–1.1 length of lemma, 2 -veined. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1–1.2 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa, Temperate Asia.

Country /Province /State. Northeast tropical Africa. Ethiopia (inc. Eritrea), Somalia. **Arabian Peninsula.** Oman, Yemen.

Eragrostis majungensis A. Camus. *Bull. Soc. Bot. France*, 102: 348 (1956).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Madagascar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Madagascar, Majungo: Perrier 11060.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms erect, slender, 40–60 cm long. Culm-internodes smooth. Culm-nodes brown, glabrous. Lateral branches ample. Leaf-sheaths striately veined, glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades flat or convolute, 6–12 cm long, 1–2 mm wide. Leaf-blade apex apiculate.

Inflorescence. Inflorescence a panicle. Panicle open, ovate or pyramidal, effuse, 15–25 cm long, 9–10 cm wide. Primary panicle branches 1–2 -nate, 4–11 cm long. Panicle branches flexuous, glabrous in axils or bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, flexuous, 5–12 mm long.

Fertile Spikelets. Spikelets comprising 10–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4.5–5.5 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes 0.5 mm long, obscured by lemmas, glabrous.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume oblong, 0.6–0.8 mm long, 0.66 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume oblong, 1–1.2 mm long, 0.75 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma oblong, 1.3–1.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea 1.2 mm long. Apical sterile florets resembling fertile though underdeveloped.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

Eragrostis malayana Balansa. *Morot, Journ. de Bot.* iv. 168. (1890).

Regarded by K as a synonym (*E. montana*).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from India. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: India: Perak, Wray 773 (LT: K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. *-ana*, indicating connection. From Peninsula Malaysia and southern Thailand.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Cataphylls evident. Culms decumbent, 30–60 cm long. Leaf-sheaths 2–4 cm long, glabrous on surface. Ligule a fringe of hairs. Leaf-blades involute, 5.5–8 cm long, 3 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 5–12 cm long, contracted about primary branches. Primary panicle branches 2–5 cm long. Panicle axis smooth. Panicle branches scabrous, glabrous in axils or bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 12–18 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 3–7 mm long, 1.8–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes 0.2–0.25 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.8 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume orbicular, 1.1 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute, mucronate.

Florets. Fertile lemma ovate, 1.2 mm long, membranous, grey, eglandular, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma surface scabrous, rough on veins. Lemma apex acute. Palea keels eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.25 mm long. Caryopsis with adherent pericarp, ovoid, 0.4 mm long.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indo-China, Malaysia. Thailand. Borneo, Sumatra, Malaya.

Eragrostis mandrarenensis A. Camus. *Not. Syst.*, ed. Humbert, 13: 263 (1949).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Madagascar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Madagascar, Mt. Morahariva: Perrier 11060.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms erect, 60 cm long, 5–6 -noded. Leaf-sheaths striately veined, glabrous on surface. Ligule absent. Leaf-blades erect, convolute, 6–16 cm long.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 12–35 cm long, 2.5–6 cm wide. Primary panicle branches 1–2 -nate. Panicle branches flexuous, scaberulous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 4–10 mm long.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3 mm long, 1 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.5 mm long, 0.9 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.6 mm long, 1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5–1.7 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea 0.8–1 mm long. Palea keels winged, narrowly winged, scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, ellipsoid, 0.8 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

Eragrostis mariae Launert. *Bol. Soc. Brot., Ser. 2*, v. 16 (1961).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Zambia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Zambia, Lake Chila: McCallum-Webster A30 (K holo, BM, SRGH).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Mary Isobel Stuart McCallum (1899–1979) Rhodesian (Zimbabwean), nurse and amateur botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 25–50 cm long, 3–5 -noded. Culm-internodes 4–10 cm long. Lateral branches lacking. Leaf-sheaths glabrous on surface or pubescent. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs. Leaf-blades flexuous, conduplicate or involute, 6–15 cm long, 1–2 mm wide. Leaf-blade surface scaberulous, rough adaxially, glabrous or pilose, sparsely hairy.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic to ovate, 10–15 cm long, 4–8 cm wide. Panicle axis scaberulous. Panicle branches scaberulous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 1.5–5 mm long, scaberulous.

Fertile Spikelets. Spikelets comprising 5–16 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 4–10 mm long, 2.5–3 mm wide, breaking up at maturity, rachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2.2–2.5 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 3 mm long, 1.3 length of adjacent fertile

lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma lanceolate or elliptic, 2.25 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins excurrent. Lemma surface scaberulous, rough on veins. Lemma apex dentate, 3 -fid, acute. Palea 1.8–2 mm long. Palea keels ciliolate, with hairs 0.4 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1.25 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Zambia.

Eragrostis mauiensis Hitchcock. *Mem. Bishop Mus., Honolulu*, viii. 129 (1922).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Hawaii. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: 1838 to 1842, Hawaii: Maui: Sandhills, Wailuku (US-2850904 (fragm.)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From Maui, one of the Hawaii Islands.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms geniculately ascending, 30–40 cm long. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs, 0.5 mm long. Leaf-blades involute, 10–15 cm long, 1–2 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, 15–25 cm long, 5–7 cm wide. Primary panicle branches ascending, 5–10 cm long. Panicle axis scabrous. Panicle branches straight, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 5–12 mm long.

Fertile Spikelets. Spikelets comprising 8–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 7–10 mm long, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.7 mm long, 0.8 length of upper glume, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 2 mm long, 0.8–1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 2–2.5 mm long, chartaceous, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, oblong, 1–1.2 mm long, dark brown.

Distribution (TDWG). Continent. Pacific.

Country /Province /State. North-central Pacific. Hawaii.

Eragrostis maypurensis (Kunth) Steud. *Syn. Pl. Gram.* 276; *Doell, in Mart. Fl. Bras.* ii. III. 153. (1854).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Venezuela. **Basionym or Replaced Name:** *Poa maypurensis* Kunth, *Nov. Gen. Sp. (quarto ed.)* 1: 161–162 (1815) [1816]

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Humboldt & Bonpland s.n.*, Apr, Venezuela: Amazonas: on the Rmo Orinoco (P; IT: BAA-1053 (fragm.), P, US-2850758 (fragm. ex P-HBK, fragm. ex B-WILLD)).

Illustrations (Books): S.A.Renvoize, *Gramineas de Bolivia* (1998) (313, Fig 66), S.A.Renvoize, *The Grasses of Bahia*, 1984 (71, Fig. 25), W.Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (218, Fig 74).

Illustrations (Journals): *Ann. Missouri Bot. Gard.* (94: 772 fig 15 (2007)), *Ruizia* (13:245, Fig 28d-f (1993)).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From the catarract of "Saint Joseph Maypurensium" on the Orinoco River, Venezuela.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending or decumbent, 15–70 cm long, 0.5–1 mm diam. Culm-internodes distally glabrous. Culm-nodes glabrous. Lateral branches lacking or

sparse. Leaf-sheaths glabrous on surface to pilose. Leaf-sheath oral hairs ciliate, 2–4 mm long. Ligule a fringe of hairs, 0.2–0.3 mm long. Leaf-blades 4–15 cm long, 2–4 mm wide. Leaf-blade surface glabrous or pilose, hairy adaxially or on both sides, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Peduncle 7–15 cm long, glabrous or pilose above. Panicle open, pyramidal, dense, 4–20 cm long. Primary panicle branches 1-nate, simple or sparsely divided, 2–4.5 cm long, bearing spikelets almost to the base. Panicle branches glabrous to pilose, bearded in axils. Spikelets solitary. Fertile spikelets sessile or pedicelled. Pedicels present, reduced to a stump, 0.2–0.5 mm long.

Fertile Spikelets. Spikelets comprising 10–27 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 7–12 mm long, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets falling as a whole.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.5–2.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1-veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 1.7–2.5 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1-veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 1.9–2.7 mm long, membranous, keeled, 3-veined, 0–3-veined. Lemma midvein scabrous. Lemma lateral veins prominent. Lemma apex caudate. Palea bowed outwards, 0.66 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2, 0.2 mm long, purple. Caryopsis with adherent pericarp, oblong, 0.5 mm long, red.

$2n = 20$ (1 ref TROPICOS).

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. Mexico. Central Mexico, Northeast Mexico, Gulf (Mexico), Northwest Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica, Northern South America, Western South America, Brazil.** Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama. French Guiana, Guyana, Surinam, Venezuela. Bolivia, Colombia, Peru. Brazil West Central, Brazil Northeast, Brazil North, Brazil Southeast.

TDWG4. Roraima, Para, Amapa, Amazonas, Acre, Rondonia, Mato Grosso, Goias, Bahia, Maranhao, Piaui, Ceara, Rio Grande do Norte, Paraiba, Penambuco, Alagoas, Sergipe, Sao Paulo Parana. Distrito Federal, Mexico State, Puebla. Durango. Veracruz. Sinaloa. Colima, Guerrero, Jalisco, Michoacan, Nayarit, Oaxaca. Chiapas, Tabasco, Yucatan.

Eragrostis megalosperma F. Muell. ex Benth. *Fl. Austral.* vii. 644. (1878).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *O'Shanesy s.n.*, Australia: Queensland: Rockhampton

ST: *Leichhardt s.n.*, Australia: Queensland: Owydir River.

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (254), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (374, Fig. 67 & 379, Fig 68), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (171, Fig. 26), E.Hafliger & E.Schultz, *Grass Weeds*, CIBA-GEIGY (2:69(1980)).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 173, Fig.3 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): Gk. megas, large; sperma, seed. Grains large.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 60–120 cm long. Lateral branches lacking or sparse. Leaf-sheath oral hairs scanty or lacking, 2–4 mm long. Ligule a fringe of hairs, 0.2 mm long. Leaf-blades filiform or linear, involute, 0.5–1 mm wide. Leaf-blade surface smooth, glabrous.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear, 3–30 cm long, 0.7–2 cm wide. Primary panicle branches appressed. Panicle axis smooth, glabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.25–3 mm long, smooth or scabrous.

Fertile Spikelets. Spikelets comprising 5–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 4–11 mm long, 1–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.7–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.25–2 mm long, 0.75–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma surface smooth or scaberulous. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with free soft pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland, New South Wales. North, Central, South East. Western Slopes, Western Plains.

Eragrostis membranacea Hack. ex Schinz. *Verh. Bot. Ver. Brand.* . 148. (1888).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Namibia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: T: *Schinz 614*, Olukonda ; Namibia (K iso).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. membrana, membrane; -acea, resembling. Inflorescence bracts or glumes papery.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Butt sheaths glabrous. Culms erect, 60–110 cm long. Culm-nodes black. Lateral branches lacking. Leaf-sheaths glandular. Ligule a fringe of hairs. Leaf-blades 20–40 cm long, 2–5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 15–20 cm long. Primary panicle branches 1–2 -nate. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 3–15 mm long, 1.9–4 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet, shiny. Lower glume ovate, 1.2 mm long, 0.75 length of upper glume, cartilaginous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5 mm long, 0.66 length of adjacent fertile lemma, cartilaginous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma orbicular or oblate, 2.5 mm long, cartilaginous, much thinner on margins, shiny, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex obtuse. Palea keels smooth or scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.8–1.2 mm long. Caryopsis with adherent pericarp, oblong, 1–1.3 mm long. Embryo 0.5 length of caryopsis.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa. Angola, Zambia, Zimbabwe. Namibia, Botswana.

Eragrostis mexicana (Hornem.) Link. *Hort. Berol.* i. 190. (1827).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000).

Basionym or Replaced Name: *Poa mexicana* Hornem., *Hort. Bot. Hafn.* 2: 953 (1815). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Sessi s.n.*, Cultivated from seed collected in Mexico (MA).

ST: *Sessi & M. Lacasta*, Brazil (US-2891498 (fragm)).

Recent Synonyms: *Eragrostis neomexicana* Vasey, Beal, *Grasses N. Amer.* 2: 485 (1894). *Eragrostis orcuttiana* Vasey, *Contr. U. S. Nat. Herb.* 1: 269. (1893).

Eragrostis virescens J. & C. Presl, *Rel. Haenk.* i. 276. (1830).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (376, Fig. 308), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler, *Grasses of New South Wales*, 4th edn (2008) (254), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (374 & 379, Fig. 67 & 68), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), M.E.Barkworth et al, *Flora of North*

America north of Mexico Vol 25 *Poaceae*, part 2 (2003) (80 as subsp. *mexicana* & *virescens*), A.Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (174, Fig. 60 as *E. neomexicana*), W.Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (219, Fig. 75), A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (333, Fig. 85 as *E. neomexicana*), M.N.Correa, *Flora Patagonica* Parte III, Gramineae (1978) (481, Fig. 322), B.Rosengurt, *Gramineas Uruguayas I* (1970) (264, Fig. 108 as *E. neomexicana*), E.Hafliger & E.Schultz, *Grass Weeds*, CIBA-GEIGY (2:70(1980)).

Illustrations (Journals): *Sida* (21: 1375, Fig.2E-G (2005) as subsp. *mexicana*), *Austr. Syst. Bot.* (10: 173, Fig.3 (1997)), *Ann. Missouri Bot. Gard.* (94: 770 fig 14 (2007) as subsp. *mexicana* & subsp. *virescens*), *Ruizia* (13:245, Fig 28p-r (1993)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. -ana, indicating origin. From Mexico.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms geniculately ascending, 15–120 cm long. Culm-internodes eglandular or glandular (below nodes). Leaf-sheaths eglandular or glandular, pilose. Ligule a fringe of hairs. Leaf-blades lanceolate, 5–10 cm long, 3–6 mm wide, eglandular or glandular (below). Leaf-blade surface glabrous or pilose, hairy abaxially, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, dense or loose, 10–18 cm long, 4–8 cm wide. Primary panicle branches ascending or spreading, 4–6 cm long. Panicle branches flexuous, eglandular or glandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 7–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 6–9 mm long, 1.8–2 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.6–1.8 mm long, 0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.8–2 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2–2.2 mm long, membranous, mid-green or red, mottled with last colour, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, 0.2–0.6 mm long.

$2n = 60$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe (*), Africa, Australasia (*), North America, South America.

Region. Northern Europe (*).

Country /Province /State. : Great Britain (*). **Southern Africa.** Limpopo, North-West, Gauteng, Mpumalanga, Free State, Kwazulu-Natal, Lesotho, Northern Cape, Western Cape, Eastern Cape. **Australia.** Western Australia (*), South Australia (*), Queensland (*), New South Wales (*), A.C.T. (*), Victoria (*). **Southwestern Pacific. Northwest USA, Southwestern USA, South-central USA, Mexico.** Colorado. Arizona, California, Utah. New Mexico. Central Mexico, Northeast Mexico, Gulf (Mexico), Pacific Is (Mexico), Northwest Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica, Northern South America, Western South America, Brazil, Southern South America.** Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama. Venezuela. Colombia, Ecuador, Galapagos, Peru. Brazil West Central, Brazil Northeast, Brazil North, Brazil Southeast, Brazil South. Argentina Northeast, Argentina South, Argentina Northwest, Chile North, Chile Central, Chile South, Uruguay.

TDWG4. South-West. Southern. South East. Coast, Tablelands, Western Plains. Jujuy, La Rioja, San Juan, San Luis. Buenos Aires, Cordoba, Entre Rios, La Pampa, Santa Fe. Río Negro. Tarapaca, Antofagasta, Atacama. Coquimbo, Valparaiso, O'Higgins, Maule, Biobio, La Araucania. Los Lagos. Distrito Federal, Mexico State, Morelos, Puebla, Tlaxcala. Aguascalientes, Coahuila, Chihuahua, Durango, Guanajuato, Hidalgo, Neuvo Leon, Queretaro, San Luis Potosi, Tamaulipas, Zacatecas. Veracruz. Baja California, Baja California Sur, Sinaloa, Sonora. Colima, Guerrero, Jalisco, Michoacan, Nayarit, Oaxaca. Campeche, Chiapas, Quintana Roo, Tabasco, Yucatan.

Eragrostis micrantha Hack. ex Schinz. *Bull. Herb. Boiss.* iii. 388. (1895).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Rehmann 3645*, South Africa: Republica Oranjensis: Draaifontein

ST: *Rehmann 3675*, South Africa: Republica Oranjensis: Draaifontein.

Illustrations (Books): No illustration found (BKS).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): Gk. mikros, small; anthos, flower. Spikelets small.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Butt sheaths glabrous. Culms erect, 30–100 cm long. Culm-internodes eglandular or glandular. Leaf-sheaths eglandular or glandular, keeled. Ligule a fringe of hairs. Leaf-blades 30–60 cm long, 1–3 mm wide. Leaf-blade apex filiform.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, effuse, 10–30 cm long, 4–14 cm wide. Primary panicle branches spreading, profusely divided. Panicle branches capillary, flexuous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2–4 fertile florets, with a barren rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 2–4 mm long, 1–1.2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets disarticulating separately.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.75 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume surface smooth or asperulous, rough above. Lower glume apex acute. Upper glume ovate, 1.2 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume surface smooth or asperulous, rough above. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels approximate, eciliate.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.6–1 mm long. Caryopsis with adherent pericarp, lanceolate, 1.2–1.5 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa. Angola. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Free State, Lesotho, Northern Cape.

Eragrostis microcarpa Vickery. *Contrib. N. S. Wales Nat. Herb.* i. 339 (1951).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>; *vide* TROPICOS and Kew Synonymy Database: New South Wales: Bourke, 22 Dec 1934, *J. Vickery 9208* (HT: NSW).

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler,, *Grasses of New South Wales*, 4th edn (2008) (254).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): Gk. mikros, small; karpos, fruit. Caryopsis very small.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths woolly. Culms erect, slender, 30–60 cm long, 3–4 -noded. Culm-nodes glabrous. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs. Leaf-blades involute, 1.5–2 cm long, 1–2 mm wide. Leaf-blade surface scabrous, rough adaxially, pilose. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, pyramidal, 15–20 cm long, 12–15 cm wide, contracted about primary branches. Primary panicle branches spreading, 1–4 -nate, bearing spikelets almost to the base. Panicle branches scabrous. Spikelets appressed, solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 10–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 3–4 mm long, 1.25 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets disarticulating separately.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume oblong, 1 mm long, 0.7–0.8 length of upper glume, hyaline, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex erose, acute. Upper glume oblong, 1.4 mm long, 1.1 length of adjacent fertile lemma, hyaline, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex erose, acute.

Florets. Fertile lemma oblong, 1.3 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct, close to margins. Lemma apex obtuse. Palea linear, 1–1.2 mm long. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.15 mm long. Caryopsis with adherent pericarp, orbicular, isodiametric, 0.4 mm long, dark brown.

Distribution (TDWG). Continent. Europe (*), Australasia.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Australia.** Queensland, New South Wales. Central, Inland. Western Plains.

Eragrostis microsperma Rendle. *Cat. Welw. Afr. Pl.* ii. 248. (1899).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Pungo Andongo: by sandy roadsides from Quicuxe towards Cacucaco, *Welwitsch* 7279.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk *mikros*, small; *sperma*, seed. Caryopses or spikelets small.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 30–45 cm long, 5-noded. Culm-internodes terete, brown (pale), distally glabrous. Leaves mostly basal. Leaf-sheaths loose, longer than adjacent culm internode, glandular (whitish), pilose, outer margin hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.4 mm long. Leaf-blades linear or lanceolate, 3–10 cm long, 3–6 mm wide, stiff. Leaf-blade surface scabrous, rough abaxially (especially) or on both sides, pilose, sparsely hairy. Leaf-blade margins eglandular. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, effuse, 15–18 cm long, 5 cm wide. Primary panicle branches spreading, 1-nate. Panicle branches flexuous, eglandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 4–8 mm long, glandular (annular).

Fertile Spikelets. Spikelets with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear to oblong, laterally compressed, obtuse, 4–6 mm long, 2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes obscured by lemmas.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume ovate or orbicular, 1 mm long, 0.9 length of upper glume, membranous, 1-keeled, 1-veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume orbicular, 1.75 mm long, membranous, 1-keeled, 1-veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic, broadly proportioned, 1.6 mm long, 1.2 mm wide, membranous, purple, shiny, keeled, 3-veined, 0–3-veined. Lemma lateral veins obscure, midway between midvein and margin. Lemma surface smooth. Lemma apex obtuse. Palea hyaline. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2, 1 mm long. Stigmas 2. Caryopsis with adherent pericarp, orbicular, isodiametric, biconvex, red. Hilum punctiform.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Angola.

Eragrostis mildbraedii Pilger. *Engl. Jahrb.* xliii. 95 (1909).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Deutsch-Ostafrika: Bukoba, dnenartige Strandformation an der Mündung des Kanoni in den See, Hauptbestandteil der Dnenformation, Jun 1907, *Mildbraed* 29.

Illustrations (Books): R.M.Pohill, F.T.E.A., *Gramineae* (2(1974):196, Fig.62).

Derivation (Clifford & Bostock 2007): in honor of Gottfried Wilhelm Johannes Mildbraed (1879–1954) German botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, mat forming. Rhizomes elongated. Butt sheaths glabrous. Culms 10–40 cm long. Leaves distichous. Ligule a fringe of hairs. Leaf-blades flat or convolute, 2–8 cm long, 1–3 mm wide, glaucous.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 2–8 cm long. Panicle branches stiff. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 3–10 mm long, 1–1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, tough throughout or fragile above, with the distal florets disarticulating separately.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.7–1.3 mm long, 1 length of upper glume, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.7–1.3 mm long, 0.5–0.8 length of adjacent fertile lemma, 1-keeled, 1-veined. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5–1.7 mm long, membranous, dark brown or purple, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.6–0.9 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.6 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, East tropical Africa, South tropical Africa, Southern Africa. Congo, Rwanda, DRC. Kenya, Tanzania, Uganda. Zambia. Botswana.

Eragrostis milnei Launert ex Cope. *Kew Bull.* 53:133 (1998).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Zambia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Zambia: Kalenda Dambo, 8 Oct 1937, *Milne-Redhead 2651* (HT: K; IT: PRE).

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):60, t. 26).

Illustrations (Journals): *Kew Bulletin* (53: 134, Fig.1 (1998)).

Derivation (Clifford & Bostock 2007): In honor of Edgar Wolston Bertram Handley Milne-Redhead (1906–1996) English botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Butt sheaths glabrous, persistent and investing base of culm, with compacted dead sheaths. Culms erect, robust, 70–130 cm long. Culm-internodes eglandular. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheaths eglandular, without keel, glabrous on surface. Ligule a fringe of hairs. Leaf-blades flat or involute, 5–15(–20) cm long, 0.8–2 mm wide, eglandular. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 8–20 cm long. Primary panicle branches branching divaricately. Panicle branches eglandular, bearded in axils, with prominent pulvini. Spikelets spreading, solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 6–22 mm long.

Fertile Spikelets. Spikelets comprising 5–18 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, compressed slightly, 6–13 mm long, 2.5–3 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes similar, shorter than spikelet. Lower glume ovate, 1.8–2.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.8–2.5 mm long, 0.5–0.6 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent. Fertile lemma ovate, 2.5–3.2 mm long, membranous, grey, keeled, lightly keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex obtuse or acute. Palea 2 -veined. Palea keels smooth. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1.2–1.6 mm long. Caryopsis with adherent pericarp, ellipsoid, dorsally compressed, concavo-convex, 1.1–1.8 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Angola, Zambia.

Eragrostis minor Host. *Fl. Austr.* i. 135. (1827).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), E.Edgar, & H.Connor, *Flora of New Zealand Gramineae* 5 (2000), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*), N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960) (as *E. pappiana* & *E. poaeoides*), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983), T.Koyama, *Grasses of Japan and its neighboring regions* (1987) (as *E. poaeoides*), W.D.Clayton & N.Snow, Key to Pacific Grasses (2010).

TYPE from Italy. **Basionym or Replaced Name:** *Poa eragrostis* L., *Sp. Pl.* 68 (1753). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Habitat in Italia supra muros, *D. Baeck s.n.* (LINN).

Recent Synonyms: *Eragrostis poaeoides* Beauv., orth var, *Ess. Agrost.* 162 (1812). *Eragrostis pappiana* (Chiov.) Chiov., *Ann. Bot. Roma*, 8: 371 (1908).

Illustrations (Books): J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (147, Fig. 48 as *E. poaeoides*), N.Feinbrun-Dothan, *Flora Palaestina* 4 (1986) (Pl. 378), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995), L.Boulos, *Flora of Egypt* 4 (2005) (260, Pl. 77), C-C Hsu, *Taiwan Grasses* (1975) (420 as *E. poaeoides*), K.M.Matthew, Further Illustrations on the *Flora of*

Tamilnadu Carnatic (1988) (Pl. 775), H.J.Noltie, *The Grasses of Bhutan* (2000) (661, Fig. 34), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (377, Fig 309), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (255), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (374 & 391, Fig. 67 & 70), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (86), A.Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (177, Fig 61), S-L Chen et al, *Flora of China*, Illustrations, *Poaceae* (2007) (Fig. 668), E.Hafliger & E.Schultz, *Grass Weeds*, CIBA-GEIGY (2:71(1980)).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 172, Fig.2 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): L. smaller, lesser. Plants small in comparison with related species.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Glands wart-like (on keel). Culms geniculately ascending, 6–60 cm long. Ligule a fringe of hairs. Leaf-blades 3–12 cm long, 1–5 mm wide. Leaf-blade margins glandular or eglandular.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, dense or loose, 4–20 cm long. Panicle branches stiff, eglandular or glandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong, 1–3 mm long, eglandular or glandular.

Fertile Spikelets. Spikelets comprising 6–16(–40) fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–9(–15) mm long, 1.3–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes definite.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.7 mm long, 1 length of upper glume, eglandular or glandular (on keel), 1-keeled, 1–3 -veined. Lower glume apex acute. Upper glume ovate, 1–1.7 mm long, 0.7–0.8 length of adjacent fertile lemma, eglandular or glandular, 1-keeled, 1–3 -veined. Upper glume apex acute.

Florets. Fertile lemma ovate or orbicular, 1.5–2 mm long, chartaceous, yellow or grey or purple, glandular on veins (keel), keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex obtuse. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.3 mm long. Caryopsis with adherent pericarp, oblong, 0.7–0.8 mm long, dark brown.

$N = 20$ (1 ref TROPICOS), or 30 (1 ref TROPICOS), or 40 (1 ref TROPICOS). $2n = 30$ (1 ref TROPICOS), or 40 (2 refs TROPICOS).

Distribution (TDWG). **Continent.** Europe, Africa, Temperate Asia, Tropical Asia, Australasia (*), Pacific, North America, South America.

Region. Northern Europe (*), Middle Europe, Southwestern Europe, Southeastern Europe, Eastern Europe.

Country /Province /State. : Great Britain (*). : Austria, Czechoslovakia, Germany, Hungary, Poland, Switzerland. : Corsica, France, Portugal, Sardinia, Spain, Azores. : Albania, Bulgaria, Greece, Italy, Romania, Sicily, Turkey Europe, Yugoslavia. Belarus, Estonia, Latvia, Lithuania, Baltic States, Krym, Central European Russia, East European Russia, South European Russia, Northwest European Russia, Ukraine. **Northern Africa, Macaronesia, West tropical Africa, Northeast tropical Africa, East tropical Africa, Southern Africa** (*), **Middle Atlantic ocean, Western Indian ocean.** Egypt. Canary Is, Cape Verde, Madeira. Mauritania, Senegal. Eritrea, Ethiopia (inc. Eritrea), Socotra, Somalia, Sudan. Kenya, Tanzania. Gauteng. St Helena. Mauritius (*), Madagascar (*). Siberia, Russian far east, **Middle Asia, Caucasus, Western Asia, Arabian Peninsula, China, Mongolia, Eastern Asia.** Altay, Buryatiya, Chita, Irkutsk, Tuva. Primorye. Kazakhstan, Turkmenistan, Tadjikistan, Uzbekistan. Iran, Iraq. Gulf States, Kuwait, Oman. China South Central, Inner Mongolia, Manchuria, China North-Central, Qinghai, China Southeast, Tibet, Xinjiang. Japan, Nansei-Shoto, Taiwan. Japan Honshu, or Shikoku, or Kyushu. **Indian Subcontinent, Indo-China, Malesia, Papuaia.** Assam, Bangladesh, Eastern Himalaya, Pakistan, Sri Lanka, West Himalaya. Myanmar, Thailand. Java, Lesser Sunda Is. New Guinea. **Australia, New Zealand.** Western Australia (*), Northern Territory (*), South Australia (*), Queensland (*), New South Wales (*), Victoria (*). **Northwestern Pacific.** Niue (*), New Caledonia (*). Marianas (*), Wake Is (*). **Western Canada, Eastern Canada, Northwest USA, North-central USA, Northeast USA, Southwestern USA, South-central USA, Southeastern USA, Mexico.** British Columbia, Saskatchewan. New Brunswick, Nova Scotia, Ontario, Quebec. Colorado, Idaho, Montana, Oregon, Washington, Wyoming. Iowa, Kansas, Missouri, Nebraska. Connecticut, Indiana, Maine, Massachusetts, Michigan, Ohio, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, West Virginia. California, Nevada, Utah. Texas. Alabama, Georgia, Louisiana, North Carolina, South Carolina. Northeast Mexico. **Caribbean, Northern South America, Western South America, Brazil, Southern South America.** Venezuela. Colombia. Brazil Southeast. Argentina Northeast, Uruguay.

TDWG4. Beijing, Shaanxi, Shandong. Anhui, Fujian, Henan, Zhejiang. Guizhou, Hubei, Yunnan. Bhutan. Kerala. Tamilnadu. Kimberley, South-West. Darwin & Gulf, Central Australia. Southern. North, Central, South East. Buenos Aires, Distrito Federal, Entre Rios. Tamaulipas.

Eragrostis moggii De Winter. *Bothalia*, ix. 137 (1966).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mozambique. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Mozambique, Inhaca Is.: Mogg 28616 (PRE holo, K, SRGH).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Albert Oliver Dean Mogg (1886–1980), South African botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Glands sunken crateriform, or annular. Culms erect or geniculately ascending or decumbent, 30–90 cm long, without nodal roots or rooting from lower nodes. Lateral branches sparse or ample. Leaf-sheaths glandular. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs. Leaf-blades flat or involute, 10–20 cm long, 1–3 mm wide. Leaf-blade surface ribbed, scaberulous, rough adaxially.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, lanceolate or ovate, 10–20 cm long. Primary panicle branches 1–2 -nate. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, glandular.

Fertile Spikelets. Spikelets comprising 4–13 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–7 mm long, 1–1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume oblong or ovate, 1.5–2 mm long, 0.75–1 length of upper glume, chartaceous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume elliptic or ovate, 1.5–2 mm long, 1 length of adjacent fertile lemma, chartaceous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile lemma elliptic or ovate, 1.5–2 mm long, 1 mm wide, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma surface asperulous. Lemma apex truncate or obtuse. Palea membranous. Palea keels scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.7 mm long. Caryopsis with adherent pericarp, square, laterally compressed. Embryo 0.5 length of caryopsis. Hilum punctiform.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa. Mozambique. Kwazulu-Natal.

Eragrostis mokensis Pilger. *Engl. Jahrb.* li. 419 (1914).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *J. Mildbraed 7102*, Nov 1911, Equatorial Guinea: Fernando Po: Grasland (Bergweiden) von Moka im Sdosten der Insel, 1200–1800 m (B; IT: US-2941533).

Derivation (Clifford & Bostock 2007): L. *-ensis*, denoting origin. From Moka, Fernando Po (now Bioko), Equatorial Guinea.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms decumbent or prostrate, 8–30 cm long. Ligule a fringe of hairs. Leaf-blades ascending, 1–8 cm long, 1–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, 5–12 cm long, 3–7 cm wide. Primary panicle branches spreading. Panicle branches stiff. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong, 1–2 mm long.

Fertile Spikelets. Spikelets comprising 3–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 3–5.5 mm long, 2–2.5 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral

veins absent. Lower glume apex acute. Upper glume ovate, 1 mm long, 0.6–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume apex acute.

Florets. Fertile lemma oblate, globose, 1.2–1.5 mm long, cartilaginous, dark green, shiny, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex obtuse. Palea orbicular. Palea keels winged, narrowly winged, scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2, 0.2 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.5 mm long.

Distribution (TDWG). Continent. Africa, South America.

Country /Province /State. West tropical Africa, West-central tropical Africa. Nigeria. Cameroon, Bioko. Northern South America, Brazil. Venezuela. Brazil Southeast.

Eragrostis mollior Pilger. *R. E. Fries, Wiss. Ergebn. Schwed. Rhod.-Kongo-Exped.* 1911–12, i. 213 (1916).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Zimbabwe. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Nordost-Rhodesia: Panta am bangweolo-See, Lichtungen, *Van Rosen* 830.

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):56, t. 23).

Derivation (Clifford & Bostock 2007): L. softer. Basal leaf-sheaths densely tomentose.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths woolly. Culms erect, 60–120 cm long. Ligule a fringe of hairs. Leaf-blades flat, 15–40 cm long, 3–5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, linear or lanceolate, dense or loose or effuse, 15–55 cm long. Primary panicle branches simple or moderately divided, without sterile bristles or sterile at the tips. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 4–5 mm long.

Fertile Spikelets. Spikelets comprising 3–7(–10) fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 2.5–4(–4.5) mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate or ovate, 0.6–1.3 mm long, 0.7–1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse or acute. Upper glume lanceolate or ovate, 0.8–2 mm long, 0.5–0.9 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse or acute.

Florets. Fertile lemma ovate, 1.7–2.2 mm long, membranous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma surface smooth or asperulous. Lemma margins ciliate or pubescent. Lemma apex obtuse or acute. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.6–0.8 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.7 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, East tropical Africa, South tropical Africa. Congo, Rwanda, DRC. Tanzania, Uganda. Malawi, Mozambique, Zambia, Zimbabwe.

Eragrostis montana Balansa. *Morot, Journ. de Bot.* iv. 168. (1890).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*).

TYPE from Cambodia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Cambodia: Pursat Mt., ca. 1200 m, 18 June 1875, *F.F. Godefroy* 487 (HT: L).

Illustrations (Books): H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005) (69, Fig. 64).

Derivation (Clifford & Bostock 2007): L. mons, mountain; -ana, indicating location. Growing on mountains.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Cataphylls evident. Culms decumbent, 30–60 cm long. Leaf-sheaths 2–4 cm long, glabrous on surface. Ligule a fringe of hairs. Leaf-blades involute, 5.5–8 cm long, 3 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 5–12 cm long, contracted about primary branches. Primary panicle branches 2–5 cm long. Panicle axis smooth. Panicle branches scabrous, glabrous in axils or bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 12–18 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets ovate, laterally compressed, 3–7 mm long, 1.8–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes 0.2–0.25 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.8 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume orbicular, 1.1 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute, mucronate.

Florets. Fertile lemma ovate, 1.2 mm long, membranous, grey, eglandular, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma surface scabrous, rough on veins. Lemma apex acute. Palea keels eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.25 mm long. Caryopsis with adherent pericarp, ovoid, 0.4 mm long.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. **China.** China South Central. **Indo-China, Malesia.** Andaman Is, Cambodia, Myanmar, Nicobar Is, Thailand, Vietnam. Borneo, Malaya, Singapore, Sumatra.

TDWG4. Yunnan.

Eragrostis monticola (Gaud.) Hillebr. *Fl. Haw. Isl.* 531 (1888).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Hawaii. **Basionym or Replaced Name:** *Poa monticola* Gaudich., *Voy. Uranie* 408 (1830)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Hawaii: Coll?.

Illustrations (Books): W.L.Wagner et al., *Manual of the Flowering Plants of Hawai'i*, Vol. 2 (1990) (1544, Pl. 228).

Derivation (Clifford & Bostock 2007): L. mons, mountain; -cola, dweller. Growing on mountains.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms erect, 10–30 cm long. Leaves mostly basal. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades involute, 5–15 cm long, 1–2 mm wide. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear, interrupted, 6–15 cm long, 0.5–1 cm wide. Primary panicle branches appressed, 1–2 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 5 mm long, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes obscured by lemmas, scaberulous.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2–3 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 2–3 mm long, 1–1.5 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 2 mm long, chartaceous, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Pacific.

Country /Province /State. **North-central Pacific.** Hawaii.

Eragrostis montufari (Kunth) Steud. *Syn. Pl. Gram.* 275. (1854).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ecuador. **Basionym or Replaced Name:** *Poa montufari* Kunth, *Nov. Gen. Sp. (quarto ed.)* 1: 159 (1815) [1816]

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Humboldt & Bonpland s.n.*, Apr-May, Ecuador: Pichincha: between Puenbo and San Antonio de Lulumbamba (P-Bonpl. (photo); IT: BAA-1056, P, US-2891497 (fragm. ex P-Bonpl.)).

Illustrations (Books): S.A.Renvoize, *Gramineas de Bolivia* (1998) (Fig. 68).

Derivation (Clifford & Bostock 2007): L. from Hacienda Montufar, near Chillo, Ecuador.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 35–80 cm long. Leaf-sheaths glabrous on surface or hirsute. Ligule a fringe of hairs. Leaf-blades flat or involute, 2–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 15–30 cm long, contracted about primary branches. Primary panicle branches spreading, distant. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4.5–5.5 mm long, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2–2.3 mm long, membranous, grey or black, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Southern South America. Bolivia. Argentina Northwest.

TDWG4. Jujuy.

Eragrostis mueruensis Pilger. *Notizbl. Bot. Gart. Berlin*, XIII. 408 (1936).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Tanzania. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Tanzania, Rondo Plateau: Schlieben 6289 (K iso).

Illustrations (Books): R.M.Pohill, F.T.E.A., *Gramineae* (2(1974):193, Fig.61), G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):58, t. 25).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From Muera Plateau, Tanzania.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 90–120 cm long. Ligule a fringe of hairs. Leaf-blades 30–60 cm long, 2–5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear, 14–18 cm long. Primary panicle branches ascending, 1–3 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–11 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 5–8 mm long, 3–5 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 3–4 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 3–4 mm long, 0.8–1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 3.5–4 mm long, cartilaginous, yellow, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Palea keels smooth. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.5–2 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa, South tropical Africa. Tanzania. Zambia.

Eragrostis multicaulis Steud. *Syn. Pl. Gram.* 426 (1854).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*), N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960), T.Koyama, *Grasses of Japan and its neighboring regions* (1987).

TYPE from Japan. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *Brger s.n.*, Japan (L-908.97–2116). LT designated by Veldkamp, *Blumea* 47(1): 181 (2002).

Illustrations (Books): T.Koyama, *Grasses of Japan and its neighbouring regions* (1987) (252, Fig. 93), C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (408), C-C Hsu, *Taiwan Grasses* (1975), A.Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (181, Fig. 63), A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (336, Fig. 86), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 676).

Derivation (Clifford & Bostock 2007): L. multus, many; caulis, stem. Culms much branched.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose, clumped loosely. Culms geniculately ascending, slender, 5–30 cm long, 1–3 -noded. Culm-nodes glabrous. Leaf-sheaths 1–1.5 cm long, glabrous on surface. Ligule a fringe of hairs. Leaf-blades 4–8 cm long, 1–3 mm wide. Leaf-blade surface glabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, 2–10 cm long, 2–6 cm wide. Primary panicle branches spreading. Panicle axis glabrous. Panicle branches stiff, eglandular, glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, linear, 1–4 mm long, eglandular.

Fertile Spikelets. Spikelets comprising 4–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 3–5 mm long, 1–2 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, dissimilar, shorter than spikelet. Lower glume lanceolate, 0.5 mm long, 0.5 length of upper glume, hyaline, without keels, 0 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1 mm long, 0.5–0.7 length of adjacent fertile lemma, hyaline, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent. Fertile lemma ovate, 1.4–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute or acuminate. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.2 mm long. Caryopsis with adherent pericarp, oblong, laterally compressed, 0.7 mm long.

Distribution (TDWG). Continent. Africa, Temperate Asia, Tropical Asia, North America, South America.

Country /Province /State. Northern Africa, Macaronesia, Western Indian ocean. Mauritius (*), Madagascar. **China, Eastern Asia.** China South Central. Japan, Kazan-retto, Nansei-Shoto. Japan Hokkaido, or Honshu, or Shikoku, or Kyushu. **Indian Subcontinent, Indo-China, Malesia.** Eastern Himalaya, India. Thailand. Borneo, Java, Lesser Sunda Is, Malaya. **Eastern Canada, Northwest USA, North-central USA, Northeast USA, Southeastern USA.** Nova Scotia, Ontario, Quebec. Oregon. Wisconsin. Connecticut, Maine, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Vermont. Maryland, Virginia. **Southern South America.** Argentina Northeast.

TDWG4. Yunnan. Sikkim. Maharashtra, Rajasthan, Tamilnadu, Uttah Pradesh. Buenos Aires, Entre Rios.

Eragrostis neesii Trin. *Mem. Acad. Petersb. Ser. VI. i. 405.* (1831).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *F. Sellow s.n.*, Brazil: Brasilia meridionalis (LE-TRIN-2369.02; IT: US-2767412 (fragm.)).

Illustrations (Books): A.Burkat, *Flora Ilustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (185, Fig 64), B.Rosengurt, *Gramineas Uruguayas I* (1970) (260, Fig. 107).

Derivation (Clifford & Bostock 2007): in honor of Christian Gottfried Daniel Nees von Esenbeck (1766–1858) German botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, short-lived, caespitose, clumped densely. Basal innovations intravaginal. Glands annular. Culms 7–30 cm long, 3–4 -noded. Leaf-sheaths glabrous on surface or pilose, outer margin hairy. Ligule a fringe of hairs, 0.5–1.5 mm long. Leaf-blades flat or involute, 3–12 cm long, 2–4 mm wide. Leaf-blade surface pilose. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, dense or loose, 3–11 cm long, 1.5–4.5 cm wide. Panicle branches glabrous in axils or bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, eglandular or glandular, scabrous.

Fertile Spikelets. Spikelets comprising 4–16 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 2–8 mm long, 1–2 mm wide, breaking up at maturity, disarticulating above glumes but not between florets.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.7–1 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1–1.5 mm long, 0.75–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.3–1.5 mm long, membranous, purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2, 0.3–0.4 mm long, purple. Caryopsis with adherent pericarp, ovoid or orbicular, 0.5–0.6 mm long. Embryo 0.33 length of caryopsis.

Distribution (TDWG). Continent. Europe (*), South America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Western South America, Brazil, Southern South America.** Bolivia. Brazil West Central, Brazil Northeast, Brazil Southeast, Brazil South. Argentina Northeast, Argentina Northwest, Paraguay, Uruguay.

TDWG4. Minas Gerais, Rio de Janeiro, Espirito Santo, Sao Paulo Parana, Catarina, Rio Grande do Sul. Jujuy, Salta. Buenos Aires, Chaco, Cordoba, Corrientes, Distrito Federal, Entre Rios, Formosa, Misiones, Santa Fe.

Eragrostis nevinii Hance. *Journ. Bot.* 18: 302 (1880).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), T.Koyama, *Grasses of Japan and its neighboring regions* (1987).

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China, Tsingyan: Nevin.

Illustrations (Books): C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (410), C-C Hsu, *Taiwan Grasses* (1975).

Derivation (Clifford & Bostock 2007): in honor of James Cook Nevin (1835–1912/13) cleric and amateur botanist who collected in China and California.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 20–50 cm long, 5–6 -noded. Leaf-sheaths hirsute. Ligule a fringe of hairs. Leaf-blades involute, 4–11 cm long, 3–4 mm wide. Leaf-blade surface pubescent, hairy on both sides.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear or oblong, 10–15 cm long, 1–2 cm wide. Primary panicle branches appressed, 1.5–2.5 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–8 mm long, 2–3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 1.5 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 2 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels winged, narrowly winged, ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.5 mm long. Caryopsis with adherent pericarp, oblong, 1 mm long.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. **China, Eastern Asia.** Hainan, China Southeast. Taiwan.

TDWG4. Fujian, Shanghai.

Eragrostis nigra Nees ex Steud. *Syn. Pl. Gram.* 267. (1854).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from India. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *Wight herb. 1782*, India (LE-TRIN-2370.2; ILT: CGE, K, NY, U). LT designated by Veldkamp, *Blumea* 47(1): 181 (2002).

Recent Synonyms: *Eragrostis deqenensis* B.S. Sun & S. Wang, *Acta Bot. Yunnanica*, 11(3): 306 (1989).

Illustrations (Books): K.M.Mathew, *Further Illustrations on the Flora of Tamilnadu Carnatic* (1988) (Pl. 776), H.J.Noltie, *The Grasses of Bhutan* (2000) (661, Fig. 34), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 671).

Derivation (Clifford & Bostock 2007): L. black. Culms or spikelets dark-colored culms.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 45–90 cm long, 2–3 -noded. Culm-nodes glabrous. Leaf-sheaths keeled, smooth or scaberulous, outer margin glabrous or hairy. Leaf-sheath oral hairs bearded, 2–4 mm long. Ligule a fringe of hairs, 0.5 mm long. Leaf-blades 10–26 cm long, 3–6.5 mm wide. Leaf-blade surface scaberulous, rough on both sides, glabrous or pilose or hirsute, hairy on both sides, with simple hairs or tubercle-based hairs. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 12–24 cm long, 8–16 cm wide. Primary panicle branches 1–2 -nate, 5–11 cm long. Panicle branches capillary, eglandular, smooth or scaberulous, glabrous in axils or bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 2–15 mm long.

Fertile Spikelets. Spikelets comprising 3–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3.5–6.25 mm long, 1.5–2.25 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes 0.5–0.75 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.5–2.5 mm long, 1 length of upper glume, much thinner on margins, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 1.5–2.5 mm long, 0.75–1.2 length of adjacent fertile lemma, with hyaline margins, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute or acuminate.

Florets. Fertile lemma lanceolate or ovate, 2 mm long, chartaceous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, oblong, quadrangular, 0.5–0.75 mm long, dark brown, striate, truncate. Embryo 0.5 length of caryopsis.

N = 30 (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. Caucasus, Western Asia, China. Iran. China South Central, China North-Central, Qinghai, China Southeast, Tibet. **Indian Subcontinent, Indo-China, Malesia.** Assam, Eastern Himalaya, India, Nepal, Sri Lanka. Myanmar, Thailand, Vietnam. Java, Lesser Sunda Is, Sumatra.

TDWG4. Gansu, Shaanxi. Guangxi, Henan, Jiangxi. Guizhou, Sichuan, Yunnan. Darjeeling, Bhutan, Sikkim. Manipur, Meghalaya. Andhra Pradesh, Karnataka, Kerala. Rajasthan, Tamilnadu, Uttah Pradesh, West Bengal. Himachal Pradesh, Jammu Kashmir.

Eragrostis nigricans (Kunth) Steud. *Nom. ed.* II. i. 563 (1840).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ecuador. **Basionym or Replaced Name:** *Poa nigricans* Kunth, *Nov. Gen. Sp. (quarto ed.)* 1: 159 (1815) [1816]

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *F.W.H. Humboldt & A.J.A. Bonpland 2291*, Apr-May, Ecuador: Chillo and Sangolqui (P-Bonpl; IT: BAA-1062 (fragm.), LE-TRIN-2371.01, P, US-2891495 (fragm. ex LE-TRIN, fragm. ex P)).

Illustrations (Books): S.A.Renvoize, *Gramineae de Bolivia* (1998) (311, Fig 65).

Illustrations (Journals): *Ann. Missouri Bot. Gard.* (94: 761 fig 10 (2007)).

Derivation (Clifford & Bostock 2007): *L. nigrico*, become blackish. Becoming black with maturity, usually of spikelets.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms decumbent, 15–40 cm long. Ligule a fringe of hairs. Leaf-blades 5–13 cm long, 2–3 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate, 5–16 cm long. Primary panicle branches ascending. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 3–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–3.8 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.2 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.3–1.5 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.9–2 mm long, membranous, purple or black, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Southern South America. Bolivia, Colombia, Ecuador, Peru. Argentina Northwest, Chile North.

TDWG4. Catamarca, Jujuy, La Rioja, Salta, San Juan, Tucuman. Tarapaca, Antofagasta.

Eragrostis nindensis Ficalho & Hiern. *Trans. Linn. Soc. Ser. II. ii.* (1881).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Angola. **Basionym or Replaced Name:** *Eragrostis denudata* Hack. ex Schinz, *Bull. Herb. Boiss.* 3: 392. [Aug.] (1895). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Upper course of river Ninda, *Serpa Pinto 51*; Angola, *Serpa Pinto 51* (LISU holo).

Illustrations (Books): R.M.Pohill, F.T.E.A., *Gramineae* (2(1974):190, Fig.60), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (140, Fig 108–16; 167, Fig 137 both as *E. denudata*), M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (155, Fig 89).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): *L. -ensis*, denoting origin. From Ninda River, Angola.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Culms erect, 20–80 cm long. Ligule a fringe of hairs. Leaf-blades filiform or linear, involute, 5–30 cm long, 2–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, linear or lanceolate or ovate, continuous or interrupted, 5–20 cm long, contracted about primary branches. Primary panicle branches spreading, simple or indistinct the panicle almost racemose, 0.5–4 cm long, bearing spikelets almost to the base. Panicle branches stiff. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 8–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 4–20 mm long, 2.5–4 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes definite.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume ovate, 1.2–2 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.2–2 mm long, 0.5–0.8 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2–3 mm long, coriaceous, yellow, keeled, 3 -veined, 0–3 -veined. Lemma apex acute or acuminate. Palea oblong. Palea keels winged, scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1–1.5 mm long. Caryopsis with adherent pericarp, ellipsoid, 1–1.5 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, East tropical Africa, South tropical Africa, Southern Africa. DRC. Tanzania. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Free State, Kwazulu-Natal, Northern Cape.

Eragrostis nutans (Retz.) Nees ex Steud. *Nom. ed. II. i.* 563 (1840).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), T.Koyama, *Grasses of Japan and its neighboring regions* (1987).

TYPE from India. **Basionym or Replaced Name:** *Poa nutans* Retz., *Observ. Bot.* 4: 19 (1786)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: India: Tranquebaria, *Koenig s.n.* (T: BM).

Recent Synonyms: *Eragrostis guangxiensis* S.C. Sun & H.Q. Wang, *Nom. ed. II.1:* 563 (1840).

Illustrations (Books): C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (411), C-C Hsu, *Taiwan Grasses* (1975), K.M.Matthew, *Further Illustrations on the Flora of Tamilnadu Carnatic* (1988) (pl.777), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 666).

Derivation (Clifford & Bostock 2007): *L. nuto*, nod. Inflorescence branches slender, bending under the weight of the spikelets.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths green or purple. Culms erect or geniculately ascending, 50–80 cm long. Culm-nodes glabrous. Lateral branches lacking or sparse. Leaf-sheath

oral hairs bearded, 3–4 mm long. Ligule a fringe of hairs, 0.3 mm long. Leaf-blades 9–18 cm long, 2–5 mm wide. Leaf-blade surface smooth or scaberulous, rough adaxially. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Peduncle smooth. Panicle spiciform, lanceolate, 10–22 cm long, 1–2 cm wide. Primary panicle branches 3–6.5 cm long. Panicle branches scabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1.5–3 mm long, scabrous.

Fertile Spikelets. Spikelets comprising 9–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 5–12 mm long, 1–1.5 mm wide, breaking up at maturity, rachilla persistent, retaining paleas. Rhachilla internodes 0.3 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.3 mm long, 0.9 length of upper glume, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.2–1.5 mm long, 1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.3–1.5 mm long, chartaceous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins prominent. Lemma apex acute. Palea 1 mm long. Palea keels scaberulous, ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, orbicular, isodiametric, 0.5 mm long, dark brown. Embryo 0.5 length of caryopsis.

N = 20 (2 refs TROPICOS).

Distribution (TDWG). Continent. Africa, Temperate Asia, Tropical Asia, North America.

Country /Province /State. **Western Indian ocean.** Mauritius. **China, Eastern Asia.** China South Central, China Southeast. Japan, Taiwan. Japan Honshu. **Indian Subcontinent, Indo-China, Malesia, Papuasias.** Assam, Bangladesh, India, Sri Lanka. Myanmar, Thailand. Java, Lesser Sunda Is, Malaya, Singapore, Philippines. New Guinea. **Southeastern USA.** Florida.

TDWG4. Guangxi. Yunnan. Andhra Pradesh, Bihar, Karnataka. Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamilnadu, Uttah Pradesh, West Bengal.

Eragrostis obtusa Munro ex Ficalho & Hiern. *Trans. Linn. Soc. Ser. II. ii. 32.* (1881).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: South Africa: Serpa Pinto 47.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (140&173, Fig 108&144).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): *L. blunt*. Glumes or lemmas apically rounded.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous to pubescent. Culms 20–40 cm long. Ligule a fringe of hairs. Leaf-blades convolute, 7–15 cm long, 2–4.5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 2–12 cm long, 1.5–8 cm wide. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 8–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 3–5 mm long, 3–4 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 2 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume ovate, 2 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined. Upper glume apex obtuse.

Florets. Fertile lemma orbicular, 2 mm long, chartaceous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex obtuse. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.8–1.3 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.5 mm long. Embryo 0.5 length of caryopsis.

Distribution (TDWG). Continent. Europe (*), Africa.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Southern Africa.** Limpopo, North-West, Gauteng, Free State, Lesotho, Northern Cape, Western Cape, Eastern Cape.

Eragrostis obtusiflora (Fourn.) Scribn. *U.S. Dept. Agric. Bull. Agrost.* viii. 10 (1897).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mexico. **Basionym or Replaced Name:** *Brizopyrum obtusiflorum* E. Fourn., *Mexic. Pl.* 2: 120 (1886)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Mexico: Veracruz: Orizaba: in ora occidentali, s.n. (HT: P).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (90).

Illustrations (Journals): *Sida* (21: 1400, Fig.11A-C (2005)).

Derivation (Clifford & Bostock 2007): *L. obtusus*, blunt; flos, flower. Glume or lemma apices rounded.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Rhizomes elongated, scaly. Culms erect or geniculately ascending, 30–60 cm long, wiry. Leaf-sheath oral hairs pubescent or ciliate. Ligule a fringe of hairs. Leaf-blades involute, 5–15 cm long, 1–1.5 mm wide, stiff, glaucous. Leaf-blade apex pungent.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 8–15 cm long. Primary panicle branches ascending, simple. Panicle branches stiff. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1 mm long.

Fertile Spikelets. Spikelets comprising 5–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 7–15 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 3 mm long, 0.6 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 5 mm long, 1.2 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 3.5–4 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex erose, obtuse. Palea 1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. North America.

Country /Province /State. Southwestern USA, South-central USA, Mexico. Arizona. New Mexico. Central Mexico, Northeast Mexico, Northwest Mexico, Southwest Mexico.

TDWG4. Distrito Federal, Mexico State. Coahuila, Chihuahua, Guanajuato, Neuvo Leon, Zacatecas. Sonora. Jalisco, Michoacan, Oaxaca.

Eragrostis olida M. Lazarides. *Austral. Syst. Bot.*, 10(1): 137 (1997).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia, Queensland. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Queensland, Mt. Isa: *Schmid 88* (CANB holo, BRI).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (369,374 & 379, Fig 66, 67 & 68), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 173, Fig.3 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. olea*, oil; *-ida*, tending to. Leaf-blades viscid.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Rootstock evident. Cataphylls evident. Butt sheaths hirsute. Culms 17–50 cm long, wiry, 6–10(–20) -noded. Culm-internodes glandular, antrorsely scabrous, distally hirsute or hispid, with simple hairs or tubercle-based hairs. Culm-nodes glandular or bearded. Lateral branches ample. Leaf-sheaths tight, wider than blade at the collar, glandular, hirsute or hispid, outer margin hairy. Leaf-sheath oral hairs scanty or ciliate. Ligule a fringe of hairs, 0.5–1 mm long. Collar glabrous or pubescent. Leaf-blades involute, 1–2(–8) cm long, 1–2 mm wide, coriaceous, stiff, viscid, aromatic. Leaf-blade surface hirsute or hispid. Leaf-blade margins glandular, tuberculate. Leaf-blade apex pungent.

Inflorescence. Inflorescence a panicle. Peduncle eglandular. Panicle open, ovate, 8–15 cm long, 4–8 cm wide. Primary panicle branches simple or sparsely divided, 2–3(–5) cm long, bearing spikelets almost to the base. Panicle axis glandular, scabrous, pilose or hirsute, with capitate hairs. Panicle branches glandular, resinous, scabrous, pilose or hirsute, with capitate hairs, pubescent in axils, with prominent pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, eglandular.

Fertile Spikelets. Spikelets comprising 9–66 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 4–30 mm long, 2–3.3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes thickened, zig-zag, 0.3–0.5 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.8–1.8 mm long, 1 length of upper glume, membranous or cartilaginous, much thinner on margins, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume surface smooth or asperulous, rough at apex. Lower glume apex obtuse, muticous or mucronate. Upper glume ovate, 0.8–1.8 mm long, 0.5–0.9 length of adjacent fertile lemma, membranous or cartilaginous, with hyaline margins, 1-keeled, 1 -veined. Upper glume primary vein thickened. Upper glume lateral veins absent. Upper glume surface smooth or asperulous, rough at apex. Upper glume apex obtuse.

Florets. Fertile lemma ovate, 1.8–2 mm long, membranous or cartilaginous, much thinner on margins, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins thickened, midway between midvein and margin. Lemma surface scabrous, rough above. Lemma apex emarginate or truncate or obtuse, muticous or mucronate. Palea orbicular or obovate, bowed outwards, hyaline, 2 -veined. Palea keels extending to apex, thickened. Palea surface scabrous or tuberculate. Palea apex scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.6–1 mm long. Caryopsis with adherent pericarp, ellipsoid or ovoid, dorsally compressed, stipitate, 0.6–0.8 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland. Kimberley. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. North, Central.

Eragrostis oligostachya Cope. *Kew Bull.* 53:151 (1998).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Zambia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Zambia: Nwinilunga Distr.: Kalenda Plain, Matonchi, 1400 m, 16 Apr 1960, *Robinson 3601* (HT: SRGH; IT: K).

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):57–101, t. 24–34, 1 plate, 1 spikelet drawing).

Illustrations (Journals): *Kew Bulletin* (148, fig.4. (1998)).

Derivation (Clifford & Bostock 2007): Gk. oligos, few; stachys, ear of corn. Inflorescence with few branches.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose, clumped loosely. Butt sheaths glabrous. Culms erect, 15–30 cm long. Culm-internodes eglandular. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheaths eglandular, without keel, glabrous on surface. Ligule a fringe of hairs. Leaf-blades filiform, involute, 1.5–12 cm long, 1 mm wide, eglandular. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle, comprising (2–)3(–4) fertile spikelets. Panicle open, oblong, 2–3 cm long, bearing few spikelets. Primary panicle branches indistinct the panicle almost racemose. Panicle branches eglandular, glabrous in axils, with insignificant pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 5–15 mm long.

Fertile Spikelets. Spikelets comprising 20–58 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, subterete, 6–17 mm long, 4–5 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes obscured by lemmas.

Glumes. Glumes similar, shorter than spikelet. Lower glume ovate, 2–2.2 mm long, 1 length of upper glume, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse or acute. Upper glume ovate, 2–2.2 mm long, 0.75 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse or acute.

Florets. Fertile florets divergent. Fertile lemma ovate or orbicular, 2.4–2.7 mm long, membranous, yellow or purple, suffused with last colour, without keel, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex obtuse. Palea 2 -veined. Palea keels ciliolate, with hairs 0.2–0.3 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.8 mm long. Caryopsis with adherent pericarp, orbicular, dorsally compressed, 1–1.1 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Zambia.

Eragrostis olivacea K. Schum. *Pflanzenw. Ost-Afr.* C 114. (1895).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Tanzania. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Holst 269*, Tanzania: Usambara (B).

Illustrations (Books): R.M.Pohill, F.T.E.A., *Gramineae* (2(1974):190, Fig.60).

Derivation (Clifford & Bostock 2007): *L. oliva*, olive; -acea, indicating resemblance. Spikelets or foliage olive-green.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Butt sheaths glabrous. Culms erect, 25–90(–150) cm long, 1–2(–5) mm diam. Ligule a fringe of hairs. Leaf-blades involute or flat (rarely), 6–30(–55) cm long, 1–2(–8) mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, linear or lanceolate or ovate, dense or loose or effuse, 5–25(–50) cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising (3–)5–7(–20) fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 2.5–4.5(–8) mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate or ovate, 1.3–2.5 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute or acuminate. Upper glume lanceolate or ovate, 1.3–2.5 mm long, 0.7–1.2 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute or acuminate.

Florets. Fertile lemma oblong or ovate, 1.7–2.2 mm long, membranous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma surface smooth or scaberulous, glabrous or hispidulous. Lemma margins pubescent or pilose. Lemma apex acute. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.5–1 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.6–0.7 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa. Burundi, Congo, Rwanda, DRC. Ethiopia (inc. Eritrea). Kenya, Tanzania, Uganda. Malawi, Mozambique, Zambia.

Eragrostis omahekensis De Winter. *Bothalia*, vii. 473 (1961).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Namibia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *De Winter 2498*, Namibia: 12.7 mi W of Gobabis.

Illustrations (Books): M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984).

Derivation (Clifford & Bostock 2007): *L. -ensis*, denoting origin. From Omaheke. The sandy tree savannah of north-west South Africa known to the Herero people by that name.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Glands sunken crateriform. Culms erect, 60–80 cm long, 2–4 -noded. Lateral branches lacking or sparse. Leaf-sheaths glandular, keeled, ribbed, pilose, with tubercle-based hairs. Ligule a fringe of hairs. Leaf-blades 7–15 cm long, 0.5 mm wide, flaccid. Leaf-blade surface scaberulous, rough adaxially, glabrous or pilose, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, dense, 6–20 cm long, 2–5 cm wide, contracted about primary branches. Primary panicle branches appressed or ascending, bearing spikelets almost to the base. Panicle branches glandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–7 mm long, 0.8–1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 1.5–2 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5–2 mm long, 0.8–0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.8–2.2 mm long, chartaceous, grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute. Palea keels scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.5 mm long. Caryopsis with adherent pericarp, oblong. Embryo 0.4 length of caryopsis. Hilum punctiform.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Namibia.

Eragrostis oreophila L. H. Harvey. *Bull. Torr. Bot. Cl.* 1 i. 407 (1954).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Mexico. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: V.H. Chase 7223 1/2, 29 Jun 1939, Mexico: Hidalgo: Mun. Jacala: mountain ravine, alt. 4500 ft (US-1763115; IT: GH, MO-1179378, TEX).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk *oros*, mountain; *phileo*, love. Mountain species.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rootstock evident. Culms erect or geniculately ascending, 30–75 cm long. Culm-internodes distally glabrous. Leaf-sheaths mostly shorter than adjacent culm internode, without keel, glabrous on surface, outer margin hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.4 mm long. Leaf-blades ascending, convolute, 4–10 cm long, 1–2 mm wide. Leaf-blade surface glabrous. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, pyramidal, 10–30 cm long, 10–14 cm wide. Primary panicle branches ascending or spreading, distant, 1–2 -nate, simple, 5–15 cm long. Panicle axis scabrous (above). Panicle branches flexuous, scabrous, glabrous in axils or pubescent in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 5–7 mm long, scabrous.

Fertile Spikelets. Spikelets comprising 7–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 4–6 mm long, 2–2.2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.6–1.8 mm long, 0.9–1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 1.6–2 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 2–2.2 mm long, 1.2 mm wide, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea 0.8–1 length of lemma. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, oblong, 0.8 mm long, dark brown, reticulate.

Distribution (TDWG). Continent. North America.

Country /Province /State. Mexico. Northeast Mexico, Northwest Mexico.

Eragrostis orthoclada Hack. *Bull. Herb. Boiss. Ser. II.* iv. 281. (1904).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Paraguay. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: LT: Hassler 8347, Jan, Paraguay: in arenosis salsis in regione cursus superiores fluminis Apa (NY; ILT: BAA-1063 (fragm.), MO-1573925 P, US). LT designated by Boechat & Longhi-Wagner, *Iheringia, Bot.* 55: 67 (2001).

ST: Hassler 8460, Jan, Paraguay: in arenosis salsis in regione cursus superioris fluminis, Apa (BAA-1066 (fragm.), K, P).

Illustrations (Books): S.A.Renvoize, *Gramineas de Bolivia* (1998) (318, Fig 67), A.Burkat, *Flora Ilustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (196, Fig 70).

Derivation (Clifford & Bostock 2007): Gk. *orthos*, straight; *klados*, branch. Inflorescence branches erect and adpressed to central axis.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Glands annular. Culms erect or geniculately ascending, slender, 20–80 cm long, 0.4–1 mm diam. Culm-nodes glabrous. Leaf-sheaths glabrous on surface or pubescent. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.3 mm long. Leaf-blades 3–15 cm long, 1.5–3 mm wide. Leaf-blade surface glabrous or pilose, sparsely hairy.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, effuse, 6–23 cm long, 3–10 cm wide. Primary panicle branches whorled at lower nodes. Panicle branches glandular (in axils), bearded in axils. Spikelets solitary. Fertile spikelets sessile or pedicelled. Pedicels present, scabrous.

Fertile Spikelets. Spikelets comprising 5–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 5.5–6.5 mm long, 1–1.2 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.2–2 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.2–2 mm long, 0.75–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma lanceolate, 1.7–2 mm long, membranous, yellow or purple, keeled, 3 -veined, 0–3 -veined. Lemma midvein scabrous. Lemma lateral veins prominent. Lemma apex acute. Palea 1.4 mm long. Palea keels ciliate, with hairs 0.1–0.2 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.3 mm long. Caryopsis with adherent pericarp, oblong or ovoid, 0.6–0.8 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Brazil, Southern South America. Bolivia. Brazil West Central. Argentina Northwest, Paraguay.

TDWG4. Catamarca, Jujuy, La Rioja, Salta, Santiago del Estero, San Luis, Tucuman. Chaco, Cordoba, Corrientes, Entre Rios, Formosa, Santa Fe.

Eragrostis pallens Hack. ex Schinz. *Bull. Herb. Boiss.* iii.392. (1895).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: South Africa: Transvaal: Boshveld inter Elandsriver et Klippan, *Rehmann s.n.*

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):57, t. 24), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (168, Fig 139), M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (156, Fig 90).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. pale. Inflorescences pale.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Butt sheaths pubescent. Culms erect, robust, 30–200 cm long, 2–4 mm diam. Culm-internodes glaucous. Leaves mostly basal. Ligule a fringe of hairs. Leaf-blades convolute, 50–100 cm long, 4–8 mm wide. Leaf-blade apex filiform.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or oblong, 8–20 cm long, evenly furnished or contracted about primary branches. Primary panicle branches ascending, bearing spikelets almost to the base. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 5–15 mm long, 1.5–2 mm wide, breaking up at maturity, disarticulating between fertile florets but the distal falling as a whole.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.7 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1 mm long, 0.5–0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.4–2 mm long, cartilaginous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex obtuse. Palea 1.1 length of lemma. Palea keels winged, narrowly winged, scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1.2 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa. Angola, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Free State, Kwazulu-Natal, Northern Cape, Eastern Cape.

Eragrostis palmeri S. Wats. *Proc. Am. Acad.* xviii: 182. (1883).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mexico. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *E. Palmer* 1368, Sept 1880-Oct 1880, Mexico: Coahuila (GH; IT: US-1761635, US-821984).

Illustrations (Books): N.Feinbrun-Dothan, *Flora Palaestina* 4 (1986) (Pl. 375), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (94).

Illustrations (Journals): *Sida* (21: 1386, Fig.7D-G (2005)).

Derivation (Clifford & Bostock 2007): in honor of Edward Palmer (1831–1911) United States botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rootstock evident. Culms 70–80 cm long. Lateral branches lacking. Leaf-sheath oral hairs lacking or ciliate. Ligule a fringe of hairs. Leaf-blades involute, 20–35 cm long, 1–2 mm wide. Leaf-blade surface glabrous. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, 15–30 cm long. Panicle branches glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate or ovate, laterally compressed, 4–6 mm long, 1–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above. Rhachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.2–1.8 mm long, 0.66–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute or acuminate. Upper glume ovate, 1.8–2.2 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute or acuminate.

Florets. Fertile lemma ovate, 2–2.4 mm long, membranous, much thinner above, grey, keeled, lightly keeled, keeled above, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Palea keels smooth, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, obovoid, 0.6–0.8 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. Southwestern USA, South-central USA, Mexico. Arizona. New Mexico, Texas. Northeast Mexico, Northwest Mexico, Southwest Mexico.

Coahuila, Chihuahua, Durango, Neuvo Leon, Tamaulipas, Zacatecas. Baja California, Sonora. Oaxaca.

Eragrostis palustris A.P.M. van der Zon. *Wageningen Agric. Univ. Pap.*, 92(1:2): 557, 128 (1992).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Cameroon. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *A.P.M. van der Zon* 3494, 11 Nov 1986, Cameroon, North: Garoua: Laende Massa, 9.05 N Lat, 13.27 E Long, 350 m (WAG).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. swampy place. Growing in swampy places.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Butt sheaths green or purple. Culms erect, 90–110 cm long. Culm-internodes glaucous. Ligule a fringe of hairs, 0.2 mm long. Leaf-blades convolute, 15–30 cm long, 2–3 mm wide, stiff.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, effuse, 8–25 cm long. Primary panicle branches ascending, 10 cm long. Panicle branches capillary, flexuous, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 10–18 mm long.

Fertile Spikelets. Spikelets comprising 3 basal sterile florets, 5–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or ovate, laterally compressed, 2–2.5 mm long, 0.8–1 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.8 mm long, 0.75 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1 mm long, 0.5 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Basal sterile florets 2 or more, similar, barren, without significant palea, separately deciduous. Lemma of lower sterile floret similar to upper glume. Fertile florets divergent. Fertile lemma ovate, 1.8–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea 0.5 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp.
Distribution (TDWG). Continent. Africa.
Country /Province /State. West-central tropical Africa. Cameroon.

Eragrostis paniciformis (A.Br.) Steud. *Syn. Pl. Gram.* 268. (1854).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Ethiopian seed. **Basionym or Replaced Name:** *Poa paniciformis* A. Braun, *Flora* 24(1): 274 (1841). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Anon.*, Cultivated in a garden in Carlsruhe, Germany, from seed collected in Ethiopia by Schimper (? (photo, US-2851251)).

Illustrations (Books): R.M.Phillips, F.T.E.A., *Gramineae* (2:190, Fig.60), G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):57, t. 24), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (128, Fig 51).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. forma, appearance. Resembling *Panicum* with respect to the inflorescence.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or decumbent, 15–90 cm long. Ligule a fringe of hairs. Leaf-blades 3–15 cm long, 2–5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 4–22 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 10–26 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 4–9 mm long, 3–5 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 2–3 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 2–3 mm long, 1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, gibbous, 2–2.7 mm long, membranous, dark green or grey, keeled, 3 -veined, 0–3 -veined. Lemma surface granulose. Lemma apex cuspidate. Palea keels ciliate (at least upper florets). Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.5–0.7 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.8–1.2 mm long.

Distribution (TDWG). Continent. Africa, Australasia (*), South America.

Country /Province /State. West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa. Rwanda, DRC. Eritrea, Ethiopia (inc. Eritrea), Sudan. Kenya, Tanzania, Uganda. Malawi, Zambia. **Australia.** Queensland (*). **Brazil.** Brazil Southeast. South East.

Eragrostis papposa (Roem. & Schult.) Steud. *Nom. ed.* II. i. 564. (1840).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), T.G.Tutin et al, *Flora Europaea* 5 (1980).

TYPE from Spain. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: T: *Dufour s.n.*, Spain: Sagunto (NTM).

Illustrations (Books): R.M.Phillips, F.T.E.A., *Gramineae* (2(1974):196, Fig.62), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (123, Fig 50).

Derivation (Clifford & Bostock 2007): Gk. pappos, grandfather. With long silky hairs on the glumes.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, short-lived, cushion forming or caespitose. Butt sheaths glabrous. Basal innovations subterete. Culms erect or geniculately ascending, 10–40 cm long. Ligule a fringe of hairs. Leaf-blades flat or involute, 2–15 cm long, 1–2 mm wide, stiff, glaucous.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 3–10 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, eglandular or glandular.

Fertile Spikelets. Spikelets comprising 5–18 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets linear, laterally compressed, 3.5–11 mm long, 1 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.3–1 mm long, 0.3–0.7 length of upper glume, hyaline, without keels, 0 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.8–1.3 mm long, 0.7–0.8 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla, free at tip. Fertile lemma elliptic or orbicular, 1.1–1.7 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.1–0.2 mm long. Caryopsis with adherent pericarp, ellipsoid or oblong, 0.6–1.2 mm long.

Distribution (TDWG). Continent. Europe, Africa, Temperate Asia, Tropical Asia.

Region. Southwestern Europe.

Country /Province /State. : Spain. **Northern Africa, Northeast tropical Africa, East tropical Africa.** Algeria, Morocco, Tunisia. Eritrea, Ethiopia (inc. Eritrea), Socotra, Somalia, Sudan. Kenya, Tanzania, Uganda. **Western Asia, Arabian Peninsula.** Iran. Oman, Saudi Arabia. **Indian Subcontinent, Indo-China.** Pakistan. Myanmar.

Eragrostis paradoxa Launert. *Bol. Soc. Brot., Ser. 2, v. 24* (1961).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Zimbabwe. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Zimbabwe, Besna Kobila Farm: Miller 5710 (BM holo, SRGH).

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):56, t. 23).

Derivation (Clifford & Bostock 2007): Gk. para, irregular; doxa, opinion. Different from the expected in regard to related species.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Butt sheaths persistent and investing base of culm, with fibrous dead sheaths. Culms 15–30 cm long, 2–4 -noded. Lateral branches lacking. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades flexuous, filiform, involute, 5–25 cm long, 0.5–2 mm wide. Leaf-blade surface scaberulous, rough adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 5–8 cm long, 3.5–7 cm wide. Primary panicle branches ascending, 1 -nate, branching dichotomously. Panicle branches flexuous, scaberulous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 2–7 mm long, smooth or scaberulous, tip widened.

Fertile Spikelets. Spikelets comprising 6–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 8–12 mm long, 3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate or ovate, 2.8 mm long, 0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate or ovate, 3–3.2 mm long, 0.66 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic, 3.5 mm long, 2.5–2.7 mm wide, membranous, much thinner above, grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent, stopping well short of apex. Lemma apex obtuse. Palea elliptic, 3 mm long. Palea keels eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, 0.3 mm long, fleshy. Anthers 3, 1.3 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. **South tropical Africa.** Malawi, Zambia, Zimbabwe.

Eragrostis parviflora (R.Br.) Trin. *Mem. Acad. Petersb. Ser. VI. i. 411* (1831).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Australia. **Basionym or Replaced Name:** *Poa parviflora* R. Br., *Prodr.* (1810). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia: Portum Jackson, inclusis ripis aestuarii, Hunter's River vel Coal River.,.

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (378, Fig 310), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (117, Pl 33 as *E. parifolia*), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (255), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (374 & 379, Fig 67 & 68), D.Sharp & B.K.Simon, *AusGrass. Grasses of Australia*. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 173, Fig.3 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass. Grasses of Australia*. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): *L. parvus*, small; flos, flower. Spikelets small or with few florets.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms 30–60 cm long, 3–4 -noded. Lateral branches lacking. Ligule a fringe of hairs. Leaf-blades 6–30 cm long, 2–5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 15–30 cm long, 10–20 cm wide. Primary panicle branches spreading, whorled at lower nodes. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 2–8 mm long.

Fertile Spikelets. Spikelets comprising 6–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 4–10 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.2 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5–2 mm long, 1–1.3 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma lanceolate, 1.5 mm long, membranous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, 0.5 mm long.

Distribution (TDWG). Continent. Europe (*), Tropical Asia, Australasia, Pacific.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Indo-China, Papuasia.** Vietnam. New Guinea, Solomon Is. **Australia.** Western Australia, Northern Territory, South Australia, Queensland, New South Wales, A.C.T., Victoria. **Southwestern Pacific, North-central Pacific.** New Caledonia. Hawaii.

Ereman. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre, Southern. North, Central, South East, Inland. Coast, Tablelands, Western Slopes, Western Plains.

Eragrostis pascua S.M. Phillips. *Kew Bull.*, 46(1): 112 (1991).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ethiopia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Eritrea: Oule Cusai: Decamere, 2000 m, *Pappi 1705* (HT: FT).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. pascuum*, pasture. Grassland species.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 40–70 cm long. Ligule a fringe of hairs. Leaf-blades 6–20 cm long, 2.5–5 mm wide. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, 10–20 cm long. Primary panicle branches 1 -nate. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 3–8 mm long, eglandular or glandular.

Fertile Spikelets. Spikelets comprising 7–21 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 6–12 mm long, 2–2.3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.4–1.9 mm long, 0.75 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.9–2.2 mm long, 0.9 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets imbricate to tip. Fertile lemma elliptic, 2–2.6 mm long, membranous, dark green or black, keeled, 3 -veined, 0–3 -veined. Lemma surface scaberulous, rough above. Lemma margins scaberulous. Lemma apex obtuse. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.3–0.4 mm long. Caryopsis with adherent pericarp, ellipsoid or oblong, 0.8–0.9 mm long, obtuse.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa. Eritrea, Ethiopia (inc. Eritrea).

Eragrostis pastoensis (Kunth) Trin. *Bull. Sc. Acad. Petersb.* 70. (1836).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Colombia. **Basionym or Replaced Name:** *Poa pastoensis* Kunth, *Nov. Gen. Sp. (quarto ed.)* 1: 160 (1815) [1816]

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Bonpland 2149*, Dec, Colombia: Pasto, Mt. Arand (P-Bonpl.; IT: P, US-2767397 (fragm. ex P-Bonpl., fragm. ex B-Bonpl.)).

Illustrations (Books): S.A.Renvoize, *Gramineas de Bolivia* (1998) (309, Fig 64), G.Harling & C.Persson, *Flora of Ecuador* (2006) (68: 47, Fig. 6 (2001)).

Illustrations (Journals): *Ann. Missouri Bot. Gard.* (94: 777 fig 17 (2007)).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From Pasto, Colombia.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–50 cm long. Ligule a fringe of hairs. Leaf-blades flat or involute, 2–3 mm wide. Leaf-blade apex attenuate, filiform.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear, 8–15 cm long. Primary panicle branches appressed or ascending. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–5 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Northern South America, Western South America, Brazil. Venezuela. Bolivia, Colombia, Ecuador. Brazil West Central, Brazil Northeast, Brazil Southeast.

TDWG4. Catamarca, Jujuy, Salta, Santiago del Estero, Tucuman. Cordoba.

Eragrostis patens Oliver. *Trans. Linn. Soc.* xxix. 175. (1875).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Uganda. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Bunyoro, Aug 1862, *Grant Eragrostis 4, App. Speke's Journ.* 653 ; Uganda, Bunyoro: Grant (K holo).

Illustrations (Books): R.M.Pollhill, F.T.E.A., *Gramineae* (2(1974):226, Fig.64), G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):58, t. 25), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (172, Fig 143).

Derivation (Clifford & Bostock 2007): L. pateo, lie open. Panicle branches spreading or reflexed or habit open.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 6–40 cm long. Ligule a fringe of hairs. Leaf-blades 3–10 cm long, 2–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle spiciform, oblong or ovate, continuous or interrupted (in cuneate clusters), 2–10 cm long, 1.5–6 cm wide. Panicle branches glabrous or pilose. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 8–70 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 7–40 mm long, 1–1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets falling as a whole. Rhachilla internodes definite.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2–2.5 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 2–2.5 mm long, 0.6–0.8 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla. Fertile lemma elliptic or ovate, 2.5–4 mm long, membranous, pallid or purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex apiculate. Palea 0.5 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.2 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.5 mm long. $N = 10$ (1 ref TROPICOS). $2n = 20$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, East tropical Africa, South tropical Africa, Southern Africa. Congo, Rwanda, DRC. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Gauteng, Mpumalanga, Swaziland.

Eragrostis patentipilosa Hackel. *Proc. Rhodesia Sci. Ass.* vii. II. 67 (1908).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Zimbabwe. **Basionym or Replaced Name:** *Eragrostis pseudosclerantha* Chiov., *Miss. Biol. Borana, Racc. Bot., Angiosp.-Gymnosp.* 285 (1939). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Zimbabwe, Bulawayo: Gardner 33 (W holo).

Illustrations (Books): R.M.Phillips, F.T.E.A., *Gramineae* (2(1974):196, Fig.62 as *E. pseudosclerantha*), G.V.Pope et al., *Flora Zambesiaca* 10, L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (168, Fig 138 as *E. pseudosclerantha*), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (115, Fig 48).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999) (as *E. pseudosclerantha*).

Derivation (Clifford & Bostock 2007): L. pateo, lie open; pilum, hair; -osa, abundance. The rhachis is invested in spreading hairs.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, short-lived, caespitose. Stolons absent or present. Culms decumbent, 12–35 cm long. Ligule a fringe of hairs. Leaf-blades 3–9 cm long, 2–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 3–9 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform (often with brownish ring at midpoint), 2–7 mm long.

Fertile Spikelets. Spikelets comprising 7–18 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, laterally compressed, 5–10 mm long, 1.5–2.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1–1.5 mm long, 0.6–0.8 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5–2 mm long, 0.8–0.9 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.8–2.2 mm long, chartaceous, dark green, shiny, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.8 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa. DRC. Ethiopia (inc. Eritrea). Kenya, Tanzania, Uganda. Angola, Malawi, Zambia, Zimbabwe. Limpopo, North-West, Gauteng, Mpumalanga, Free State, Kwazulu-Natal.

Eragrostis patentissima Hack. ex Schinz. *Bull. Herb. Boiss.* iii. 391. (1895).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: South Africa: Transvaal: Houtbosh, *Rehmann 5684*.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (140, Fig 108).

Derivation (Clifford & Bostock 2007): L. pateo, lie open; -issimum, most.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes elongated. Butt sheaths glabrous. Culms 50–70 cm long. Ligule a fringe of hairs. Leaf-blades 12–25 cm long, 2–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate or globose, effuse, 15–30 cm long. Primary panicle branches spreading. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, flexuous, 12–32 mm long, 3 length of fertile spikelet.

Fertile Spikelets. Spikelets comprising 6–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 6–8(–15) mm long, 1.5–3 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 1.5 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 3 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acuminate. Palea oblanceolate. Palea keels thickened, ciliolate. Palea apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.8–1 mm long. Caryopsis with adherent pericarp, ellipsoid, 1 mm long. Embryo 0.4 length of caryopsis.

Distribution (TDWG). Continent. Europe (*), Africa.

Region. Northern Europe (*).

Country /Province /State. Southern Africa. Limpopo, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Eastern Cape.

Eragrostis patula (Kunth) Steud. *Nom. ed.* II. i. 564. (1840).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ecuador. **Basionym or Replaced Name:** *Poa patula* Kunth, *Nov. Gen. Sp. (quarto ed.)* 1: 158–159 (1815) [1816]

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: *Humboldt & Bonpland s.n.*, Apr-May, Ecuador (US-2766206 (fragm.)).

Illustrations (Books): S.A.Renvoize, *Gramineas de Bolivia* (1998) (318, Fig 67).

Derivation (Clifford & Bostock 2007): L. outspread. Inflorescence an open panicle.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous. Basal innovations flabellate. Culms erect, 10–70 cm long. Ligule a fringe of hairs. Leaf-blades 4–30 cm long, 1–3 mm wide. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 5–20 cm long. Panicle branches glabrous in axils or bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, eglandular or glandular.

Fertile Spikelets. Spikelets comprising 4–16 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 4–16 mm long, 1–3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.5–1 mm long, 0.5–0.6 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 0.8–1.4 mm long, 0.5–0.6 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla (initially) or divergent, free at tip (serrate in outline). Fertile lemma elliptic or oblong, 1.6–2.5 mm long, membranous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex obtuse or acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.5–0.9 mm long. Caryopsis with adherent pericarp, oblong, laterally compressed (strongly), 1 mm long.

Distribution (TDWG). Continent. Africa, Temperate Asia, Tropical Asia, Pacific, North America, South America.

Country /Province /State. West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, and Western Indian ocean. Rwanda, DRC. Eritrea, Sudan. Madagascar. **Arabian Peninsula.** Oman. **Indian Subcontinent, Indo-China, Malesia, Papuasias.** Bangladesh, India, Sri Lanka. Myanmar. Borneo, Philippines, Sumatra. **South-central Pacific and North-central Pacific.** New Caledonia. Cook Is. Hawaii. **Mexico.** Southwest Mexico, Southeast Mexico. **Mesoamerica, Western South America, Brazil,** and **Southern South America.** Colombia.

Eragrostis paupera Jedwabnick. *Bot. Archiv*, v. 214 (1924).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Hawaii. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: *H. Mann & W.T. Brigham 44*, no date, Hawaii: Hawaii I., Honolulu Co. (US-912130).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. poor. Culms diminutive.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms erect, 10–20 cm long. Culm-internodes antrorsely scabrous. Leaf-sheaths longer than adjacent culm internode, glabrous on surface. Ligule a fringe of hairs, 0.6 mm long. Leaf-blades involute, 2–5 cm long, 1 mm wide. Leaf-blade surface scaberulous, rough abaxially, hispid, hairy adaxially.

Inflorescence. Inflorescence a panicle, comprising 5–40 fertile spikelets. Panicle open, lanceolate, 3–6 cm long, bearing few spikelets. Primary panicle branches appressed, simple. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–35 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, straight or curved, laterally compressed, 5–45 mm long, 1–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.5 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume ovate, 2 mm long, 1.1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile lemma ovate, 1.8 mm long, cartilaginous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scabrous. Lemma apex emarginate. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, ovoid or orbicular, 0.5–0.8 mm long, dark brown.

Distribution (TDWG). Continent. Pacific.

Country /Province /State. Southwestern Pacific, North-central Pacific. Gilbert Is, Phoenix Archipelago. Line Is. Hawaii.

Eragrostis pectinacea (Michx.) Nees. *Fl. Afr. Austr.* 406 in syn. (1841).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)*, T.G.Tutin et al, *Flora Europaea* 5 (1980), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from USA. **Basionym or Replaced Name:** *Poa pectinacea* Michx., *Fl. Bor.-Amer.* 1: 69 (1803)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Michaux s.n.*, USA: Illinois, in arvis illinoensibus (P-MICH; IT: US-2851264 (fragm. ex P-STEUD)).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (84 as var. *pectinacea & tracyi & miserrima*), F.W.Gould, *The Grasses of Texas* (1975) (199, Fig. 101 as *E. diffusa*), W.Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (220, Fig 76), E.Hafliger & E.Schultz, *Grass Weeds*, CIBA-GEIGY (2:72(1980)).

Illustrations (Journals): *Sida* (21: 1405, Fig.12A-C as var. *pectinacea*, Fig. 12D as var. *miserrima* (2005)), *Ann. Missouri Bot. Gard.* (94: 779 fig 18 (2007)).

Derivation (Clifford & Bostock 2007): L. pecten, comb; -acea, indicating resemblance. The paleas are retained on the mature rhachilla giving it a comb-like appearance.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Butt sheaths green or purple. Culms geniculately ascending or decumbent, 15–40 cm long. Leaf-sheaths 3–6 cm long. Leaf-sheath oral hairs bearded, 2–2.5 mm long. Ligule a fringe of hairs, 0.5–1 mm long. Leaf-blades 5–18 cm long, 1–3 mm wide. Leaf-blade surface scaberulous, rough adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 7–20 cm long. Primary panicle branches simple. Panicle branches bearded in axils. Spikelets appressed, solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–18 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 5–8 mm long, 1–1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1 mm long, 0.6 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins distinct. Lemma apex acute. Palea 1.5 mm long. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, obovoid, 0.8–1.2 mm long, dark brown or red.

$N = 30$ (1 ref TROPICOS). $2n = 60$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe, Tropical Asia, Pacific, North America, South America.

Region. Northern Europe (*), Southwestern Europe.

Country /Province /State. : GB Aliens (Ryves et al). : France. **Malesia.** Philippines. **North-central Pacific.** Caroline Is. Hawaii (*). **Western Canada, Eastern Canada, Northwest USA, North-central USA, Northeast USA, Southwestern USA, South-central USA, Southeastern USA, Mexico.** British Columbia. Newfoundland, Nova Scotia, Quebec. Colorado, Idaho, Montana, Oregon, Washington, Wyoming. Illinois, Iowa, Kansas, Minnesota, Missouri, North Dakota, Nebraska, Oklahoma, South Dakota, Wisconsin. Connecticut, Indiana, Maine, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia. Arizona, California, Nevada, Utah. New Mexico, Texas. Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, District of Columbia. Central Mexico, Northeast Mexico, Gulf (Mexico), Pacific Is (Mexico), Northwest Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica, Northern South America, Western South America, Brazil, Southern South America.** Costa Rica, El Salvador, Guatemala, Honduras, Panama. French Guiana, Guyana, Surinam, Venezuela. Colombia, Ecuador, Peru. Brazil West Central, Brazil North, Brazil Southeast. Argentina Northeast, Paraguay, Uruguay.

TDWG4. Buenos Aires, Chaco, Cordoba, Distrito Federal, La Pampa, Distrito Federal, Mexico State, Morelos, Puebla, Tlaxcala. Aguascalientes, Coahuila, Chihuahua, Durango, Guanajuato, Hidalgo, Neuvo Leon, Queretaro, San Luis Potosi, Tamaulipas, Zacatecas. Veracruz. Baja California, Baja California Sur, Sinaloa, Sonora. Colima, Guerrero, Jalisco, Michoacan, Nayarit, Oaxaca. Campeche, Chiapas, Quintana Roo, Tabasco, Yucatan.

Eragrostis perbella K. Schum. ex Engl. *Abh, Preuss. Akad. Wiss.* 38; *et in Pflanzenw. Ost-Afr. C* (1895) 115. (1895).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Tanzania. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Hildebr. 1080*, Sansibar, Insel

ST: *Gombelo.-Holst 2207*, Usagara-Usambara ; Tanzania, (K isosyn).

Illustrations (Books): R.M.Phill, F.T.E.A., *Gramineae* (2(1974):196, Fig.62).

Derivation (Clifford & Bostock 2007): L. per, very; bella, beautiful. Of attractive appearance.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous. Culms erect, 60–100 cm long. Ligule a fringe of hairs. Leaf-blades flat or involute, 10–25 cm long, 2–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, 9–35 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, linear.

Fertile Spikelets. Spikelets comprising 12–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets oblong, laterally compressed, 7–18 mm long, 2–3.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, tough throughout or fragile above, with the distal florets falling as a whole.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.7–2.7 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.7–2.7 mm long, 0.8–0.9 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume apex acute.

Florets. Fertile florets divergent, imbricate to tip (initially) or free at tip (serrate at maturity). Fertile lemma ovate, 2–3 mm long, membranous, mid-green or red, keeled, 3 -veined, 0–3 -veined. Lemma apex acute or apiculate. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2, 0.6–0.7 mm long. Caryopsis with adherent pericarp, orbicular, isodiametric, 0.4–0.5 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa, East tropical Africa. Somalia. Kenya, Tanzania.

Eragrostis perennans Keng. *Sunyatsenia*, iii. 16 (1935).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: Y.K. Wang 30022, 7 Oct 1929, China: Guangdong: Ying tak (US-79707 (fragm. ex ?)).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 672).

Derivation (Clifford & Bostock 2007): L. perenno, persist for several years. Perennials.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms erect, 20–120 cm long, 1–2 mm diam., 2–3 -noded. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs, 0.2 mm long. Leaf-blades flat or involute, 10–30 cm long, 3–6 mm wide. Leaf-blade surface smooth or scaberulous, rough adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 7–30 cm long, 3–12 cm wide. Panicle branches scaberulous, glabrous in axils or bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–5 mm long, scaberulous.

Fertile Spikelets. Spikelets comprising 7–28 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–18 mm long, 2–2.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes 0.7 mm long.

Glumes. Glumes similar, shorter than spikelet. Lower glume ovate, 1.2–1.8 mm long, 0.8–0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein smooth or scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5–2 mm long, 0.66–0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein smooth or scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2–3 mm long, membranous, pallid or purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Palea bowed outwards, 1.5–2 mm long, 2 -veined. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3. Caryopsis with adherent pericarp, orbicular, isodiametric, 0.8–1 mm long.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. China. China South Central, Hainan, China Southeast. **Indo-China.** Vietnam.

TDWG4. Fujian, Guangdong, Guangxi, Zhejiang. Guizhou, Yunnan.

Eragrostis perennis Doell. *Mart. Fl. Bras.* ii. III. 144. (1878).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Brazil. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: W.J. Burchell 5689, Brazil: Minas Gerais: inter Rio Grande et Tejuco (BR; IT: K, US-79708 (fragm.)).

Illustrations (Books): L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (343, Fig. 79), B.Rosengurtt, *Gramineas Uruguayas I* (1970) (260, Fig. 107).

Derivation (Clifford & Bostock 2007): L. persisting for several years. Perennials.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths persistent and investing base of culm, with fibrous dead sheaths. Basal innovations intravaginal. Culms erect, 30–80 cm long, 1–2 -noded. Leaf-sheaths 3–12 cm long, mostly shorter than adjacent culm internode, hirsute. Ligule a fringe of hairs, 0.1 mm

long. Leaf-blades flat or involute, 2–30 cm long, 1–2.9 mm wide. Leaf-blade surface hirsute, hairy on both sides.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate, 6–14 cm long, bearing few spikelets. Primary panicle branches 2 cm long. Panicle branches glandular (in axil), glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, scabrous.

Fertile Spikelets. Spikelets comprising 6–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 5–7.5 mm long, 1.5–2.5 mm wide, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.5 mm long, 0.5–0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 2–2.1 mm long, 0.75–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2–2.8 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins obscure. Lemma apex acute. Palea keels scabrous, adorned all along. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1–1.5 mm long. Caryopsis with adherent pericarp, sulcate on hilar side, 1 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Brazil, Southern South America. Bolivia. Brazil Northeast, Brazil Southeast, Brazil South.

Minas Gerais, Rio de Janeiro, Espirito Santo, Sao Paulo Parana, Catarina, Rio Grande do Sul. Corrientes, Entre Rios, Misiones.

Eragrostis pergracilis S. T. Blake. *Proc. Roy. Soc. Queensl.* lix. 154 (1948).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia, Queensland. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: S.T. Blake 14084, 22 May 1939, Australia: Queensland: Warrego Dist.: Dynever Downs, in mulga scrub on reddish very silty loam, about 500 ft (BRI; IT: L, US-2959129).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (378, Fig 311), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (255), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (350, Fig 63), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): L. per, very; gracile, delicate. Culms slender.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms erect, slender, 10–30 cm long, 2–3 -noded. Lateral branches lacking. Leaf-sheaths wider than blade at the collar, glabrous on surface. Ligule a fringe of hairs. Leaf-blades filiform, involute, 1–5 cm long, 1–1.5 mm wide. Leaf-blade midrib keeled beneath. Leaf-blade venation with 9–11 secondary veins. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, dense or loose, 30 cm long, 2–6 cm wide, 0.25–0.33 of culm length. Primary panicle branches 5–10 -nate, rebranched near base, 1–2.5 cm long. Panicle axis smooth or scaberulous. Panicle branches capillary, flexuous, angular, smooth. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 20–50 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, curved, laterally compressed or subterete, compressed slightly, 10–40 mm long, 1–1.2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes 0.6–0.7 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.4 mm long, 0.8–0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume ovate, 1–1.4 mm long, 0.66–0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile lemma elliptic or ovate, elliptic in profile, 1.5–1.6 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma apex entire or erose, emarginate or obtuse. Palea 1.3–1.4 mm long. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, oblong, 0.3–0.4 mm long. Caryopsis with adherent pericarp, ellipsoid or ovoid, dorsally compressed, 0.45–0.55 mm long, obtuse.

Distribution (TDWG). Continent. Europe (*), Australasia.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Australia.** Western Australia, Northern Territory, South Australia, Queensland, New South Wales, Victoria.

Ereman, South-West. Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre, Southern. Central, Inland. Western Plains.

Eragrostis perlaxa P. C. Keng. *Acta Bot. Sin.* 9: 66 (1960).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Guangdong: 27 Aug. 1930, *T.N. Liou 2050-a* (HT: PE).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 669).

Derivation (Clifford & Bostock 2007): *L. per*, very; *laxa*, weak. Culms decumbent and creeping.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, slender, 40–90 cm long, 1 mm diam., 2–3 -noded. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades involute, 3–8 cm long, 1–2.5 mm wide. Leaf-blade surface pilose.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, loose, 7–25 cm long, 4–9 cm wide. Primary panicle branches 1 -nate, 4–8 cm long, bearing 2–5 fertile spikelets on each lower branch. Panicle branches glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 5–10 mm long.

Fertile Spikelets. Spikelets comprising 6–60 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 5–25 mm long, 3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes similar, shorter than spikelet. Lower glume ovate, 1.2 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 1.5 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scabrous. Lemma lateral veins distinct. Lemma apex acute. Palea 1.8 mm long, 2 -veined. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.3 mm long. Caryopsis with adherent pericarp, 0.6 mm long.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. **China, Eastern Asia.** China Southeast. Taiwan.

TDWG4. Anhui, Fujian, Guangdong, Guangxi.

Eragrostis perrieri A. Camus. *Bull. Soc. Bot. France*, lxxiv. 688 (1928).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Madagascar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Madagascar occid.: pentes de Mont Tsitondroina, *Perrier de la Bbthie 11118*.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Joseph Marie Henri Alfred Perrier de la Bbthie (1872–1958) French botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms erect, 5–30 cm long. Leaf-sheaths hirsute. Ligule a fringe of hairs. Leaf-blades lanceolate, 1.5–4 cm long, 2 mm wide, stiff. Leaf-blade surface pilose. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle contracted or glomerate, linear, 1.5–3 cm long, 0.4–0.5 cm wide. Spikelets solitary. Fertile spikelets sessile. Pedicels present.

Fertile Spikelets. Spikelets comprising 10–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 6–10 mm long, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes 0.25 mm long, eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.8 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.8 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined. Upper glume apex acute.

Florets. Fertile lemma ovate, 2 mm long, cartilaginous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea 1.8 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

Eragrostis peruviana (Jacq.) Trin. *Mem. Acad. Petersb. Ser. VI. i.* 396. (1830).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Peru. **Basionym or Replaced Name:** *Poa peruviana* Jacq., *Collectanea* 1: 107 (1786) [1787]. T:<Type of Basionym>; *vide* TROPICOS and Kew Synonymy Database: HT: *N.J. von Jacquin*, Peru (?; IT: US-2851260 (fragm.)).

Illustrations (Journals): *Ann. Missouri Bot. Gard.* (94: 780 fig 19 (2007)).

Derivation (Clifford & Bostock 2007): L. -ana, indicating location. From Peru.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms decumbent, 10–35 cm long. Ligule a fringe of hairs. Leaf-blades 3–6 cm long, 2–3 mm wide. Leaf-blade surface pubescent, hairy on both sides.

Inflorescence. Inflorescence a panicle. Panicle spiciform, oblong or ovate, continuous, 2–5 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 2.8–3 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.8–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Southern South America. Peru. Chile North, Desventurados Is.

Tarapaca, Antofagasta, Atacama.

Eragrostis petraea M. Lazarides. *Austral. Syst. Bot.*, 10(1): 141 (1997).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>; *vide* TROPICOS and Kew Synonymy Database: Australia, Darwin & Gulf district: Lazarides 8841 (CANB holo, B, DNA, G, L, MEL, NSW, PERTH, PRE).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (379, Fig 68), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 173, Fig.3 (1997)).

Derivation (Clifford & Bostock 2007): L. that grows amongst rocks. Growing in rocky places.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Cataphylls evident. Butt sheaths glossy, glabrous. Culms 70–150 cm long, 4 -noded. Culm-internodes eglandular. Leaf-sheaths tight, eglandular, smooth, glabrous on surface, outer margin glabrous. Leaf-sheath oral hairs lacking. Ligule a fringe of hairs, 0.2–0.3 mm long. Leaf-blades flat or involute or convolute, 15–30 cm long, 2–4.4 mm wide, stiff. Leaf-blade surface ribbed, scabrous, rough adaxially, glabrous. Leaf-blade margins cartilaginous, eglandular, scabrous. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle. Peduncle eglandular. Panicle open, ovate, effuse, 20–46 cm long, 8–16 cm wide. Primary panicle branches 8–16 cm long. Panicle axis eglandular, scabrous. Panicle branches capillary, eglandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 3–10 mm long, eglandular.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 38–55 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 16–27 mm long, 2.7–3 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes elongated between glumes, thickened, straight, 0.4–0.5 mm long.

Glumes. Glumes deciduous or lower persistent, upper deciduous, similar, shorter than spikelet. Lower glume linear or oblong, 0.3–0.6 mm long, 0.5 length of upper glume, membranous, without keels, 0–1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume lanceolate, 0.6–1.2 mm long, 0.4–0.5 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Basal sterile florets 1, barren, separately deciduous. Lemma of lower sterile floret similar to upper glume, lanceolate, 1 -veined. Fertile lemma lanceolate, 1.5–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins close to margins. Lemma surface smooth or granulose. Lemma apex acute. Palea oblanceolate, with flaps narrower than body, hyaline, 2 -veined. Palea keels scaberulous, adorned above. Palea apex obtuse, scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.3 mm long. Caryopsis with adherent pericarp, oblong, 0.5–0.6 mm long, reticulate.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory.
Kimberley. Darwin & Gulf.

Eragrostis petrensis S.A. Renvoize & H.M. Longhi-Wagner. *Kew Bull.*, 41(1): 71 (1986).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *Longhi-Wagner et al. CFCR 6752*, 13 Dec 1984, Brazil: Bahia: Rio de Contas (SPF; IT: K, US).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. petra*, rock; -ense, denoting origin. Growing amongst exposed rocks.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths coriaceous, yellow, glossy. Culms erect, 40–80 cm long. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades involute, 10–35 cm long, 2–2.5 mm wide, stiff. Leaf-blade surface glabrous to pilose, densely hairy.

Inflorescence. Inflorescence a panicle. Panicle open, pyramidal, interrupted, 11–28 cm long. Primary panicle branches whorled at most nodes, bearing spikelets almost to the base. Panicle axis glabrous to pilose. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 4–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–6 mm long, 1–2 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes similar, shorter than spikelet. Lower glume ovate, 1.5–2.3 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5–2.3 mm long, 0.75–0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.8–2.5 mm long, membranous, purple, suffused with last colour, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma surface scaberulous. Lemma apex acute. Palea 1.8–2 mm long, 2 -veined. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.7–0.8 mm long, yellow or purple. Caryopsis with adherent pericarp, oblong, 0.8 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil. Brazil Northeast, Brazil Southeast.

Eragrostis phyllacantha Cope. *Kew Bull.* 53:162 (1998).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Botswana. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Botswana: Ghanzi, 25 Jul 1955, *Story 5035* (HT: K).

Illustrations (Journals): *Kew Bulletin* (161, fig.7 (1998)).

Derivation (Clifford & Bostock 2007): *Gk phllon*, leaf; *akanthos*, prickly plant. Leaves pungent.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual or perennial, short-lived, caespitose. Butt sheaths hirsute. Glands sunken crateriform. Culms erect, 10–25 cm long, wiry. Culm-internodes eglandular. Culm-nodes glabrous. Lateral branches sparse, arising from lower culm. Leaf-sheaths eglandular, without keel, hirsute, with tubercle-

based hairs. Ligule a fringe of hairs. Leaf-blades involute, 1–3.5 cm long, 1–1.5 mm wide, stiff, eglandular. Leaf-blade surface hirsute, hairy abaxially, with tubercle-based hairs. Leaf-blade apex pungent.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 3.5–5 cm long. Panicle branches stiff, eglandular or glandular, bearded in axils, with insignificant pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.8–1.5 mm long, glandular.

Fertile Spikelets. Spikelets comprising 5–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–4 mm long, 1 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 1.3–1.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.3–1.5 mm long, 0.5–0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla. Fertile lemma elliptic, 1.5–1.7 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma surface scaberulous, rough on veins. Lemma apex acute. Palea 2 -veined. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.6–0.8 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.7 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa. Zimbabwe. Botswana.

Eragrostis pilgeri Fedde. *Just, Bot. Jahresb.* 34:18 (1908).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Peru. **Basionym or Replaced Name:** *Eragrostis andicola* Pilg., *Bot. Jahrb. Syst.* 37: 377 (1906)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: LT: *A. Weberbauer 3114*, 27 May 1903, Peru: Ancash: Hacienda Cajabamba, entre Samanco y Caraz (MOL; IT: BAA-999 (fragm. ex B), US-2766205 (fragm.)). LT designated by J.J. Alegrma & A. Granda, *Sida* 19(4): 1158 (2001).

Illustrations (Journals): *Ann. Missouri Bot. Gard.* (94: 783 fig 20 (2007) as subsp. *ancashensis*).

Derivation (Clifford & Bostock 2007): in honor of Robert Knuds Friedrich Pilger (1876–1953) German agrostologist, born on Helgoland before its transfer from British to German administration.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms 30–50 cm long. Ligule a fringe of hairs. Leaf-blades filiform, involute, 10–20 cm long, 1.5–2 mm wide. Leaf-blade surface scaberulous.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or oblong, 15–20 cm long. Primary panicle branches bearing spikelets almost to the base. Panicle branches capillary, flexuous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, flexuous.

Fertile Spikelets. Spikelets comprising 4–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 4.7–6 mm long, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes pubescent, hairy above.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 2.5–2.7 mm long, 0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 2.5–2.7 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2.6–3 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America. Peru.

Eragrostis pilgeriana Hitchcock, non Pilg.(1914). *Contrib. U. S. Nat. Herb.* xxiv. 342 (1927).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Peru. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: : Based on *E. andicola* Pilger ; Peru, Samanco to Caraz: Weberbauer 3114 (B holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ana, indicating connection. In honor of Robert Knuds Friedrich Pilger (1876–1953) German agrostologist, born on Helgoland before its transfer from British to German administration.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms 10–40 cm long. Ligule a fringe of hairs. Leaf-blades 5–15 cm long, 2–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear or oblong, 2–6 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 3–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate or orbicular, laterally compressed, compressed strongly, 4–8 mm long, 6–7 mm wide, falling entire.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 4 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 4 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets free at tip. Fertile lemma ovate, 5 mm long, membranous, keeled, winged on keel, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma apex acute. Palea keels winged, conspicuously winged, with erose wings, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.5 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa. Angola. Namibia, Botswana, Northern Cape.

Eragrostis pilosa (L.) Beauv. *Agrost.* 71. (1812).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983), T.Koyama, *Grasses of Japan and its neighboring regions* (1987), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Italy. **Basionym or Replaced Name:** *Poa pilosa* L., *Sp. Pl.* 1. 68 (1753). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: Scheuzer, *Agrostographia* 193, pl. 4 4, f. 3 (1719), LT designated by Du Puy, Telford & Edgar, *Fl. Australia* 50: 472 (1993).

ET: A. Kneucker, *Gram. Exsicc.* XII, 344, 9–10 Aug 1902, Italy: an Wegen zwischen den Reisfeldern von Pldenico unweit Vercelli in Oberitalien (B; IET: L, US-557051). ET designated by Scholz in Cafferty et al., *Taxon* 49(2): 256 (2000).

LT: Tiumfetti s.n., Italy LT designated by Clayton, *Fl. Trop. East Africa, Gramineae* 3: 214 (1974), but as this is not original material, the lectotypification is ineffective [*fide* Cafferty et al., *Taxon* 49(2): 256 (2000)].

Recent Synonyms: *Eragrostis perplexa* L. H. Harvey, *Bull. Torr. Bot. Cl.* 81: 409 (1954).

Illustrations (Books): R.M.Phillips, F.T.E.A., *Gramineae* (2(1974):193, Fig. 61), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (165, Fig. 57), N.Feinbrun-Dothan, *Flora Palaestina* 4 (1986) (Pl. 376), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995), L.Boulos, *Flora of Egypt* 4 (2005) (257, Pl. 76), N.L.Bor, *Gramineae in Flora of Iraq* (1968) (448, Pl. 171), C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (414), C-C Hsu, *Taiwan Grasses* (1975), K.M.Matthew, *Further Illustrations on the Flora of Tamilnadu Carnatic* (1988) (Pl.778), H.J.Noltie, *The Grasses of Bhutan* (2000) (659, Fig. 33), H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005) (73, Fig. 65), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (379, Fig. 312), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (255), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989), *Flora of Australia Oceanic Islands Poaceae* 50(1993) & 49(1994) (50:473 Fig.90 (1993)), M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (82 as var. *pilosa* & *perplexa*), A.S.Hitchcock, *Manual of the Grasses of the West Indies* (1936) (40, Fig. 18), S.A.Renouze, *Gramineas de Bolivia* (1998) (311, Fig. 65), S.A.Renouze, *The Grasses of Bahia*, 1984 (67, Fig. 24), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (340, Fig. 78 & 357, Fig. 83), A.Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, *Gramineas* (1969) (181, Fig. 63), A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (336, Fig. 86), M.N.Correa, *Flora Patagonica Parte III, Gramineae* (1978) (485, Fig. 326), B.Rosengurtt, *Gramineas Uruguayas I* (1970)

(260, Fig. 107), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 668), E.Hafliger & E.Schultz, Grass Weeds, CIBA-GEIGY (2:73(1980)).

Illustrations (Journals): *Sida* (21: 1405, Fig.12E-G as var. *pilosa*, Fig. 12I-J as var. *perplexa* (2005)), *Ann. Missouri Bot. Gard.* (94: 779 fig 18 (2007)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, H.B.Gilliland et al., *Flora of Malaya Vol. 3 Grasses* (1971);.

Derivation (Clifford & Bostock 2007): *L. pilus*, a hair; -osa, abundance. The whole plant or any of its organs invested with long spreading hairs.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 8–70 cm long. Ligule a fringe of hairs. Leaf-blades 2–20 cm long, 1–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, 4–25 cm long. Primary panicle branches whorled at lower nodes. Panicle branches eglandular, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, eglandular.

Fertile Spikelets. Spikelets comprising 4–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 3–7 mm long, 0.7–1.2 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas or retaining paleas (in temperate regions).

Glumes. Glumes deciduous, dissimilar, shorter than spikelet. Lower glume ovate, 0.5–0.7 mm long, 0.5–0.7 length of upper glume, hyaline, without keels, 0 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1 mm long, 0.6–1 length of adjacent fertile lemma, hyaline, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla. Fertile lemma ovate, 1–1.6 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse or acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.2–0.3 mm long. Caryopsis with adherent pericarp, ellipsoid, laterally compressed, plano-convex, 0.6–1 mm long.

$N = 15$ (1 ref TROPICOS), or 18 (1 ref TROPICOS), or 20 (3 refs TROPICOS). $2n = 20$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe, Africa, Temperate Asia, Tropical Asia, Australasia (*), Pacific, North America (*), South America (*).

Region. Northern Europe (*), Middle Europe, Southwestern Europe, Southeastern Europe, Eastern Europe.

Country /Province /State. : Great Britain (*). : Austria, Czechoslovakia, Germany, Hungary, Switzerland. : Corsica, France, Portugal, Sardinia, Spain. : Albania, Bulgaria, Greece, Italy, Romania, Sicily, Turkey Europe, Yugoslavia. Belarus, Krym, Central European Russia, East European Russia, South European Russia, Northwest European Russia, Ukraine. **Northern Africa, West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean.** Egypt, Libya, Morocco, Tunisia. Benin, Burkina, Gambia, Ghana, Mali, Mauritania, Nigeria, Sierre Leone, Niger. Central African Republic, DRC. Eritrea, Ethiopia (inc. Eritrea), Sudan. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, Gauteng, Swaziland, Free State, Kwazulu-Natal, Western Cape, Eastern Cape. Mauritius (*), Madagascar, Seychelles. Siberia, Russian far east, **Middle Asia, Caucasus, Western Asia, Arabian Peninsula, China, Mongolia, Eastern Asia.** Altay, Buryatiya, Chita, Irkutsk, Krasnoyarsk, Tuva. Amur, Khabarovsk, Primorye, Sakhalin. Kazakhstan, Turkmenistan, Tadzhikistan, Uzbekistan. Iran, Iraq. Gulf States, Oman. China South Central, Hainan, Inner Mongolia, Manchuria, China North-Central, China Southeast, Tibet. Japan, Kazan-retto, Nansei-Shoto, Taiwan. Japan Hokkaido, or Honshu, or Shikoku, or Kyushu. **Indian Subcontinent, Indo-China, Malesia, Papuasias.** Assam, Bangladesh, Eastern Himalaya, Pakistan, Sri Lanka. Myanmar, Thailand, Vietnam. Borneo, Java, Lesser Sunda Is, Malaya, Singapore, Philippines, Sulawesi, Sumatra, Christmas I. New Guinea. **Australia.** Western Australia (*), Northern Territory (*), South Australia (*), Queensland (*), New South Wales (*), Victoria (*). **Southwestern Pacific, Northwestern Pacific, North-central Pacific.** Fiji (*), New Caledonia. Caroline Is (*). Hawaii (*). **Northwest USA, North-central USA, Northeast USA, Southwestern USA, South-central USA, Southeastern USA, Mexico.** Colorado, Idaho, Montana, Oregon, Washington, Wyoming. Illinois, Iowa, Kansas, Minnesota, Missouri, North Dakota, Nebraska, Oklahoma, South Dakota, Wisconsin. Connecticut, Indiana, Maine, Massachusetts, Michigan, Ohio, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, West Virginia. Arizona, California, Nevada. Texas. Alabama, Arkansas, Delaware, Florida, Georgia, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, District of Columbia. Central Mexico, Northeast Mexico, Gulf (Mexico), Northwest Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica, Caribbean, Northern South America, Western South America, Brazil, Southern South America.** Costa Rica, El Salvador, Honduras, Nicaragua. Aruba, Bahamas, Bermuda, Cuba, Dominican

Republic, Haiti, Jamaica, Leeward Is, Windward Islands, Puerto Rico, Trinidad-Tobago, Venezuelan and Netherlands Antilles. French Guiana, Guyana, Venezuela. Bolivia, Colombia, Ecuador, Galapagos, Peru. Brazil West Central, Brazil Northeast, Brazil North, Brazil Southeast, Brazil South. Argentina Northeast, Argentina South, Chile Central, Chile South, Paraguay, Uruguay.

TDWG4. Beijing, Shaanxi, Shandong. Anhui, Fujian, Henan, Zhejiang. Guizhou, Hubei, Yunnan. Arunachal Pradesh, Bhutan, Sikkim. Andhra Pradesh, Bihar, Goa, Gujarat, Karnataka, Kerala. Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamilnadu, Uttah Pradesh. Jammu Kashmir. Kimberley. Darwin & Gulf, Central Australia. NW & Lake Eyre, Southern. North, Central, South East, Inland. Coast, Tablelands, Western Plains. Buenos Aires, Cordoba, Corrientes, Distrito Federal, Entre Rios, La Pampa, Misiones, Santa Fe. Coquimbo, Santiago, Maule. Magellanes. Distrito Federal, Mexico State, Morelos, Puebla. Coahuila, Chihuahua, Durango, Guanajuato, Hidalgo, Neuvo Leon, Queretaro, San Luis Potosi, Tamaulipas. Veracruz. Baja California, Baja California Sur, Sinaloa, Sonora. Colima, Guerrero, Jalisco, Michoacan, Nayarit, Oaxaca. Chiapas, Tabasco.

Eragrostis pilosissima Link. *Hort. Berol. i.* 189 (1827).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), T.Koyama, *Grasses of Japan and its neighboring regions* (1987).

TYPE from Germany. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Germany: Berlin,.

Illustrations (Books): C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (416), C-C Hsu, *Taiwan Grasses* (1975), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 663).

Derivation (Clifford & Bostock 2007): *L. pilus*, a hair; -osa, abundance; -issima, abundantly. In whole or in part densely covered with long hairs.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms 35–40 cm long. Lateral branches lacking. Leaves mostly basal. Leaf-sheaths hirsute. Ligule a fringe of hairs. Leaf-blades filiform, involute, 6–12 cm long, 1–1.5 mm wide. Leaf-blade surface hirsute.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 13–14 cm long. Primary panicle branches spreading. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 5–7 mm long.

Fertile Spikelets. Spikelets comprising 10–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 5–7 mm long, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1 mm long, 0.7–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.2 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma oblong, 1.5–1.7 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute. Palea keels smooth. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, 0.5 mm long.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. China, Eastern Asia. Hainan, China Southeast. Taiwan. Indo-China. Vietnam.

TDWG4. Fujian, Guangdong, Jiangxi.

Eragrostis pilosiuscula Ohwi. *Bot. Mag., Tokyo*, lv. 279 (1941).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), T.Koyama, *Grasses of Japan and its neighboring regions* (1987).

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Taiwan: Shinchiku, *Y. Shimada 4789* (HT: ?).

Illustrations (Books): C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (418), C-C Hsu, *Taiwan Grasses* (1975).

Derivation (Clifford & Bostock 2007): *L. pilus*, hair; -osus, abundance; -culus, diminutive. Leaf-blades with abundant short hairs.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms erect, 50–90 cm long, 1 mm diam. Lateral branches lacking. Leaf-sheaths smooth, glabrous on surface. Leaf-sheath oral hairs lacking or ciliate. Ligule a fringe of

hairs, 0.2 mm long. Leaf-blades erect, flat or involute, 7–18 cm long, 1.5–2.5 mm wide. Leaf-blade surface glabrous or pilose, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 12–35 cm long. Primary panicle branches ascending, 1-nate, 4–6 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–10 mm long, scaberulous.

Fertile Spikelets. Spikelets comprising 12–60 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 5–25 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes 0.5 mm long.

Glumes. Glumes similar, shorter than spikelet. Lower glume ovate, 0.8–1.2 mm long, 0.66–0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute or acuminate. Upper glume ovate, 1.2–1.5 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute or acuminate.

Florets. Fertile lemma oblong, 1.5–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute. Palea bowed outwards, 2 -veined. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.3 mm long, purple. Caryopsis with adherent pericarp, 0.6 mm long.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China, Eastern Asia. China Southeast. Taiwan.

TDWG4. Guangdong.

Eragrostis plana Nees. *Fl. Afr. Austr.* 390. (1841).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from South Africa. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *Drhge*, South Africa: Cap. b. sp. (LE (hrbr. Fischer)).

ST: *Drhge s.n.*, South Africa: ad flumen prope Kachu et Zandplaat

ST: *Drhge s.n.*, South Africa: inter Geckau et Basche.

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):56, t. 23), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (140&156, Fig 108&124), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (159, Fig 54), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (92).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. flat. Spikelets strongly compressed.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous. Basal innovations flabellate. Culms erect, 30–100 cm long. Culm-internodes elliptical in section. Ligule a fringe of hairs. Leaf-blades 15–30 cm long, 1–2 mm wide, stiff. Leaf-blade apex filiform.

Inflorescence. Inflorescence a panicle. Panicle contracted or open, linear or lanceolate, 12–40 cm long. Primary panicle branches bearing spikelets almost to the base. Panicle branches glandular. Spikelets appressed, solitary. Fertile spikelets pedicelled. Pedicels present, glandular.

Fertile Spikelets. Spikelets comprising 7–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 6–10 mm long, 2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.5–1 mm long, 0.5–0.7 length of upper glume, hyaline, without keels, 0 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1–1.5 mm long, 0.5–0.6 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets free at tip. Fertile lemma ovate, 2.2–2.5 mm long, membranous, dark green, shiny, glandular on veins, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins thickened. Lemma apex obtuse. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.6 mm long. Caryopsis with adherent pericarp, oblong, laterally compressed, 1.4–1.5 mm long, dark brown, rugose (obscurely bumpy).

N = 10 (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe (*), Africa, Tropical Asia, Australasia, North America, South America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **South tropical Africa, Southern Africa, Western Indian ocean.** Angola, Malawi, Mozambique, Zambia, Zimbabwe. Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Lesotho, Western Cape, Eastern Cape. Madagascar. **Indian Subcontinent, Indo-China.** Myanmar. **Australia** (*), **New Zealand** (*). New South Wales (*). New Zealand North I. **Southeastern USA.** South Carolina. **Brazil.** Brazil West Central, Brazil North, Brazil Southeast, Brazil South.

TDWG4. Coast (*).

Eragrostis planiculmis Nees. *Fl. Afr. Austr.* 391. (1841).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: South Africa, Quaggasvlakte: Drege.

Illustrations (Books): No illustration found (BKS).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): *L. planus*, flat; culmus, stem. Culms distinctly compressed.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Butt sheaths glabrous, persistent and investing base of culm, with compacted dead sheaths. Culms erect, robust, 45–170 cm long. Culm-nodes glabrous. Lateral branches lacking. Leaves mostly basal. Leaf-sheaths eglandular. Ligule a fringe of hairs. Leaf-blades filiform, 10–90 cm long, 0.5–1.5 mm wide. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 10–30 cm long, 5–10 cm wide. Primary panicle branches not whorled or whorled at lower nodes. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–11 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 4–8 mm long, 0.5–2 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas, fragile above, with the distal florets disarticulating separately.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1–1.2 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein smooth or scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.2–1.5 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein smooth or scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla. Fertile lemma ovate, 1.5–2 mm long, membranous, dark green or grey, keeled, lightly keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea keels approximate, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.6–1.2 mm long. Caryopsis with adherent pericarp.

N = 21 (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe (*), Africa.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **South tropical Africa, Southern Africa.** Mozambique, Zimbabwe. Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Lesotho, Western Cape, Eastern Cape.

Eragrostis plumbea Scribn. ex Beal. *Grasses N. Amer.* ii. 484 (1896).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mexico. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *C.G. Pringle 2311*, 1 Oct 1889, Mexico: Jalisco (MSC?; ILT: TEX, US-822001, US-1761636). LT designated by McVaugh, Fl. Novo-Gal. 14: 484 (1983), without specifically citing the lectotype, just one of the isolectotypes.

ST: *E. Palmer 240*, Jul-Oct 1880, Mexico: Jalisco: Guadalajara (MSC, MO-820709).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. leaden*. Spikelets dark-grey.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 70–100 cm long. Ligule a fringe of hairs. Leaf-blades flat or involute, 10–20 cm long, 2–5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate or ovate, 10–25 cm long. Primary panicle branches 5–10 in number, ascending, 6–12 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 8–10(–16) fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–11 mm long, 2–2.5 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.66–0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 2–3 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2.2–3.2 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma apex acuminate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, oblong, 0.8 mm long.

$2n = 60$ (1 ref TROPICOS).

Distribution (TDWG). Continent. North America.

Country /Province /State. Mexico. Central Mexico, Northeast Mexico, Gulf (Mexico), Southwest Mexico.

TDWG4. Mexico State, Puebla. Aguascalientes, Guanajuato, San Luis Potosi, Zacatecas. Veracruz. Colima, Jalisco, Michoacan.

Eragrostis plurigluma C. E. Hubbard. *Kew Bull.* 1934, 116. (1934).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Sierra Leone. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Sierra Leone: Northern Province: in Swampy Fields at Materboi, Oct 1928, *Glanville* 79.

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):76, t. 29).

Derivation (Clifford & Bostock 2007): L. plus, several; gluma, husk. Some of the lower florets are sterile, their lemmas thereby resembling glumes.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 60–100 cm long. Ligule a fringe of hairs. Leaf-blades involute or convolute, 25–45 cm long, 1–2.5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, effuse, 10–30 cm long. Panicle branches capillary, flexuous, scaberulous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 3–5 basal sterile florets, 8–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 6–7.5 mm long, 3.8–4.5 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.2–1.6 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.2–1.6 mm long, 0.5 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Basal sterile florets 2 or more, similar, barren, without significant palea, separately deciduous. Lemma of lower sterile floret similar to upper glume. Fertile florets divergent, imbricate to tip. Fertile lemma ovate, 3 mm long, chartaceous, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.4 mm long. Caryopsis with adherent pericarp, oblong, isodiametric, 1 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, West-central tropical Africa, South tropical Africa. Guinea, Mali, Senegal, Sierre Leone. Central African Republic, DRC. Angola, Zambia.

Eragrostis plurinodis Swallen. *Journ. Wash. Acad. Sci.* ii. 158 (1942).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Venezuela. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *C.E. Chardone* 249, 13 Feb 1941, Venezuela: Apure: Cerca de Cunaviche (VEN; IT: US-1817505 (fragm. ex VEN)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. plus, several; nodus, knot. Culms several-noded.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Stolons present. Culms 35–55 cm long. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.2 mm long. Leaf-blades involute, 5–15 cm long, 1–2.2 mm wide. Leaf-blade surface glabrous or pilose, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence a panicle. Peduncle 7–13 cm long. Panicle open, lanceolate, 9–13 cm long, contracted about primary branches. Primary panicle branches ascending, 1–3 cm long. Panicle branches scabrous, glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 9–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 5–13 mm long, 1.5–2.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, tough throughout or fragile above.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.8–1.8 mm long, 0.5–0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 1.8–2.5 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 2–2.3 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2, 0.2–0.3 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.7 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Northern South America, Brazil. Guyana, Venezuela. Brazil North.

Eragrostis pobeguunii C. E. Hubbard. *Hutchinson & Dalziel, Fl. W. Trop. Afr.* ii. 514, 516 (1936).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Guinea. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Guinea, Timbe: Pobeguini 1092 (K holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Charles Henri Oliver Pobeguini (1856–1951) French botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths thickened and forming a bulb, yellow, glabrous. Culms erect, 20–80 cm long. Ligule a fringe of hairs. Leaf-blades filiform or linear, convolute, 5–25 cm long, 1–3 mm wide. Leaf-blade surface pilose, hairy on both sides, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Panicle open, linear, 3–40 cm long, contracted about primary branches. Primary panicle branches indistinct the panicle almost racemose or simple, 0.5–12 cm long, bearing spikelets almost to the base. Panicle branches stiff. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 8–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 7–18 mm long, 3–5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets disarticulating separately.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 2–2.5 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 2–2.5 mm long, 0.6–0.7 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets free at tip. Fertile lemma ovate, 3–4 mm long, chartaceous, pallid or dark green, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma surface glabrous or pubescent, hairy below. Lemma apex acute. Palea keels winged, narrowly winged, scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.5 mm long. Caryopsis with adherent pericarp, ellipsoid, 1.4 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, West-central tropical Africa. Guinea, Senegal. Cameroon.

Eragrostis poculiformis T.A. Cope. *Kew Bull.*, 55(2): 487 (2000).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Tanzania. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Tanzania (T4): Mpanda District: 48 km on Mpanda-Uvinza road, 6:03'S, 30:56'E, 1300 m, 18 May 1997, large rocky outcrop with open *Brachystegia* woodland, large patches of shallow sandy seasonally inundated soil over rocks, Bigood, Sitoni, Vollensen & Whitehouse 4410 (HT: K).

Illustrations (Journals): *Kew Bulletin* (55: 489, Fig.1 (2000)).

Derivation (Clifford & Bostock 2007): *L. poculum*, goblet; *forma*, appearance. Palea goblet-like.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms erect, 12–25 cm long. Culm-internodes eglandular. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheaths eglandular, without keel, pilose (above), with tubercle-based hairs. Ligule a fringe of hairs. Leaf-blades flat or involute (loosely), 2–4 cm long, 1.5 mm wide, eglandular. Leaf-blade surface pilose, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or oblong, 6–15 cm long. Primary panicle branches not whorled, sterile at the tips. Panicle branches flexible, flexuous, eglandular, pilose, with tubercle-based hairs, bearded in axils, with insignificant pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, flexuous, 5–9 mm long.

Fertile Spikelets. Spikelets comprising 6–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, subterete, 3.5–5 mm long, 1.8–2.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes similar, shorter than spikelet. Lower glume ovate (narrowly), 1.1–1.3 mm long, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate (narrowly), 0.6–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent, free at tip. Fertile lemma elliptic (broadly), 1–1.3 mm long, membranous, mid-green or grey, without keel. Lemma lateral veins obscure. Lemma margins pilose. Lemma apex obtuse. Palea bowed outwards, 0.4–0.5 length of lemma, 2 -veined. Palea keels winged (above), conspicuously winged (above), scabrous, ciliate, adorned above. Palea surface pilose, hairy on margins. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.3–0.4 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.6 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa. Tanzania.

Eragrostis polytricha Nees. *Agrost. Bras.* 507. (1829).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *F. F. Sellow s.n. [1882]*, Brazil (B; IT: BAA-2668 (fragm. ex B), US-77386 (fragm.)).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (96), S.A.Renvoize, *Gramineas de Bolivia* (1998) (309, Fig 64), S.A.Renvoize, *The Grasses of Bahia*, 1984 (71, Fig. 25), A.Burkat, *Flora Ilustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (203, Fig 73), B.Rosengurt, *Gramineas Uruguayas I* (1970) (258, Fig. 106).

Derivation (Clifford & Bostock 2007): *Gk. polys*, several; *thrix*, hair. Axils of the panicle branches hairy.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 30–45 cm long. Ligule a fringe of hairs, 0.4 mm long. Leaf-blades flat or conduplicate, 8–23 cm long, 2.5–4.5 mm wide. Leaf-blade surface pilose, with tubercle-based hairs. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 12–15 cm long. Primary panicle branches ascending. Panicle branches scabrous, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 5–10 mm long.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 2.7–5 mm long, 1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas or shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.2–1.6 mm long, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.2–1.6 mm long, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.7–2 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse or acute. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.5 mm long. Caryopsis with adherent pericarp, ellipsoid, sulcate on hilar side, 0.6 mm long, truncate.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. **Southeastern USA, Mexico.** Florida. Central Mexico, Northeast Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica, Northern South America, Western South America, Brazil, Southern South America.** Belize, Guatemala, Honduras, Nicaragua. Guyana, Venezuela. Bolivia, Colombia. Brazil West Central, Brazil Northeast, Brazil Southeast, Brazil North, Brazil South. Argentina Northeast, Chile Central, Chile South, Paraguay, Uruguay.

TDWG4. Mato Grosso, Goias, Bahia, Minas Gerais, Rio de Janeiro, Espirito Santo, Sao Paulo Parana, Catarina, Rio Grande do Sul. Catamarca, La Rioja, Salta, Tucuman. Buenos Aires, Cordoba, Corrientes, Misiones. Rest of Chile- Biobio, La Auracania, Maule, O'Higgins, Santado, Valpariso. Santiago, Biobio, La Araucania. Los Lagos. Puebla. Guanajuato. Oaxaca. Chiapas.

Eragrostis porosa Nees. *Fl. Afr. Austr.* 401. (1841).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa, Cape. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: (LE). On labels names only.

CT: *Drige*, Cap. b. sp. (LE). Herb. Fischer.

ST: *Drige s.n.*, In collibus ad Gamka flumen

ST: *Drige s.n.*, In plantis regionalis Camdeboo.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (140, Fig 108), M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984).

Derivation (Clifford & Bostock 2007): *L. porosus*, pore; -osa, abundance. Bearing pit-like glands.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 6–80 cm long. Culm-internodes glandular (below node). Leaf-sheaths eglandular or glandular, glabrous on surface (rarely) or pilose, with tubercle-based hairs. Ligule a fringe of hairs. Leaf-blades 4–15 cm long, 2–5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate or ovate, 8–25 cm long. Primary panicle branches whorled at lower nodes. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 3–5 mm long, 1 mm wide, breaking up at maturity, rachilla persistent, retaining paleas, fragile above, with the distal florets disarticulating separately.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.6–1.5 mm long, 1 length of upper glume, hyaline or membranous, grey, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.6–1.5 mm long, 0.5–0.7 length of adjacent fertile lemma, hyaline or membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic or obovate, 1.1–1.5 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex truncate or obtuse. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.6–0.9 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.5–0.6 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. **Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa.** Ethiopia (inc. Eritrea). Kenya. Angola, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Free State, Northern Cape, Western Cape.

Eragrostis potamophila M. Lazarides. *Austral. Syst. Bot.*, 10(1): 143 (1997).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Western Australia, Kalumburu Mission: *Lazarides 4941* (CANB holo, BRI, K, PERTH).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (379, Fig 68), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 173, Fig.3 (1997)).

Derivation (Clifford & Bostock 2007): Gk. potamos, river; philos, love. Grows on river banks and shingle beds.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Cataphylls evident. Butt sheaths glossy, glabrous. Culms 60–90 cm long, 5-noded. Culm-internodes eglandular, ridged. Leaf-sheaths tight, eglandular, glabrous on surface. Leaf-sheath oral hairs scanty, 2–3.5 mm long. Ligule a fringe of hairs, 0.1–0.2 mm long. Leaf-blades curled, flat or involute or convolute, 15–35 cm long, 4–9 mm wide. Leaf-blade surface scabrous, rough adaxially, glabrous, hairless throughout or except near base. Leaf-blade margins cartilaginous, eglandular, scabrous.

Inflorescence. Inflorescence a panicle. Peduncle eglandular. Panicle open, ovate, loose or effuse, 20–36.5 cm long, 5–12 cm wide. Primary panicle branches spreading or drooping, 7–15 cm long. Panicle axis eglandular. Panicle branches flexible, eglandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 2–20 mm long, eglandular.

Fertile Spikelets. Spikelets comprising 9–55 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 4.2–25 mm long, 1–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes thickened, zig-zag, 0.5–0.6 mm long, obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.5–1.3 mm long, 0.5–0.75 length of upper glume, membranous, without keels or 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex acute or acuminate. Upper glume lanceolate, 1–1.8 mm long, 0.8–0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex acute or acuminate.

Florets. Fertile lemma elliptic or ovate, 1.3–1.7 mm long, membranous, keeled, 3-veined, 0–3-veined. Lemma lateral veins close to margins. Lemma surface smooth or granulose. Lemma apex obtuse. Palea oblong or oblanceolate, with flaps narrower than body, 1 length of lemma, hyaline, 2-veined. Palea keels thickened, scaberulous. Palea apex emarginate or obtuse, glabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers (2–)3, 0.3–0.5 mm long. Caryopsis with adherent pericarp or tardily free pericarp, oblong, isodiametric, 0.5–0.7 mm long, red.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory. Kimberley. Darwin & Gulf.

Eragrostis pringlei Mattei. *Contrib. Biol. Veg., ed. Borzi*, iv. 241 (1909).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mexico. **Basionym or Replaced Name:** *Eragrostis pusilla* Scribn. ex Beal, *Grass. N. Amer.* 2: 481 (Nov 1896)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *C.G. Pringle 2327*, 28 Oct 1889, Mexico: Jalisco: dry rocky hills near Guadalajara (MSC; IT: LL, MO-2524105, US-1761637, US-748411, US-822031).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Cyrus Guernsey Pringle (1838–1911) United States botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms 10–25 cm long. Leaf-sheaths hirsute, with tubercle-based hairs. Ligule a fringe of hairs. Leaf-blades 1.5–5 cm long, 1–4 mm wide. Leaf-blade surface hirsute, hairy on both sides.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or oblong, 5–10 cm long, 0.5–2.5 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, glandular.

Fertile Spikelets. Spikelets comprising 2–3(–5) fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 1.7–2.3 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.75 length of upper glume, membranous, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.8–1.1 mm long, 0.75–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1–1.4 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, orbicular, isodiametric (globose), 0.5 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. Mexico. Northeast Mexico, Northwest Mexico, Southwest Mexico.

TDWG4. Chihuahua, Durango, Zacatecas. Sonora. Jalisco, Michoacan.

Eragrostis procumbens Nees. *Fl. Afr. Austr.* 386. (1841).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: CT: *Dege*, Cap. b. sp. (LE). Herb. Seidlitz & Herb.Fischer.

ST: *Drige s.n.*, In planitie regionalis Camdeboo

ST: *Mundt et Maire s.n.*, Promontorio bonae spei, pluribus non adnotatis (Herb. Reg. Berol.).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (1407159, Fig 108&127).

Derivation (Clifford & Bostock 2007): *L. procumbo*, fall down. Culms creeping.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending or decumbent, 10–45 cm long. Leaf-sheaths eglandular or glandular. Ligule a fringe of hairs. Leaf-blades 2–10 cm long, 1–2 mm wide. Leaf-blade margins glandular.

Inflorescence. Inflorescence a panicle. Panicle contracted, lanceolate or oblong, 3–10 cm long. Primary panicle branches bearing spikelets almost to the base. Panicle branches glandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong, glandular.

Fertile Spikelets. Spikelets comprising 12–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 6–7 mm long, 2–2.5 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.5–2 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5–2 mm long, 0.8–0.9 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.7–2.5 mm long, membranous, yellow or grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.2–0.3 mm long. Caryopsis with adherent pericarp, oblong, 0.7–0.9 mm long, dark brown (light).

Distribution (TDWG). Continent. Europe (*), Africa.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **South tropical Africa, Southern Africa.** Zimbabwe. Namibia, Mpumalanga, Free State, Northern Cape, Western Cape.

Eragrostis prolifera (Sw.) Steud. *Syn. Pl. Gram.* 177. (1854).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Carribean. **Basionym or Replaced Name:** *Poa prolifera* Sw., *Prodr.* 27 (1788)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Swartz s.n.*, Guadeloupe (S (photo, K); IT: K).

Illustrations (Books): N.Feinbrun-Dothan, *Flora Palaestina* 4 (1986) (Pl. 374), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (100), S.A.Renvoize, *The Grasses of Bahia*, 1984 (67, Fig. 24), W.Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (215, Fig 72).

Derivation (Clifford & Bostock 2007): *L. proles*, offspring; *fero*, bear. Producing runners.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms geniculately ascending, 60–150 cm long. Lateral branches fastigiate. Leaves cauline. Ligule a fringe of hairs. Leaf-blades convolute, 5–20 cm long, 1–3 mm wide, coriaceous, stiff. Leaf-blade apex filiform.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, dense, 7–17 cm long. Primary panicle branches spreading, 1–4 cm long, bearing spikelets almost to the base. Panicle branches stiff. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 8–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 4–15 mm long, 1.5–2 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.2 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1–1.2 mm long, 0.7–0.8 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets free at tip. Fertile lemma ovate, 1.3–1.7 mm long, membranous, mid-green or dark brown, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.6–0.8 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.6–0.7 mm long.

Distribution (TDWG). Continent. Africa, North America, South America.

Country /Province /State. Macaronesia, West-central tropical Africa, South tropical Africa. Cape Verde. DRC. Angola. **Southeastern USA, Mexico.** Florida. Gulf (Mexico), Northwest Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica, Caribbean, Northern South America, Western South America, Brazil.** Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama. Aruba, Cuba, Leeward Is, Trinidad-Tobago, Venezuelan and Netherlands Antilles. Venezuela. Colombia, Ecuador, Galapagos, Peru. Brazil Northeast.

TDWG4. Veracruz. Sinaloa. Colima, Guerrero, Jalisco, Nayarit, Oaxaca. Campeche, Chiapas, Quintana Roo, Tabasco, Yucatan.

Eragrostis propinqua Steud. *Syn. Pl. Gram.* 271 (1854).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Mauritius. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Mauritius: D'Urville (P holotype).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, culms solitary or caespitose. Rhizomes absent or elongated. Culms erect, slender, 10–35 cm long. Leaves basal and cauline. Leaf-sheaths striately veined, glabrous on surface. Ligule a fringe of hairs. Leaf-blades flat or involute, 2–6 cm long, 1–2 mm wide. Leaf-blade surface scaberulous, rough adaxially. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear, 5–11 cm long, contracted about primary branches. Primary panicle branches appressed or ascending, indistinct the panicle almost racemose or simple, 1–3 cm long. Spikelets solitary or in pairs. Fertile spikelets sessile and pedicelled. Pedicels present, 1–10 mm long.

Fertile Spikelets. Spikelets comprising 8–24 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–11 mm long, breaking up at maturity, rachilla persistent, shedding paleas. Rachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.25–1.5 mm long, 0.75 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5–2 mm long, 0.5–0.66 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume apex acute.

Florets. Fertile lemma elliptic or ovate, 1.8–2 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea 1–1.25 mm long. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.5 mm long. Caryopsis with adherent pericarp, oblong, 1 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Mauritius.

TDWG4.

Eragrostis psammophila S.M. Phillips. *Kew Bull.*, 46(1): 114 (1991).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Somalia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Somalia: Galgadud Region: 30 km on the Dusa Mareb to Galkayo road, c. 5.45N 46.32E, 250 m, *Thulin & Warfa 5363* (HT: K; IT: UPS).

Illustrations (Books): T.A.Cope, in M.Thulin, *Poaceae* (Gramineae). *Flora of Somalia* (1995) (183, Fig 95).

Derivation (Clifford & Bostock 2007): Growing in sandy places.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms geniculately ascending, 9–17 cm long. Leaf-sheaths pilose, with tubercle-based hairs. Ligule a fringe of hairs. Leaf-blades 2–5 cm long, 1–1.5 mm wide. Leaf-blade surface glabrous or pilose, hairy abaxially. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 5–9 cm long. Primary panicle branches 1–2 -nate. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–4 mm long, scabrous.

Fertile Spikelets. Spikelets comprising 6–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–6 mm long, 1.5–1.8 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume oblong, 0.9–1.1 mm long, 0.75 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.2–1.5 mm long, 0.75 length of adjacent fertile lemma, 1-keeled, 1–3 -veined. Upper glume lateral veins absent or distinct. Upper glume apex acute.

Florets. Fertile lemma oblong, 1.5–1.8 mm long, chartaceous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex emarginate or truncate. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.25–0.3 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.5 mm long, light brown.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa. Somalia.

Eragrostis pseudopoa C. E. Hubbard. *Kew Bull.* 115. (1934).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Tanzania. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Tanganyika Territory: Iringa Province, Ifunda, 1800 m., Nov 1928, *Haarer 1659* ; Tanzania, (K holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. pseudos, false. Resembling *Poa*..

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Culms erect, 50 cm long. Ligule a fringe of hairs. Leaf-blades 5–10 cm long, 1.5–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 7–11 cm long. Primary panicle branches reflexed. Panicle branches flexuous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 4–12 mm long.

Fertile Spikelets. Spikelets comprising 5–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 6–9 mm long, 4–6 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 4–5 mm long, 1 length of upper glume, 1-keeled, 1–3 -veined. Lower glume apex acute. Upper glume lanceolate, 4–5 mm long, 1 length of adjacent fertile lemma, 1-keeled, 1–3 -veined. Upper glume apex acute.

Florets. Fertile lemma elliptic or ovate, 4–5 mm long, membranous, purple, keeled, 3 -veined, 0–3 -veined. Lemma apex truncate or obtuse. Palea keels smooth. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 2.5 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa. Tanzania. Mpumalanga.

Eragrostis pubescens (R.Br.) Steud. *Syn. Pl. Gram.* 279 (1854).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Poa pubescens* R. Br., *Prodr.* 181 (1812). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: T: *R. Brown 6272*, 1802–1805, Australia: "Iter australiense".

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (256).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. pubesco*, become hairy. Plant whole or in part hairy.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms 40–80 cm long, wiry. Leaf-sheaths 12 cm long, glabrous on surface. Ligule a fringe of hairs. Leaf-blades involute, 7–15 cm long, 2–3 mm wide. Leaf-blade margins ciliate. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate, 5–20 cm long, bearing few spikelets, contracted about primary branches. Primary panicle branches 2–6 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 7–15 mm long, 1.8–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.4 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.8 mm long, 0.8–0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.9–2.2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma surface hispidulous. Lemma apex acute. Palea 1.6 mm long. Palea keels scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 2 mm long. Caryopsis with adherent pericarp, 5 mm long.

Distribution (TDWG), Continent. Tropical Asia, Australasia.

Country /Province /State. **Indo-China, Malasia, Papuasia.** Thailand. New Guinea. **Australia.** Western Australia, Northern Territory, Queensland, New South Wales.

Kimberley. Darwin & Gulf. North, Central, South East, Inland. Coast.

Eragrostis punctiglandulosa Cope. *Kew Bull.* 53:143 (1998).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Zambia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Zambia: Namwala Distr.: along the Kafue Road 1.6 km N of Loubwe [Lubwe], 16 Oct 1963, *van Rensburg 2543* (HT: K; IT: SRGH).

Illustrations (Journals): *Kew Bulletin* (53: 142, Fig.3 (1998)).

Derivation (Clifford & Bostock 2007): *L. punctus*, point; *glans*, gland; *-ulus*, diminutive; *-osa*, abundance. Lemma nerves with abundant small glands.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual or perennial, short-lived. Butt sheaths glabrous. Glands sunken crateriform. Culms erect, 40–80 cm long. Culm-internodes eglandular or glandular. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheaths eglandular or glandular, without keel, glabrous on surface. Ligule a fringe of hairs. Leaf-blades flat or conduplicate, 8–15 cm long, 1.5–2.5 mm wide, eglandular. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, effuse, 18–22 cm long. Panicle branches flexuous, eglandular, glabrous in axils or bearded in axils, with insignificant pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–2 mm long.

Fertile Spikelets. Spikelets comprising 6–16 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 6.5–9.5 mm long, 1.3 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 0.5–1.5 mm long, 0.33–0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5–2 mm long, 0.33 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla. Fertile lemma ovate, dorsally straight along back, 1.4–1.8 mm long, membranous, grey, glandular on veins, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma surface scabrous, rough above. Lemma apex acute or apiculate. Palea 2 -veined. Palea keels scabrous or tuberculate (glandular). Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.5–1.2 mm long. Caryopsis with adherent pericarp, ellipsoid or oblong, 1 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Zambia.

Eragrostis purpurascens (Spreng.) Roem. & Schult. *Syst. ii. Mant.* 317. (1824).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

Basionym or Replaced Name: *Poa purpurascens* Spreng., *Novi Provent.* 33–34 (1819)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: T: Cultivated from material collected in Uruguay.

Illustrations (Books): L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (239, Fig 166 as *E. megapotamica*), B.Rosengurt, *Gramineas Uruguayas I* (1970).

Derivation (Clifford & Bostock 2007): *L. purpurascens*, become purple. Inflorescences reddish-purple.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 35–60 cm long. Lateral branches sparse or ample. Leaf-sheaths without keel, glabrous on surface. Ligule a fringe of hairs, 0.4 mm long. Leaf-blades involute, 15–30 cm long, 1 mm wide. Leaf-blade surface glabrous. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate or ovate, 15–25 cm long, 10–15 cm wide, bearing few spikelets. Primary panicle branches spreading, 1–2 -nate, sparsely divided, 8–12 cm long. Panicle branches flexuous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 2–4 mm long.

Fertile Spikelets. Spikelets comprising 4–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 4–7 mm long, 1–1.2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1–1.2 mm long, 0.75–0.85 length of upper glume, hyaline, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 1.4 mm long, 0.75 length of adjacent fertile lemma, hyaline, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.6–2 mm long, membranous, without keel, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea 1 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ellipsoid, 1 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Caribbean, Brazil, Southern South America. Leeward Is. Brazil South. Uruguay.

Catarina, Rio Grande do Sul.

Eragrostis pusilla Hack. *Bull. Herb. Boiss.* iv. App. III. 27. (1896).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. **Basionym or Replaced Name:** *Diandrochloa pusilla* (Hack.) de Winter, *Bothalia*, 7: 388 (1961). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Fleck 321*, May 1891, South Africa: Kalahari, in stagnis exsiccatis prope Uugua (W; IT: PRE (fragm.)).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (182, Fig 157).

Derivation (Clifford & Bostock 2007): *L. very small*. Plants of small stature.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 10–42 cm long. Ligule an eciliate membrane. Leaf-blades 5–15 cm long, 2–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 8–15 cm long. Primary panicle branches spreading. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets oblong, laterally compressed, 1–1.5 mm long, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.2–0.3 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume ovate, 0.4 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile lemma oblong, 0.5–0.6 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins ribbed. Lemma apex obtuse. Palea keels eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2, 0.3–0.4 mm long. Caryopsis with adherent pericarp, obovoid. Embryo 0.4 length of caryopsis.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa. Angola, Mozambique. Namibia, Botswana, Limpopo, North-West.

Eragrostis pycnantha (Phil.) Parodi ex E. Nicora. *Gayana, Bot.*, 51(1): 4 (1994).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Chile. **Basionym or Replaced Name:** *Poa pycnantha* Phil., *Anales Univ. Chile* 94: 165 (1896). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *F. Philippi s.n.*, Sep 1885, Chile: prope Copiapi (SGO-PHIL-411; IT: B, BAA-1079 (fragm. ex B), US- (photo only SGO-PHIL-411), W).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. pyknos, thick; anthos, flower. Spikelets relatively broad.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 15–25 cm long. Culm-internodes distally pilose. Leaf-sheaths pilose. Ligule a fringe of hairs, 1 mm long. Leaf-blades convolute, 1.5–5 cm long, 1 mm wide, stiff. Leaf-blade surface hirsute.

Inflorescence. Inflorescence a panicle. Panicle spiciform, linear, interrupted, 6–10 cm long, 0.5–1 cm wide. Panicle axis pubescent. Panicle branches pilose. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 3–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, laterally compressed, 3.5–6.5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes similar, shorter than spikelet. Lower glume ovate, 1.2–1.6 mm long, 0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume margins ciliate. Lower glume apex acute. Upper glume ovate, 1.4–2.1 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume margins ciliate. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.8–2.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma surface scabrous. Lemma margins ciliate, hairy below. Lemma apex obtuse. Palea keels scabrous, ciliate, adorned below, with hairs 0.3–0.4 mm long. Palea surface scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.3–0.4 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.8–0.9 mm long, dark brown, reticulate. Embryo 0.33–0.5 length of caryopsis.

Distribution (TDWG). Continent. South America.

Country /Province /State. Southern South America. Chile North. Atacama.

Eragrostis pycnostachys W.D. Clayton. *Kew Bull.* 25(2): 253 (1971).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Kenya. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *A.B. Bogdan 3026*, 3 Jun 1951, Kenya: Nairobi Area (K; IT: US-2947008).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. pyknos, thick; stachys, ear of corn.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 100 cm long, wiry. Ligule a fringe of hairs. Leaf-blades 10–25 cm long, 2–4 mm wide. Leaf-blade apex attenuate, filiform.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate, 20–25 cm long, contracted about primary branches or with spikelets clumped along branches. Primary panicle branches ascending or spreading, distant (below), simple (secund and raceme-like), 3–5 cm long, bearing spikelets almost to the base. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong, ciliate, hairy below.

Fertile Spikelets. Spikelets comprising 5–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–6 mm long, 1.2–1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, tough throughout or fragile above, with the distal florets disarticulating separately.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate or ovate, 1.2–2 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate or ovate, 1.2–2 mm long, 0.7–0.9 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.7–2.2 mm long, membranous, pallid, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.4 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.7 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa. Kenya.

Eragrostis pygmaea De Winter. *Bothalia*, x. 72 (1969).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Namibia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Giess 8706*, Namibia: Cape Cross.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. dwarf. Culms shorter than those of many other species in the genus.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 4–7 cm long, 1–3 -noded. Culm-internodes distally pilose. Lateral branches lacking. Leaf-sheaths pilose, with tubercle-based hairs or capitate hairs. Ligule a fringe of hairs. Leaf-blades 1–2 cm long, 1–3 mm wide. Leaf-blade surface scaberulous, rough on both sides, pilose, hairy abaxially, with tubercle-based hairs or capitate hairs.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear or lanceolate, 2–4 cm long, 1–1.5 cm wide. Primary panicle branches appressed to spreading, bearing spikelets almost to the base. Panicle axis scaberulous. Panicle branches glandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 5–16 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–7 mm long, 1–1.25 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.75 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1–1.25 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5 mm long, 1 mm wide, membranous, pallid or mid-green, keeled, 3 -veined, 0–3 -veined. Lemma midvein scabrous. Lemma lateral veins prominent. Lemma apex acute. Palea 0.6 length of lemma. Palea keels scabrous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, oblong, 0.2 mm long, purple. Caryopsis with adherent pericarp, orbicular, light brown. Embryo 0.9 length of caryopsis. Hilum punctiform.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Namibia.

Eragrostis racemosa (Thunb.) Steud. *Syn. Pl. Gram.* 1:271 (1854).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. **Basionym or Replaced Name:** *Poa racemosa* Thunb., *Prodr. Pl. Cap.* 21 (1794). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Thunberg s.n.*, South Africa: Cape (UPS).

Illustrations (Books): R.M.Pohill, F.T.E.A., *Gramineae* (2(1974):196, Fig.62), G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):125, t. 40), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (165, Fig 135).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): *L. racemus*, stalk of a cluster of grapes; -osa, abundance. The spikelets are borne in racemes or contracted panicles.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous or pubescent, persistent and investing base of culm, with compacted dead sheaths or fibrous dead sheaths. Culms erect, 9–80 cm long. Leaves mostly basal. Ligule a fringe of hairs. Leaf-blades flat or involute, 6–10(–30) cm long, 2–5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, ovate, 2–14 cm long, contracted about secondary branches or with spikelets clumped along branches. Panicle branches stiff. Spikelets spreading, solitary. Fertile spikelets pedicelled. Pedicels present, oblong, 1–2 mm long.

Fertile Spikelets. Spikelets comprising 6–16(–40) fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate or orbicular, laterally compressed, 3–10(–15) mm long, 1.5–4.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.2–2.8 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.2–2.8 mm long, 0.7–0.8 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets imbricate to tip. Fertile lemma ovate or orbicular, 1.7–2.8 mm long, chartaceous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.7–1.3 mm long. Caryopsis with adherent pericarp, oblong, 0.5–0.7 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean. Burundi, Congo, Rwanda, DRC. Sudan. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Lesotho, Western Cape, Eastern Cape. Madagascar, Seychelles.

Eragrostis raynaliana Lebrun. *Adansonia*, n. s., ix. 567 (1970).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Cameroon. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *J. Raynal & A. Raynal 11918*, Cameroon (P; IT: K, YA).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. -ana*, indicating connection. In honor of Aline Marie Roques Raynal (1933-) French botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 40–60 cm long, 1–2 mm diam., 1–2 -noded. Culm-nodes black. Ligule a fringe of hairs. Leaf-blades 20–30 cm long, 1–2 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, 15–20 cm long, 4–5 cm wide. Panicle branches flexuous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 3–6 mm long, glabrous.

Fertile Spikelets. Spikelets comprising 5–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4 mm long, 2–3 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 3 mm long, 1.4 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 2.2 mm long, membranous, purple, keeled, 3 -veined, 0–3 -veined. Lemma surface pilose. Lemma apex acute. Palea keels smooth, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1 mm long. Caryopsis with adherent pericarp.
Distribution (TDWG). Continent. Africa.
Country /Province /State. West-central tropical Africa. Central African Republic.

Eragrostis refracta (Muhl.) Scribn. *Mem. Torrey Bot. Club*, v. 49 (1894).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Poa refracta* Muhl. ex Elliott, *Sketch Bot. S. Carolina* 1(2): 162 (1816)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *S. Elliott s.n.*, USA: South Carolina (CHARL; IT: PH, US-2767400 (fragm.)).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (98), F.W.Gould, *The Grasses of Texas* (1975) (189, Fig. 95).

Derivation (Clifford & Bostock 2007): L. curved back abruptly. Mostly applied to species whose mature inflorescence branches curve back.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 35–80 cm long. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs. Leaf-blades 10–25 cm long, 2–5 mm wide. Leaf-blade surface glabrous, hairless except near base.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 30–60 cm long, 25–40 cm wide. Primary panicle branches spreading or reflexed, simple, 10–20 cm long. Panicle branches capillary, straight, bearing distant spikelets, scabrous, bearded in axils. Spikelets appressed, solitary. Fertile spikelets sessile. Pedicels present.

Fertile Spikelets. Spikelets comprising 10–28 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 5–16 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume ovate, 0.8–1 mm long, 0.5–0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 1.4–1.8 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 1.4–2.2 mm long, 0.8–1.2 mm wide, membranous, mid-green or purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute or acuminate. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ellipsoid, 0.6 mm long.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. South-central USA, Southeastern USA. Texas. Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Virginia. **Northern South America.** Surinam.

Eragrostis rejuvenescens Rendle. *Cat. Welw. Afr. Pl.* ii. 250. (1899).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Angola. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Huilla: in short thicket - grown pastures, near Mumpulla, *Welwitsch 2661* ; Angola.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. rejuvenesco, able to rejuvenate. Recovering readily after fire.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Butt sheaths woolly, persistent and investing base of culm, with compacted dead sheaths. Culms slender, 6–20 cm long. Ligule a fringe of hairs. Leaf-blades filiform, convolute, 1–5 cm long, 0.5 mm wide, stiff. Leaf-blade apex pungent.

Inflorescence. Inflorescence a panicle. Panicle open, ovate or globose, 3–5 cm long. Panicle branches secund. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, glandular.

Fertile Spikelets. Spikelets comprising 6–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 3 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume surface pilose. Lower glume apex acuminate. Upper glume ovate, 1.5 mm long, 1 length of adjacent fertile lemma,

membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume surface pilose. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 1.5–1.8 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma surface pilose. Lemma apex acute. Palea keels eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, South tropical Africa. Congo, DRC. Angola, Zambia.

Eragrostis remotiflora De Winter. *Bothalia*, vii. 477 (1961).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: South Africa, Bethulie: Acocks 13521 (PRE holo, B. BM, BOL K, M).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. remotus*, distant; flos, flower. Spikelets with widely separated florets.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual or perennial, short-lived. Culms erect or geniculately ascending or decumbent, 10–55 cm long, 1–4 -noded. Leaf-sheaths glandular, keeled. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs. Leaf-blades flat or convolute, 8–17 cm long, 2–3 mm wide, flaccid. Leaf-blade midrib prominent beneath. Leaf-blade surface scaberulous, rough adaxially. Leaf-blade margins glandular. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle, embraced at base by subtending leaf. Panicle open, ovate, 5–20 cm long, 3–14 cm wide. Primary panicle branches ascending or spreading, 1–2 -nate, whorled at lower nodes. Panicle branches eglandular or glandular, glabrous in axils or bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 5 mm long, 1 mm wide, breaking up at maturity, rachilla persistent, shedding paleas. Rachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.5 mm long, 0.25–0.33 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rachilla, overlapping 0–0.1 their length. Fertile lemma ovate, 1–1.8 mm long, membranous, dark green or grey, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels smooth or scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.3–0.4 mm long. Caryopsis with adherent pericarp, oblong, sulcate on hilar side. Embryo 0.66 length of caryopsis. Hilum punctiform.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Limpopo, North-West, Mpumalanga, Free State, Northern Cape, Eastern Cape.

Eragrostis reptans (Michx.) Nees. *Agrost. Bras.* 514. (1829).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Poa reptans* Michx., *Fl. Bor.-Amer.* 1: 69–70, pl. 11 (1803)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Michaux s.n.*, USA: riviere Kaskaskia in limosis ripariis hujus amnii (P; ITS:US-2767401 (fragm.)). pistillate plant.

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (75), F.W.Gould, *The Grasses of Texas* (1975) (202, Fig. 104 as *Neeragrostis reptans*).

Illustrations (Journals): *Sida* (21: 1391, Fig.9D-G (2005)).

Derivation (Clifford & Bostock 2007): *L. repo*, crawl. Culms ascending from a creeping rhizome or runner.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, mat forming. Culms prostrate, 5–10(–20) cm long, wiry. Ligule a fringe of hairs. Leaf-blades 1–4 cm long, 1–2 mm wide. Dioecious.

Inflorescence. Inflorescence a panicle. Peduncle glabrous or pubescent above. Panicle capitate, ovate, 1–2 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, linear or oblong, 0.5–1.5 mm long.

Fertile Spikelets. Spikelets comprising 16–40(–60) fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, straight or curved, laterally compressed, 8–20(–25) mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume ovate, 0.33–0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume surface glabrous or pilose. Lower glume apex acute. Upper glume ovate, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume surface glabrous or pilose. Upper glume apex acute.

Florets. Fertile florets female. Fertile lemma ovate, 2.6–3.3 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma surface glabrous or pilose. Lemma apex acuminate. Palea 0.5 length of lemma, 2 -veined. Palea keels scabrous.

Flower and Fruit. Anthers 3, 1.5–2 mm long. Caryopsis with adherent pericarp, ovoid, isodiametric, biconvex, 0.5 mm long. Embryo 0.33–0.5 length of caryopsis.

Male inflorescence similar to female, a panicle. Male spikelets resembling female.

Distribution (TDWG). Continent. North America.

Country /Province /State. North-central USA, Northeast USA, South-central USA, Southeastern USA, Mexico. Illinois, Iowa, Kansas, Missouri, Nebraska, Oklahoma, South Dakota. Texas. Arkansas, Florida, Kentucky, Louisiana, Tennessee. Northeast Mexico, Gulf (Mexico), Southeast Mexico. Coahuila. Veracruz. Tabasco.

Eragrostis retinens Hackel & Arech. *Arech. Gramin. Urug.* 445 (1896).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Uruguay. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *Archavaleta* 93, Apr 1888, Uruguay: Montevideo: Carrasco (? (photo, LP); BAA-1083 (fragm.)).

Illustrations (Books): A.Burkat, *Flora Ilustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (195, Fig 69), A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (344, Fig. 89), B.Rosengurt, *Gramineas Uruguayas I* (1970).

Derivation (Clifford & Bostock 2007): L. retineo, detain.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Basal innovations extravaginal. Culms 20–60 cm long. Leaf-sheaths glabrous on surface or pilose. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades involute, 4–15 cm long, 2–4 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 10–30 cm long, 8–20 cm wide. Primary panicle branches not whorled. Panicle branches viscid, glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, scabrous.

Fertile Spikelets. Spikelets comprising 3–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 1.7–3.5 mm long, 1–1.7 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.8–1.5 mm long, 0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 0.9–1.6 mm long, 0.66–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5 mm long, membranous, purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex obtuse. Palea 1 length of lemma. Palea keels ciliolate, with hairs 0.2–0.3 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.3–0.4 mm long. Caryopsis with adherent pericarp, ovoid, 0.7–0.8 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil, Southern South America. Brazil South. Argentina Northeast, Uruguay.

TDWG4. San Luis. Buenos Aires, Cordoba, Entre Rios, La Pampa.

Eragrostis rigidior Pilger. *Engl. Jahrb.* 48: 347 (1912).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *Dinter 1532*, Okahandja ST: *Dinter 1635*, Okahandja ST: *Dinter 1821*, Waterberg.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (148, Fig 115), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (159, Fig 92).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Angola.

Eragrostis rigidiuscula Domin. *Biblioth. Bot.* 1 v. 393 (1915).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Nord-Australien: Port Darwin, *F. Schultz 802*.

Illustrations (Books): No illustration found (BKS).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. rigidius*, stiffer; -ula, diminutive. Leaf-blades tending to be held erect.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms 60–100 cm long. Leaves cauline. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades 20–30 cm long, 1–4 mm wide. Leaf-blade surface glabrous. Leaf-blade apex attenuate, filiform.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate or ovate, 6–20 cm long. Primary panicle branches simple or sparsely divided, bearing spikelets almost to the base. Panicle branches stiff. Spikelets spreading, solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–9 mm long, 1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.7–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 0.66 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins obscure. Lemma apex acute. Palea 0.66 length of lemma. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland. Kimberley. Darwin & Gulf. North.

Eragrostis riobrancensis E.J. Judziewicz & P.M. Peterson. *Brittonia*, 42(1): 47 (1990).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Guyana. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *P.M. Peterson & D. Gopaul 7545*, 20 Jun 1989, Guyana: Rupununi Distr.: 3–11 km S of Sand Creek on road to Dadanawa, E of Rupununi River, ca. 02.03:N 59.30:W, elev. 110 m, grassland with scattered small trees (US-3055106; IT: BRG).

Illustrations (Books): E.Judziewicz, *Flora of the Guianas*, 187. *Poaceae* (1990) (209, Fig 35).

Derivation (Clifford & Bostock 2007): *L. -ensis*, denoting origin. From Rio Branco, Territory of Roraima, Brazil.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms geniculately ascending, 30–70 cm long. Lateral branches lacking. Ligule a ciliate membrane, 0.2–0.3 mm long. Leaf-blades persistent or deciduous at the ligule, flat or involute, 4–8 cm long, 1–2.5 mm wide. Leaf-blade surface glabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle, exerted or embraced at base by subtending leaf. Panicle open, ovate, 7–11 cm long, 3–6 cm wide. Primary panicle branches 3–5 in number, ascending, 1–3.5 cm long. Panicle branches scaberulous, glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 7–17 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 5.5–14 mm long, 1.5–2.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, tough throughout or fragile above.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.5–1.5 mm long, 0.3–0.6 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.8–2.5 mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic, 2.2–3 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea bowed outwards, 1.5–2 mm long. Palea keels winged, narrowly winged, scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2, 0.2–0.35 mm long, purple. Caryopsis with adherent pericarp, ellipsoid, 0.7–0.8 mm long.

Cleistogenes present, in upper sheaths.

Distribution (TDWG). Continent. South America.

Country /Province /State. Northern South America, Brazil. Guyana. Brazil North.

Eragrostis riparia (Willd.) Nees. *Agrost. Bras.* 512 (1829).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)*, N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from India. **Basionym or Replaced Name:** *Poa riparia* Willd., *Ges. Naturf. Freunde Berlin Neue Schriften* 4: 185 (1803)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: India, Madras: *Rottler s.n.* in Herb. Willdenow 1940/2 (holotype B n.v.).

Illustrations (Books): K.M.Mathew, *Further Illustrations on the Flora of Tamilnadu Carnatic* (1988) (pl.780).

Derivation (Clifford & Bostock 2007): *L. ripa*, river bank; -aria, pertaining to. Growing on river banks.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual or perennial, short-lived. Culms erect or geniculately ascending, 15–40 cm long. Culm-internodes smooth or scaberulous. Culm-nodes glabrous. Lateral branches ample. Leaf-sheaths striately veined, smooth or scaberulous, glabrous on surface or pilose, with tubercle-based hairs, outer margin hairy. Leaf-sheath oral hairs bearded, 3–4 mm long. Ligule a fringe of hairs, 0.3 mm long. Leaf-blades flat or convolute, 3–7 cm long, 2–5 mm wide, stiff. Leaf-blade surface scaberulous, glabrous, hairless throughout or except near base. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Peduncle smooth. Panicle spiciform, oblong, 2–7 cm long, 0.25–0.75 cm wide. Primary panicle branches 0.5–2 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–2.75 mm long.

Fertile Spikelets. Spikelets comprising 5–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–4 mm long, 1–1.75 mm wide, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret. Rhachilla internodes 0.3 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1 mm long, 0.75 length of upper glume, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex obtuse or acute. Upper glume ovate, 1.3–1.5 mm long, 1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex obtuse or acute.

Florets. Fertile lemma ovate, 1.25–1.5 mm long, chartaceous, keeled, 3 -veined, 0–3 -veined. Lemma midvein without distinctive roughness or scaberulous. Lemma surface smooth or scaberulous. Lemma apex obtuse. Palea 1–1.3 mm long. Palea keels scaberulous, ciliate, with hairs 0.2 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, ovoid or orbicular, 0.5 mm long, dark brown. Embryo 0.5 length of caryopsis, projecting below grain.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent, Indo-China, Malesia, Papuasias. Assam, India, Sri Lanka. Myanmar, Thailand. Philippines. New Guinea.

TDWG4. Sikkim, Karnataka, Kerala, Maharashtra, Orissa, Tamilnadu, Uttah Pradesh, West Bengal.

Eragrostis rogersii C. E. Hubbard. *C. E. Hubbard in Kew Bull.* 1934, 115 (1934).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Zimbabwe. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Northern Rhodesia: Livingstone, in sand, *Rogers 7027*.

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):57, t. 24).

Derivation (Clifford & Bostock 2007): in honor of Frederick Arundel Rogers (1876–1944) English cleric and botanist who collected widely in Africa and Iran.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Butt sheaths glabrous. Culms geniculately ascending, 20–40 cm long, without nodal roots or rooting from lower nodes. Ligule a fringe of hairs. Leaf-blades 4–9 cm long, 2–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, 7–14 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 6–12 mm long, 2.5–4.2 mm wide, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 2.5 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 3 mm long, 0.8–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 3.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex obtuse or acute, muticous or mucronate. Palea keels scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1.1 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa. Angola, Zambia, Zimbabwe, Botswana.

Eragrostis rojasii Hack. *Fedde, Repert. Nov. Sp.* vii. 373 (1909).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Paraguay. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *T. Rojas hbr. Hassler 9858*, Dec 1908, Paraguay: in alta planitie et declivibus Sierra de Amambay (W; IT: BAA-1085 (fragm.), BAF, G, US-899326, US-79718).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Teodoro Rojas (1877–1954) Paraguayan botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Basal innovations intravaginal. Culms erect, 40–65 cm long, 1–4 -noded. Leaves mostly basal. Leaf-sheaths 5–20 cm long, longer than adjacent culm internode, hirsute. Ligule a fringe of hairs, 0.2–0.5 mm long. Leaf-blades flat or involute, 10–30 cm long, 1.5–3 mm wide. Leaf-blade surface scabrous, glabrous, hairless except near base. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle, embraced at base by subtending leaf. Panicle open, obovate, 20–50 cm long. Primary panicle branches appressed or ascending, 10–20 cm long. Panicle branches capillary, scabrous, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, scabrous.

Fertile Spikelets. Spikelets comprising 3–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or lanceolate, laterally compressed, 4–8 mm long, 1.2–3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 2.5–4 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 2.7–4 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 3.1–4.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scabrous. Lemma lateral veins obscure. Lemma apex acute. Palea keels scabrous, adorned above. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.6–0.8 mm long. Caryopsis with adherent pericarp, ovoid, sulcate on hilar side, 1–1.1 mm long, light brown, reticulate.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil, Southern South America. Brazil West Central, Brazil South. Paraguay.

TDWG4. Corrientes, Misiones.

Eragrostis rotifer Rendle. *Cat. Welw. Afr. Pl.* ii. 242. (1899).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Angola. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Welwitsch 7284*, Barra de Bengo, by ponds between Quicuxe and Cucuaco

ST: *Welwitsch 7341*, Angola

ST: *Welwitsch 7341b*, Angola.

Illustrations (Books): R.M.Pohill, F.T.E.A., *Gramineae* (2(1974):193, Fig.61), G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):57, t. 24), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (140, Fig 108), M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. rota, wheel; fero, bear. Lower nodes of inflorescence bear dense whorls of branches.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths pubescent. Culms erect, 60–150 cm long. Ligule a fringe of hairs. Leaf-blades flat or convolute, 15–30 cm long, 3–4 mm wide, stiff, glaucous.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate or ovate, 25–35 cm long. Primary panicle branches whorled at most nodes. Panicle branches pubescent in axils or bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 7–16 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 4–10 mm long, 1 mm wide, breaking up at maturity, rachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.2–1.5 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume ovate, 1.2–1.5 mm long, 1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile lemma ovate, not gibbous, elliptic in profile, 1.1–1.5 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex obtuse or acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.5–0.8 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.7 mm long.

Distribution (TDWG). Continent. Europe (*), Africa.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **East tropical Africa, South tropical Africa, Southern Africa.** Tanzania. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Kwazulu-Natal, Northern Cape, Western Cape.

Eragrostis rottleri Stapf. *Hook. f. Fl. Brit. Ind.* vii. 321. (1896).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: The Carnatio: at Tranquebar, *Heyne, Rottler & Wight s.n.*

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Johan Peter Rottler (1749–1836) French-born Indian cleric and botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, 30–70 cm long. Ligule a fringe of hairs. Leaf-blades flat or convolute, 3–18 cm long, 1–4 mm wide. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, 6–10 cm long. Primary panicle branches 1–2-nate, not whorled. Panicle branches eglandular, glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, eglandular.

Fertile Spikelets. Spikelets comprising 4–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–6 mm long, 1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1 mm long, membranous, without keels, 1-veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1–1.5 mm long, 0.9–1 length of adjacent fertile lemma, membranous, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent. Fertile lemma ovate, 1.2–1.5 mm long, membranous, keeled, 3-veined, 0–3-veined. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.2–0.3 mm long. Caryopsis with adherent pericarp, ellipsoid, laterally compressed, 0.4–0.5 mm long.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent. India.

TDWG4. Tamilnadu.

Eragrostis rufescens Schult. *Syst. Mant.* ii. 3191 (1824).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Maximilian Neowidens s.n.*, Brazil (LE).

Illustrations (Books): S.A.Renvoize, *The Grasses of Bahia*, 1984 (67, Fig. 24).

Derivation (Clifford & Bostock 2007): *L. refresco*, grow reddish. Spikelets or inflorescence reddish-brown.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 5–30 cm long. Ligule a fringe of hairs. Leaf-blades 7–24 cm long, 1–4 mm wide. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, lanceolate or oblong, 3–20 cm long, contracted about primary branches. Primary panicle branches appressed or ascending. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 8–40 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–20 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.8 length of upper glume, membranous, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.2–1.5 mm long, membranous, keeled, 3-veined, 0–3-veined. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, orbicular, 0.5 mm long.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. Mexico. Gulf (Mexico), Southeast Mexico. **Mesoamerica, Western South America, Brazil.** Belize, Costa Rica, Guatemala, Honduras, Nicaragua. Bolivia. Brazil West Central, Brazil Northeast, Brazil Southeast, Brazil North.

TDWG4. Roraima, Amazonas, Acre, Rondonia, Mato Grosso, Goias, Bahia, Maranhao, Piaui, Minas Gerais, Rio de Janeiro, Espirito Santo, Sao Paulo Parana. Veracruz. Chiapas, Tabasco.

Eragrostis rufinerva L.C. Chia. *Fl. Hainan.* 4: 378, 539, f. 1185. 1977.

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Hainan: Ding'an, open grasslands, Oct. 1954, *H.L. Liang 68016* (HT: SCBI).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 664).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Distribution (TDWG). Continent. Temperate Asia.
Country /Province /State. China. Hainan.

Eragrostis sabinae Launert. *Prodr. Fl. Sudwestafri.*, 160. , 225, 112 (1970).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Sdwestafrika: Etoscha, vley vor Okandeka, 27 Mar 1963, S. Bleissner 58 (HT: M; IT: BM).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): In honor of Sabine Ludtke nee Bleissner (1943-) who collected in southern Africa.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Rhizomes short. Stolons present. Butt sheaths pubescent. Culms erect or geniculately ascending, 9–17 cm long, 1–2 -noded, without nodal roots or rooting from lower nodes. Culm-internodes glaucous. Culm-nodes bearded. Lateral branches lacking. Leaves mostly basal. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs. Leaf-blades curved, filiform, involute, 0.5–4.5 cm long, 1–1.5 mm wide, glaucous. Leaf-blade apex obtuse.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 2.5–6 cm long, 1–2.7 cm wide, with spikelets clustered towards branch tips. Primary panicle branches 1 -nate. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 9–14 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 4–7 mm long, 0.8–1 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets disarticulating separately.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.2–1.5 mm long, 0.8–0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5–1.7 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic, 1.6 mm long, membranous, dark green or grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex entire or erose, obtuse. Palea keels approximate, ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.4–0.8 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Namibia.

Eragrostis sabulicola Pilger ex Jedw. *Bot. Archiv*, v. 214 (1924).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Africa Occ. trop., Promonturium Lopez, *Schlechter 12817*.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. sabulum*, coarse sand; -cola, dweller. Growing in damp, sandy places.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms 25–40 cm long. Lateral branches fastigiate. Leaves distichous. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs. Leaf-blades involute, 10–20 cm long, 3–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, 10–15 cm long, 2–3 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–10 mm long, 2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.5 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5 mm long, 0.75 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent, free at tip. Fertile lemma ovate, 2 mm long, membranous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma midvein scabrous. Lemma apex obtuse. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa. Gabon, DRC.

Eragrostis sabulosa (Steud.) Schweickerdt. *Fedde, Repert.* xliii. 91 (1938).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. **Basionym or Replaced Name:** *Calotheca sabulosa* Steud., *Flora*, 12 (2) 488 (1829). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *Ecklon 944*, South Africa: Cape (P).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (161, Fig 129).

Derivation (Clifford & Bostock 2007): *L. sabulum*, coarse sand; -osa, abundance. Growing in sandy soils.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes elongated. Culms 6–15 cm long. Lateral branches ample. Leaves cauline, distichous. Leaf-sheaths longer than adjacent culm internode. Ligule a fringe of hairs. Leaf-blades flat or involute, 1–4 cm long, 2–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle contracted, lanceolate or ovate, 1–4 cm long, contracted about primary branches. Primary panicle branches appressed. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–7 mm long, 1.5–2 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.5–1 mm long, 0.33 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex erose, obtuse or acute. Upper glume ovate, 1.5–1.7 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.6–2.5 mm long, membranous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex obtuse. Palea keels ciliolate, with hairs 0.05–0.1 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1.2 mm long. Caryopsis with adherent pericarp, ellipsoid, 1 mm long, dark brown. Embryo 0.4 length of caryopsis.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Western Cape.

Eragrostis sambiranensis A. Camus. *Bull. Soc. Bot. France*, 100: 354 (1953).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Madagascar. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Madagascar, Sambirano: Decary 2161.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms decumbent, 30–100 cm long, 2.5 mm diam., woody (at base). Leaf-sheaths mostly shorter than adjacent culm internode, without keel. Ligule absent. Leaf-blades flat or involute, 10–17 cm long, 1–3 mm wide. Leaf-blade surface glabrous or pilose, sparsely hairy, hairy adaxially. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 18–25 cm long, 3–4 cm wide. Primary panicle branches 1 -nate, 8–12 cm long. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 10–25 mm long.

Fertile Spikelets. Spikelets comprising 4–6(–9) fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–6 mm long, 3.2–3.5 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes 0.9–1 mm long, eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume oblong, 1.5 mm long, 0.66 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume

oblong, 2.5 mm long, 0.75 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma oblong, 3–3.2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea 2.5–2.7 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, ovoid, 0.9 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

TDWG4.

Eragrostis santapau K.G. Bhat & C.R. Nagendran. *Reinwardtia*, 10(2): 127 (1985).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from India. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: India, Mercara: Bhat 749a (CAL holo, K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Hermenegild Santapau (1903–1970) Spanish-born Indian cleric and botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms 6–20 cm long. Culm-nodes glabrous. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades 5–9 cm long, 1–3 mm wide. Leaf-blade surface pilose, hairy adaxially. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle. Peduncle glabrous. Panicle open, ovate, 10–20 cm long. Primary panicle branches spreading, 1 -nate, 1–3 cm long. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 10–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 5–10 mm long, 2–2.8 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.2–1.7 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.6–1.8 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 2 mm long, membranous, light green or grey, eglandular, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute. Palea oblong or obovate. Palea keels scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.3 mm long. Caryopsis with adherent pericarp, oblong or orbicular, dorsally compressed, 0.6–0.8 mm long.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent. India.

TDWG4. Karnataka.

Eragrostis saresberiensis Launert. *Bol. Soc. Brot., Ser. 2*, v. 22 (1961).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Zimbabwe. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Zimbabwe, Salisbury: Brain 5008 (K iso).

Illustrations (Books): R.M.Polhill, F.T.E.A., *Gramineae* (2(1974):196, Fig.62), G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):56, t. 23).

Derivation (Clifford & Bostock 2007): L. *-ensis*, denoting origin. Latinized form of Salisbury, now Harare, Zimbabwe.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous. Basal innovations subterete. Culms erect, 30–90 cm long. Ligule a fringe of hairs. Leaf-blades involute or flat, 8–20 cm long, 1–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 7–25 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets linear, laterally compressed, 5–11 mm long, 1 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.3–0.8 mm long, 0.3–0.5 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1–1.7 mm long, 0.5–0.6 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla, free at tip. Fertile lemma elliptic or ovate, lanceolate in profile, 2–2.6 mm long, membranous, purple or yellow, tipped with last colour, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels smooth. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1–1.8 mm long. Caryopsis with adherent pericarp, oblong, laterally compressed, 1 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa, South tropical Africa. Tanzania. Zambia, Zimbabwe.

Eragrostis sarmentosa (Thunb.) Trin. *Mem. Acad. Petersb. Ser. VI. i.* 398. (1830).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

Basionym or Replaced Name: *Poa sarmentosa* Thunb., *Prodr. Pl. Cap.* 21 (1794)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Promontorio Bonae Spei Africes, *C.P. Thunberg s.n.*

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):58, t. 25), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (161, Fig 129), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (159, Fig 54), N.Feinbrun-Dothan, *Flora Palaestina* 4 (1986) (Pl. 373), L.Boulos, *Flora of Egypt* 4 (2005) (257, Pl. 76).

Derivation (Clifford & Bostock 2007): *L. sarmentum*, small branch; -osa, abundance. Culms much branched.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, mat forming. Rhizomes short. Stolons present. Culms decumbent, 15–40 cm long, rooting from lower nodes. Leaves cauline. Ligule a fringe of hairs. Leaf-blades 5–10 cm long, 2–4.5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear, 2.5–10 cm long. Primary panicle branches appressed. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 3–7 mm long, 1.5–1.7 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets disarticulating separately.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.2 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.2 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.4 mm long, membranous, grey or purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Palea keels scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.3–0.4 mm long. Caryopsis with adherent pericarp, ellipsoid or ovoid, 0.6 mm long. Embryo 0.4 length of caryopsis.

N = 20 (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa, Temperate Asia.

Country /Province /State. Northern Africa, South tropical Africa, Southern Africa, Western Indian ocean. Egypt (*). Angola, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, Mpumalanga, Free State, Kwazulu-Natal, Northern Cape, Western Cape. Madagascar. **Western Asia.** Palestine, Israel & Jordan (*).

Eragrostis saxatilis Hemsl. *Bot. Voy. Challenger, i.* II. 90. (1884).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from St Helena Is. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Burchell 50.5*, St. Helena: from off lot

ST: *Burchell 50*, St. Helena: among dry rocks by Major Dentaaffe's in Sandy Bay

ST: *Melliss s.n.*, St. Helena: growing in tufts on the rocky, barren hills near Lot's Wife on the south-west side of the island.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. saxum, rock; -atilis, place of growth. Dwelling among rocks.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms erect, 20–40 cm long. Ligule a fringe of hairs. Leaf-blades filiform, involute, 20–40 cm long, 0.5–1 mm wide, stiff. Leaf-blade apex hardened.

Inflorescence. Inflorescence a panicle, aerial or shorter than basal leaves. Panicle open, linear, 8–16 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–6 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 1.5–2.5 mm long, 0.75 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 2.5–3.5 mm long, 1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent. Fertile lemma ovate, 2.5–3.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Middle Atlantic ocean. Ascension, St Helena.

Eragrostis scabriflora Swallen. *Journ. Wash. Acad. Sc.* xxvi. 179. (1936).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, W.D.Clayton & N.Snow, Key to Pacific Grasses (2010).

TYPE from Fiji. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *E.H. Bryan* 528, 30 Aug 1924, Fiji: Aiwa (BISH; IT: US-1607908).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. scaber, rough; flos, flower. Spikelets with scabrous glumes and/or lemmas.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 20–60 cm long, wiry. Lateral branches lacking or sparse, arising from mid culm. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs, 0.3 mm long. Leaf-blades flat or conduplicate, 5–15 cm long, 1–2 mm wide. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence a panicle, terminal and axillary. Panicle open, lanceolate, 3–15 cm long, contracted about primary branches. Primary panicle branches appressed, 1 -nate, simple, 1–2 cm long, bearing spikelets almost to the base. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–2 mm long.

Fertile Spikelets. Spikelets comprising 6–18 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–8 mm long, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma surface scaberulous. Lemma apex acute. Palea keels ciliolate, adorned above. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Pacific.

Country /Province /State. Southwestern Pacific, Northwestern Pacific. Fiji, New Caledonia, Vanuatu, Wallis-Futuna Is.

Eragrostis scaligera Steud. *Syn. Pl. Gram.* 277 (1854).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *P. Salzmann s.n.*, no date, Brazil: Bahia: in *sabulosis maritimis* (P; IT: US-911752).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (102).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 25–75 cm long. Leaves mostly basal. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs, 0.2 mm long. Leaf-blades persistent or deciduous at the ligule, flat or involute, 4–8 cm long, 1–2 mm wide. Leaf-blade surface glabrous or pilose, hairy adaxially. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle, terminal and axillary. Axillary inflorescences enclosed. Peduncle 5–15 cm long. Panicle open, ovate, 12–18 cm long. Primary panicle branches 3–5 in number, ascending, 1-nate, sparsely divided, 6–10 cm long, bearing 4–11 fertile spikelets on each lower branch. Panicle branches scaberulous, glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 9–19 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 6–15 mm long, 2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.4–1.9 mm long, 0.8 length of upper glume, membranous, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.7–2.3 mm long, 0.8–0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2–2.5 mm long, membranous, grey or purple, keeled, 3-veined, 0–3-veined. Lemma apex acute or acuminate. Palea keels smooth. Palea surface pubescent, hairy on flanks. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2, 0.35–0.7 mm long. Caryopsis with adherent pericarp, orbicular, isodiametric, 0.5–0.6 mm long, smooth.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. **Southeastern USA.** Florida. **Northern South America, Brazil.** French Guiana. Brazil West Central, Brazil Northeast, Brazil North.

TDWG4. Bahia.

Eragrostis schultzei Benth. *Fl. Austral.* vii. 646. (1878).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia: Port Darwin, *Schultz 81*.

Illustrations (Books): No illustration found (BKS).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): in honor of Frederick Schultze (fl. 1869) who collected in northern Australia.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 50–90 cm long. Ligule a fringe of hairs. Leaf-blades 10–20 cm long, 3–6 mm wide. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle glomerate, linear, 10–25 cm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 12–25 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 5–10 mm long, 1–1.2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5 mm long, membranous, keeled, 3-veined, 0–3-veined. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. **Australia.** Western Australia, Northern Territory, Queensland. Kimberley. Darwin & Gulf, Central Australia. North, Central.

Eragrostis schweinfurthii Chiov. *Ann. Ist. Bot. Roma*, viii. 368 (1908).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Eritrea. **Basionym or Replaced Name:** *Eragrostis kiwuensis* Jedwabnick, *Bot. Archiv.*, 5: 206 (1924). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IST: *A. Pappi 1675*, 2 Sep 1902, Eritrea: Oculé Cusai, bosco dell'Assare presso Halai, 2600 m (MO-1602881).

ST: *Pappi 1961*, 30 Sep 1902, Eritrea: Oculé Cusai, bosco dell'Assare presso Halai, 2600 m (FT).

ST: *Pappi 1245*, 23 Aug 1902, Eritrea: gruppo dei monti Soyra, mt. Mamahot verso il torrente Arigot, 2800–3000 m.

Illustrations (Books): R.M.Phill, F.T.E.A., *Gramineae* (2(1974):196, Fig.62 as *E. kiwuensis*), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (115, Fig 48), K.M.Matthew, *Flora Palni Hills* (1996) (825 & 827, Pl 825 & 827 as *E. kiwuensis*).

Derivation (Clifford & Bostock 2007): in honor of Georg August Schweinfurth (1836–1925) German botanist and anthropologist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual or perennial, short-lived, caespitose. Culms erect or decumbent, 10–50 cm long, wiry, without nodal roots or rooting from lower nodes. Ligule a fringe of hairs. Leaf-blades 1–10 cm long, 1–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open or spiciform, linear or elliptic or ovate, 2–16 cm long. Primary panicle branches appressed or spreading. Panicle branches stiff. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–2 mm long.

Fertile Spikelets. Spikelets comprising 5–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 2.5–10 mm long, 1.3–2 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.8–1.2 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.8–1.2 mm long, 0.6–0.7 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets imbricate to tip. Fertile lemma ovate, 1.3–1.7 mm long, cartilaginous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2, 0.2–0.6 mm long. Caryopsis with adherent pericarp, ellipsoid or orbicular, 0.5–0.6 mm long.

Distribution (TDWG). Continent. Europe (*), Africa, Temperate Asia, Tropical Asia.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **West-central tropical Africa, Northeast tropical Africa, East tropical Africa.** Rwanda, DRC. Eritrea, Ethiopia (inc. Eritrea). Kenya, Tanzania, Uganda. **Arabian Peninsula.** Yemen. **Indian Subcontinent, Indo-China.** Sri Lanka.

Eragrostis sclerantha Nees. *Fl. Afr. Austr.* 388. (1841).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: *Drige*, (LE). Herb. Seidlitz.

CT: *Drige s.n.*, Cap. b. sp. [Caput bonae spei] [S.Africa] (LE). Herb. Fischer.

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):58, t. 25), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (140&166, Fig 108&136).

Derivation (Clifford & Bostock 2007): Gk. skleros, hard; anthos, flower. Lemmas cartilagenous.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths woolly, with white hairs. Culms erect, 20–100 cm long. Ligule a fringe of hairs. Leaf-blades 15–25 cm long, 2–6 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, 7–35 cm long, evenly furnished or contracted about primary branches. Panicle branches stiff. Spikelets spreading or appressed, solitary. Fertile spikelets pedicelled. Pedicels present, oblong, 0.5–2 mm long.

Fertile Spikelets. Spikelets comprising 6–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 2–8 mm long, 1.5–2 mm wide, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.8–1.5 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.8–1.5 mm long, 0.5–0.8 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets imbricate to tip. Fertile lemma ovate, 1.6–1.7 mm long, chartaceous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.7–1 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.6 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, East tropical Africa, South tropical Africa, Southern Africa. DRC. Tanzania. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Limpopo, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Lesotho.

***Eragrostis sclerophylla* Trin. Mem. Acad. Petersb. Ser. VI. i. 412. (1831).**

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *L. Riedel* 1275, Dec. 1824, Brazil: ad rivulum Jequitinhonha (LE-TRIN; IT: LE (3 sheets), US-2765426 (fragm.), US-79719 (fragm.)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. skleros, hard; phyllon, leaf.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Butt sheaths persistent and investing base of culm, with fibrous dead sheaths. Culms 50–110 cm long. Ligule a fringe of hairs. Leaf-blades 10–25 cm long, 4–8 mm wide, coriaceous, stiff.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 20–30 cm long. Primary panicle branches ascending. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 6–7 mm long, 2.5–4 mm wide, breaking up at maturity, rachilla persistent, shedding paleas. Rachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2–2.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels smooth. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1.3 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil. Brazil Southeast. Minas Gerais, Rio de Janeiro, Espirito Santo.

***Eragrostis scopelophila* Pilger. Engl. Jahrb. li. 421 (1914).**

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: T: *Dinter* 2564, Wilhelmsberg.

Illustrations (Books): M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984).

Derivation (Clifford & Bostock 2007): Gk. skopelos, lookout place; phileo, love. Growing on rocky outcrops.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous. Glands sunken crateriform, or annular. Culms decumbent, 50–100 cm long, wiry. Lateral branches suffrutescent. Leaves cauline. Leaf-sheaths glandular. Ligule a fringe of hairs. Leaf-blades 12–25 cm long, 2–5 mm wide, glandular.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 6–12 cm long, 4–9 cm wide. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, glandular.

Fertile Spikelets. Spikelets comprising 4–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate or orbicular, laterally compressed, 3–10 mm long, 2.2–3.3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets disarticulating separately. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.5 mm long, 1 length of upper glume, membranous, eglandular or glandular, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5 mm long, 0.75 length of adjacent fertile lemma, membranous, eglandular or glandular, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2 mm long, membranous, mid-green or dark green, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Palea keels scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1.3–1.5 mm long. Caryopsis with adherent pericarp, oblong or orbicular, 0.5–0.7 mm long. Embryo 0.5 length of caryopsis.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Namibia.

Eragrostis scotelliana Rendle. *Journ. Linn. Soc., Bot.* . 99 . (1894).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Sierra Leone. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Elliott 4114*, Sierra Leone (K; IT: BM).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ana, indicating connection. In honor of G.F. Scott Elliott (fl. 1893) British administrator in West Africa.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms geniculately ascending, 15–60 cm long. Ligule a fringe of hairs. Leaf-blades flat or convolute, 2–18 cm long, 1–7 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, 4–20 cm long. Panicle branches glandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, glandular.

Fertile Spikelets. Spikelets comprising 5–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 3–8 mm long, 2.5–3.5 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.5–2 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume surface pilose. Lower glume apex acute. Upper glume ovate, 1.5–2 mm long, 0.8 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume surface pilose. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.8–2.5 mm long, membranous, glandular on veins, keeled, 3 -veined, 0–3 -veined. Lemma margins pilose. Lemma apex obtuse or acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.7–0.8 mm long. Caryopsis with adherent pericarp, oblong, 0.7 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, West-central tropical Africa. Ivory Coast, Nigeria, Sierra Leone, Central African Republic, Cameroon, DRC.

Eragrostis secundiflora J. & C. Presl. *Rel. Haenk.* i. 276 (1830).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mexico. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *T. Haenke s.n.*, Mexico (PR (photo, K); IT: LE, MO-123764, US-79720 (fragm. ex PR)).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (as subsp. *oxylepis*), F.W.Gould, *The Grasses of Texas* (1975) (190, Fig. 96), S.A.Renvoize, *The Grasses of Bahia*, 1984 (71, Fig. 25).

Illustrations (Journals): *Sida* (21: 1384, Fig.6D-E (2005) as subsp. *oxylepis*).

Derivation (Clifford & Bostock 2007): *L. secundus*, turned to one side; flos, flower. Spikelets restricted to one side of inflorescence branches.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–75 cm long. Leaf-sheaths outer margin glabrous or hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades flat or involute, 10–15 cm long, 2–2.5 mm wide. Leaf-blade surface glabrous, hairless except near base. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, linear to elliptic, dense, 5–30 cm long, 1–15 cm wide, with spikelets clumped along branches. Primary panicle branches appressed or ascending, 1–14 cm long. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–1 mm long.

Fertile Spikelets. Spikelets comprising 10–24 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 6–20 mm long, 3–5 mm wide, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 2.5–3 mm long, 0.7–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 3–4 mm long, 1.5–2 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile florets recurved at tip. Fertile lemma ovate, 1.6–2.4 mm long, 1.2 mm wide, membranous, red, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Palea keels thickened, ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ellipsoid, 1 mm long.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. Northwest USA, North-central USA, Southwestern USA, South-central USA, Southeastern USA, Mexico. Colorado. Kansas, Nebraska, Oklahoma. New Mexico, Texas. Florida, Georgia, Louisiana, Mississippi, South Carolina. Northeast Mexico, Southeast Mexico. Mesoamerica, Northern South America, Western South America, Brazil. Guyana, Venezuela. Bolivia, Colombia, Peru. Brazil West Central, Brazil Northeast, Brazil Southeast, Brazil North.

TDWG4. Mato Grosso, Goias, Bahia, Maranhao, Piaui, Ceara, Rio Grande do Norte, Paraiba, Pernambuco, Alagoas, Sergipe, Sao Paulo Parana. Coahuila. Chiapas.

Eragrostis seminuda Trin. *Mem. Acad. Petersb. Ser. VI. i. 406.* (1831).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Riedel 1641*, Dec. 24, Brazil: Sao Paulo: in arenosis pr. Parauna ad rivuli Jacare (LE; IT: K).

IT: *Riedel 1641*, Brazil: Sao Paulo in arenosis Taubati (US-77384 (fragm. ex LE)).

Illustrations (Books): S.A.Renvoize, *The Grasses of Bahia*, 1984 (71, Fig. 25).

Derivation (Clifford & Bostock 2007): *L. semi-*, half; *nuda*, bare. Only part of the plant bearing hairs.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Basal innovations extravaginal. Culms erect, 15–50 cm long, 1–2 -noded. Leaf-sheaths 2–15 cm long, hirsute. Ligule a fringe of hairs, 0.1–0.3 mm long. Leaf-blades flat or involute, 5–20 cm long, 1–3 mm wide. Leaf-blade surface hirsute, hairy on both sides. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, ovate or obovate, 10–30 cm long. Primary panicle branches spreading, whorled at lower nodes, 10–16 cm long. Panicle axis scabrous, with scattered hairs or glabrous. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, scabrous.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 1.7–3.8 mm long, 1.2–1.7 mm wide, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret. Rhachilla internodes pilose, hairy at tip.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.1–1.5 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.7–2.2 mm long, 0.9 length of adjacent

fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2–2.5 mm long, membranous, mid-green or grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma margins ciliate, hairy in the middle. Lemma hairs 0.5–1 mm long. Lemma apex acuminate. Palea keels scabrous, adorned below. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.3–0.5 mm long. Caryopsis with adherent pericarp, ovoid, sulcate on hilar side, 0.5–1 mm long, dark brown, reticulate.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil, Southern South America. Brazil West Central, Brazil Northeast, Brazil Southeast, Brazil South. Paraguay.

TDWG4. Bahia, Minas Gerais, Rio de Janeiro, Espirito Santo, Sao Paulo Parana. Corrientes, Misiones.

Eragrostis sennii Chiov. *Fl. Somalia*, II. 460 (1932).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Somalia. **Basionym or Replaced Name:** *Eragrostis abrumpens* Kabuye, *Kew Bull.*, 28(3): 530 (1973). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Oltregiura: Mangab, Jan-Jul 1929, *Dr. L. Senni* 239.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): In honor of Lorenzo Senni (1879–1954) Italian botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 20 cm long. Ligule a fringe of hairs. Leaf-blades convolute, 8–15 cm long, 2–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, linear, 5–6 cm long. Primary panicle branches indistinct the panicle almost racemose. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 9–32 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 8–18 mm long, 4 mm wide, falling entire.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 5 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 4 mm long, 1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets recurved at tip. Fertile lemma ovate, 4 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acuminate. Palea 2 -veined. Palea keels thickened, winged, narrowly winged. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2, 0.5 mm long. Caryopsis with adherent pericarp, ovoid, 1.2 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa, East tropical Africa. Ethiopia (inc. Eritrea), Somalia. Kenya.

Eragrostis sericata Cope. *Kew Bull.* 53:163 (1998).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Mozambique. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Mozambique: Mauele [Mawayela]. 100 m, Sep 1936, *Gomes e Sousa 1868* (HT: K; IT: COI).

Illustrations (Journals): *Kew Bulletin* (161, fig.7 (1998)).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Butt sheaths papery, without ribs, villous. Culms erect, 50–95 cm long. Culm-internodes eglandular. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheaths longer than adjacent culm internode, eglandular, without keel, hirsute. Ligule a fringe of hairs. Leaf-blades flat or involute, 10–20 cm long, 2–3.5 mm wide, eglandular. Leaf-blade surface glabrous or pilose, sparsely hairy.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 12–15 cm long. Panicle branches eglandular, glabrous in axils, with insignificant pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 2–5 mm long, eglandular.

Fertile Spikelets. Spikelets comprising 11–13 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets elliptic or ovate, laterally compressed, 7–8 mm long, 4–4.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 1.5 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 2 mm long, 0.5 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent. Fertile lemma elliptic or ovate, 2.7–3 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea 2 -veined. Palea keels pubescent. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1.2 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Mozambique.

Eragrostis sessilispica Buckl. *Proc. Acad. Sc. Philad.* 1862: 97 (1863).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Acamptocladus sessilispicus* (Buckley) Nash, Small, *Fl. S. E. U.S.* 140 (1903). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: LT: *Buckley s.n.*, USA: Texas: near Austin (PH). LT designated by Hitchcock, *Man. Grass. U.S.* 852 (1935), but without citing a specific sheet in a specific herbarium.

Recent Synonyms: *Acamptocladus sessilispicus* (Buckley) Nash, Small, *Fl. S. E. U.S.* 140 (1903). *Eragrostis rigida* (Vasey) Scribn., *Proc. Acad. Philad.* 304 (1891).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (104), F.W.Gould, *The Grasses of Texas* (1975) (181, Fig. 91).

Illustrations (Journals): *Sida* (21: 1411, Fig.13A-C (2005)).

Derivation (Clifford & Bostock 2007): *L. sessilis*, sessile; *spica*, thorn. Spikelets sessile or very shortly stalked.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–90 cm long, 1 -noded. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades flat or involute, 10–30 cm long, 1–3 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle, deciduous as a whole. Panicle open, ovate, 25–65 cm long, 10–25 cm wide, 0.5 of culm length, contracted about primary branches. Primary panicle branches spreading, distant, simple, 3–30 cm long, bearing spikelets almost to the base. Panicle branches stiff, bearing distant spikelets, scabrous, bearded in axils. Spikelets solitary. Fertile spikelets sessile. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or oblanceolate, laterally compressed, 5–12.5 mm long, 2–3 mm wide, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret (tardily). Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume ovate, 2–6 mm long, 0.66–1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 3–6 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 3–5 mm long, 2–4 mm wide, cartilaginous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acuminate. Palea bowed outwards, cartilaginous. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ellipsoid, 1.25 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. North-central USA, South-central USA, Mexico. Kansas, Oklahoma. New Mexico, Texas. Northeast Mexico.

Chihuahua, Tamaulipas.

Eragrostis setifolia Nees. *Hook. Lond. Journ. Bot.* ii. 419 (1843).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia: In Novae Hollandiae interioribus, *Major Mitchell's Exped.* 59.

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (380, Fig 313), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (123, Pl 35), J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (1161, Fig. 330), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler,, *Grasses of New South Wales*, 4th edn (2008) (256), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (171, Fig. 26), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (362, Fig 65), D.Sharp & B.K.Simon, *AusGrass. Grasses of Australia*. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 174, Fig.4 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass. Grasses of Australia*. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): L. seta, bristle; folium, leaf. Leaf-blades bristle-like.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Cataphylls evident. Rhizomes absent or short. Butt sheaths glabrous or sparsely hairy. Culms 22–45 cm long, wiry, 3–6 -noded. Lateral branches lacking. Leaf-sheaths smooth, glabrous on surface. Ligule a fringe of hairs. Leaf-blades erect or ascending, flat or involute, 4–13 cm long, 1–2 mm wide, stiff. Leaf-blade surface scabrous, rough adaxially. Leaf-blade margins cartilaginous, scabrous.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, linear or lanceolate or ovate, 7–10 cm long, 1.2–2.5 cm wide. Primary panicle branches 1.5 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 10–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 10–20 mm long, 1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume oblong, 0.7–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume oblong, 0.7–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma lanceolate or ovate, 1.25–1.75 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, oblong or ovoid, 0.9 mm long.

Distribution (TDWG). Continent. Australasia, North America.

Country /Province /State. **Australia.** Western Australia, Northern Territory, South Australia, Queensland, New South Wales, Victoria. **Southeastern USA.** South Carolina.

Kimberley, Eremaean, South-West. Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre, Southern. North, Central, Inland. Coast, Western Slopes, Western Plains.

Eragrostis setulifera Pilger. *Notizbl. Bot. Gart. Berlin*, xi. 805 (1933).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

T:<Type of Basionym>; *fide* TROPICOS and Kew Synonymy Database: Tanganyika Territory: Bez: Mahenge: Schauri, *H.J. Schlieben* 2318.

Illustrations (Books): R.M.Polhill, F.T.E.A., *Gramineae* (2(1974):190, Fig.60).

Derivation (Clifford & Bostock 2007): L. seta, bristle; -ula, diminutive; fero, bear. Lemma apex apiculate.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 25–60 cm long. Ligule a fringe of hairs. Leaf-blades 4–17 cm long, 3–8 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, linear or oblong, effuse, 6–30 cm long. Primary panicle branches ascending (at 45 degrees). Panicle branches stiff, eglandular or glandular, viscid or without exudate. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, eglandular or glandular.

Fertile Spikelets. Spikelets comprising 6–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 2–3.5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.5 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex attenuate, mucronate. Upper glume ovate, 1.5 mm long, 1.2–1.3 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume apex attenuate, mucronate.

Florets. Fertile lemma elliptic or oblong, 1.2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins excurrent or extending close to apex. Lemma apex truncate, mucronate. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.7 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.6 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa, South tropical Africa. Tanzania. Zambia.

Eragrostis silveana Swallen. *Am. Journ. Bot.* xix. 438. (1932).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *W.A. Silveus 360*, 1–31 Oct 1931, USA: Texas: Bexar Co. (US-1501596; IT: US-1501597, US-1501598, US-1501599, US-1501600).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (92).

Illustrations (Journals): *Sida* (21: 1380, Fig.3C-D (2005)).

Derivation (Clifford & Bostock 2007): *L. -ana*, indicating connection. In honor of William Arents Silveus (1875-) United States botanist and attorney.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short, knotty. Glands elongated. Culms erect or geniculately ascending, 45–60 cm long. Culm-internodes glandular. Leaf-sheaths viscid, outer margin hairy. Ligule a fringe of hairs. Leaf-blades flat or involute, 8–25 cm long, 2–4 mm wide, without exudate or viscid. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 20–30 cm long, 10–15 cm wide. Primary panicle branches ascending or spreading, 6–12 cm long. Panicle branches capillary, viscid, scabrous, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 3.5–5 mm long, 1 mm wide, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1 mm long, 1 length of upper glume, chartaceous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1–1.2 mm long, 0.7–0.8 length of adjacent fertile lemma, chartaceous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.4 mm long, 1 mm wide, chartaceous, purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ellipsoid, 0.6 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. South-central USA, Mexico. Texas. Northeast Mexico.

Coahuila, San Luis Potosi, Tamaulipas.

Eragrostis simpliciflora (Presl) Steud. *Syn. Pl. Gram.* 278 (1854).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mexico. **Basionym or Replaced Name:** *Megastachya simpliciflora* J. & C. Presl, *Rel. Haenk.* 1: 283 (1830). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *T. Haenke s.n.*, Mexico (P; IT: US-80149 (fragm.)).

Illustrations (Books): W.Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (218, Fig 74).

Derivation (Clifford & Bostock 2007): inflorescence of few florets.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending or decumbent, 10–30 cm long, 0.7–1 mm diam. Culm-internodes distally glabrous. Lateral branches ample. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs ciliate, 2–4 mm long. Ligule a fringe of hairs, 0.1 mm long. Leaf-blades involute, 7–15 cm long, 2–4 mm wide. Leaf-blade surface ribbed, scaberulous, rough adaxially, pilose, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence a panicle, terminal or terminal and axillary. Panicle open, ovate or pyramidal, 4–8 cm long. Primary panicle branches ascending or spreading, 2–4 cm long. Panicle branches stiff, glabrous in axils. Spikelets solitary. Fertile spikelets sessile or pedicelled. Pedicels present, 0.2–0.5 mm long.

Fertile Spikelets. Spikelets comprising 12–24 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 9–24 mm long, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.6–2 mm long, 0.7–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 2.1–2.5 mm long, 0.6–0.7 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 3.4–3.8 mm long, membranous, keeled, 3(–5) -veined, 0–3 -veined or more than 3-veined. Lemma midvein scabrous. Lemma surface scaberulous. Lemma apex acuminate. Palea bowed outwards, 0.66 length of lemma. Palea keels contiguous above a sulcus, scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.3 mm long, purple. Caryopsis with adherent pericarp, ovoid, 0.8–1 mm long.

$2n = 40$ (1 ref TROPICOS).

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. Mexico. Southeast Mexico. **Mesoamerica.** Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama.
Chiapas.

Eragrostis singuaensis Pilger. *Bot. Jahrb. Syst.* 45: 211 (1910).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Basal innovations intravaginal. Culms erect, slender, 50–60 cm long, 2 -noded. Culm-internodes distally glabrous. Leaf-sheaths mostly shorter than adjacent culm internode. Ligule a fringe of hairs. Leaf-blades involute, 1–2 mm wide. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear or lanceolate, 4–8 cm long. Primary panicle branches appressed, 2 -nate. Panicle branches flexuous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 4 mm long, 2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1 mm long, 0.66 length of upper glume, 1-keeled, 1 -veined. Lower glume apex obtuse. Upper glume ovate, 1.5 mm long, 0.75 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume apex obtuse.

Florets. Fertile lemma elliptic, 2 mm long, membranous, dark green, keeled. Lemma apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3. Caryopsis ellipsoid.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa. Cameroon.

Eragrostis solida Nees. *Agrost. Bras.* 501 (1829).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *F. Sellow*, Brasilia (LE (ex B)).

ST: *F.K.P. von Martius s.n.*, Brazil: Minas Gerais: in altis Pascuis inter Gasper Soares et Tapanhoacanga (B; IT: BAA-1094 (fragm. ex B), M, US-2767404 (fragm.)).

Illustrations (Books): S.A.Renvoize, *Gramineas de Bolivia* (1998) (318, Fig 67), S.A.Renvoize, *The Grasses of Bahia*, 1984 (71, Fig. 25).

Derivation (Clifford & Bostock 2007): L. solid. Culms solid.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 25–90 cm long. Ligule a fringe of hairs. Leaf-blades 12–30 cm long, 3–6 mm wide, stiff. Leaf-blade apex acuminate, pungent.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, linear or oblong or ovate, 8–35 cm long, contracted about primary branches. Panicle branches stiff. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 10–22 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 5–15 mm long, 2.5–3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above. Rhachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma oblong or ovate, 2.5–3 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Brazil, Southern South America. Bolivia. Brazil West Central, Brazil Northeast, Brazil Southeast. Paraguay.

TDWG4. Mato Grosso, Goias, Bahia, Minas Gerais, Rio de Janeiro, Espirito Santo, Sao Paulo Parana. Corrientes.

Eragrostis soratensis Jedwabnick. *Bot. Archiv*, v. 213 (1924).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Bolivia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ILT: *G. Mandon 1331*, Feb 1858, Bolivia: La Paz: vicinis Sorata, colle Ticacirca (BAA-1095 (ex B), US-1126604). LT designated by Hitchcock, *Contr. U.S. Natl. Herb.* 24(8): 343 (1927).

ST: *Pflanz 366*, Bolivia: La Paz prope Huancapampa.

Illustrations (Books): S.A.Renouze, *Gramineas de Bolivia* (1998) (Fig. 64).

Illustrations (Journals): *Ann. Missouri Bot. Gard.* (94: 785 fig 21 (2007)).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From Sorata, Bolivia.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 15–30 cm long. Leaf-sheaths outer margin hairy. Ligule a fringe of hairs. Leaf-blades flat or involute, 2–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 15–20 cm long. Primary panicle branches 1–2 -nate, bearing spikelets almost to the base. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 3.5 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, with lower narrower than upper, shorter than spikelet. Lower glume lanceolate, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.7–1.8 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America. Bolivia, Peru.

Eragrostis sororia Domin. *Biblioth. Bot.* 1 v. 399 (1915).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia, Queensland. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Queensland: Sandhgel der Dividing Range vstlich von Jericho, Feb 1910, *Domin s.n.*

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (256), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989), K.O.Mallett

(ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (374 & 400, Fig 67 & 71), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), K.Domin, *Bibliotheca Botanica* 85 (1915) (Pl.16).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 175, Fig.5 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. soror*, sister. Readily confused with related species.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or rambling, 40–70 cm long. Leaf-sheaths glabrous on surface, outer margin glabrous or hairy. Leaf-sheath oral hairs ciliate, 1.5 mm long. Ligule a fringe of hairs, 0.25 mm long. Leaf-blades flat or involute, 2–3 mm wide. Leaf-blade surface scabrous.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, linear or oblong, interrupted, 5–20 cm long, 2–8 cm wide, contracted about primary branches. Panicle axis scabrous, glabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5 mm long, scabrous.

Fertile Spikelets. Spikelets comprising 5–25 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4–12 mm long, 2.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets disarticulating separately.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.7–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5–2.3 mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2–2.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma surface scaberulous. Lemma apex obtuse or acute. Palea 0.75–0.8 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory, Queensland, New South Wales.

Darwin & Gulf. North, Central, South East, Inland. Coast, Tablelands, Western Slopes, Western Plains.

Eragrostis spartinoides Steud. *Syn. Pl. Gram.* 265. (1854).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), W.D.Clayton & N.Snow, Key to Pacific Grasses (2010).

TYPE from Phillipines. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: T: *H. Cuming* 668, Phillipines: Luzon: Laguna (L).

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (256).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): Gk. -oides, resembling. Superficially similar to *Spartina*..

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 20–60 cm long. Ligule a fringe of hairs. Leaf-blades filiform or linear, 1–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, linear or lanceolate, 5–20 cm long, contracted about primary branches. Primary panicle branches distant, simple, 1–4 cm long, bearing spikelets almost to the base. Spikelets appressed, solitary. Fertile spikelets pedicelled. Pedicels present, 1 mm long.

Fertile Spikelets. Spikelets comprising 8–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 5–15 mm long, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.75 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2 mm long, cartilaginous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Tropical Asia, Australasia, Pacific.

Country /Province /State. Indo-China, Malesia. Philippines. **Australia.** Western Australia, Northern Territory, Queensland, New South Wales. **South-central Pacific.** New Caledonia. Cook Is, Easter Is. Caroline Is.

Kimberley. Darwin & Gulf. North, Central, South East, Inland. Coast, Tablelands.

Eragrostis speciosa (Roem. & Schult.) Steud. *Syn. Pl. Gram.* 279 (1854).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Poa speciosa* Roem. & Schult., *Syst. Veg.* 2: 573 (1817). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: R. Brown 6273, 1802–1805, Australia: "inter australiense".

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (381, Fig 314), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (120, Pl 34), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (257), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (362 & 374, Fig 65 & 67), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (257), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 174, Fig.4 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. speciosus*, beauty; -osa, abundance. Showy in some respect, in particular the inflorescence.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glaucous. Culms erect, slender, 30–90 cm long. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades convolute, 15–25 cm long, 1–2 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear or oblong, continuous or interrupted, 7–10 cm long, 1.2–2.5 cm wide. Primary panicle branches appressed, 5–9 cm long. Panicle branches capillary. Spikelets solitary. Fertile spikelets sessile or pedicelled. Pedicels absent or present.

Fertile Spikelets. Spikelets comprising 10–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 7–33 mm long, 1–1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1 mm long, 0.7–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.2 mm long, 0.66 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma lanceolate or ovate, 1.7–2 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent, close to margins. Lemma apex obtuse. Palea 0.33–0.5 length of lemma. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2. Caryopsis with adherent pericarp, ovoid, 0.5 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. **Australia.** Western Australia, Northern Territory, South Australia, Queensland, New South Wales.

Kimberley, Ereman. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre. North, Central, South East, Inland. Western Plains.

Eragrostis spectabilis (Pursh) Steud. *Nom. ed.* II. i. 564. (1840).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Poa spectabilis* Pursh, *Fl. Amer. Sept.* 1: 81 (1814) [1813] ; *Poa amabilis* Walter, *Fl. Carol.* 80 (1788). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: Clayton 580, USA: South Carolina (US-2891488 (fragm.)).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (90), F.W.Gould, *The Grasses of Texas* (1975) (192, Fig. 97).

Illustrations (Journals): *Sida* (21: 1372, Fig.1C-E (2005)).

Images: R.Darke, *Ornamental Grasses* (2004);, R.Darke, *The Encyclopaedia of Grasses for Liveable Landscapes* (2007);.

Derivation (Clifford & Bostock 2007): *L. showy*. Attractive or outstanding in some respect such as height.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short, knotty. Culms erect or geniculately ascending, 40–75 cm long. Leaf-sheaths glabrous on surface or pilose, outer margin hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades 15–40 cm long, 3–7 mm wide. Leaf-blade surface glabrous or pilose, hairy on both sides.

Inflorescence. Inflorescence a panicle, deciduous as a whole, exserted or embraced at base by subtending leaf. Panicle open, oblong or ovate, effuse, 25–45 cm long, 15–30 cm wide, 0.66 of culm length. Primary panicle branches ascending or spreading, 9–15 cm long. Panicle branches capillary, straight, scabrous, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 7–11 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 5–7 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.4–2 mm long, 0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.6–2.2 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.8–2.2 mm long, chartaceous, purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ellipsoid, 0.8 mm long, dark brown.

$2n = 20$ (1 ref TROPICOS).

Distribution (TDWG). Continent. North America.

Country /Province /State. Eastern Canada, Northwest USA, North-central USA, Northeast USA, South-central USA, Southeastern USA, Mexico. Colorado. Kansas, Nebraska. Connecticut, Indiana, Massachusetts, Michigan, Ohio, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, West Virginia. New Mexico, Texas. Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, District of Columbia. Northeast Mexico.

Coahuila, Chihuahua, Neuvo Leon, San Luis Potosi, Tamaulipas.

Eragrostis spicata Vasey. *Coult. Bot. Gaz.* xvi. 146. (1891).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mexico. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *T.S. Brandege* 10, 12 Sep 1890, Mexico: Baja California Sur: San Josi del Cabo (US-1761638).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (92), A.Burkat, *Flora Ilustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (181, Fig 63).

Illustrations (Journals): *Sida* (21: 1411, Fig.6D-E (2005)).

Derivation (Clifford & Bostock 2007): *L. spica*, thorn; -ata, possessing; Inflorescence a spike or spicate panicle.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 75–100 cm long. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs. Leaf-blades flat or involute, 20–30 cm long, 4–8 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle spiciform, linear, 30–35 cm long, 0.4–0.5 cm wide. Primary panicle branches appressed, 0.5 cm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 1.5–2 mm long, 1 mm wide, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret. Rhachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.25 mm long, 1.25 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume ovate, 1 mm long, 0.5 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile lemma ovate, 2 mm long, membranous, light green, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex obtuse. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ellipsoid, 1 mm long.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. South-central USA, Mexico. Texas. Northeast Mexico, Northwest Mexico. Southern South America. Argentina Northeast, Paraguay.

TDWG4. Salta. Chaco, Entre Rios, Formosa, Santa Fe. Tamaulipas. Baja California Sur, Sonora.

Eragrostis spicigera Cope. *Kew Bull.* 53:155 (1998).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Zambia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Zambia: Kawambwa Distr.: Chishinga Ranch, Sep 1960, *Astle 102* (HT: SRGH).

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):120, t. 38).

Derivation (Clifford & Bostock 2007): *L. spica*, thorn; gero, carry. Inflorescence a spiculate panicle.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Cataphylls inconspicuous. Butt sheaths glabrous, persistent and investing base of culm, with fibrous dead sheaths. Culms erect, 30–60 cm long, wiry. Culm-internodes eglandular. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheaths eglandular, without keel, glabrous on surface. Ligule a fringe of hairs. Leaf-blades filiform, involute, 5–10 cm long, 0.5–0.7 mm wide, eglandular. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear, 3–6.5 cm long. Primary panicle branches indistinct the panicle almost racemose. Panicle branches eglandular, glabrous in axils, with insignificant pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–2.5(–10) mm long, eglandular.

Fertile Spikelets. Spikelets comprising 6–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 8–12 mm long, 3–3.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate or oblong, 2.5–2.8 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate or oblong, 3–4 mm long, 0.66 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla. Fertile lemma elliptic or oblong, 3.5–4 mm long, cartilaginous, grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Palea 2 -veined. Palea keels puberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 2.6 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Zambia.

Eragrostis squamata (Lam.) Steud. *Syn. Pl. Gram.* 274. (1854).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Sierra Leone. **Basionym or Replaced Name:** *Poa squamata* Lam., *Illustr.* 1: 185 (Eragrostidis sp.) (1791). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Smeathman 85*, Sierra Leone (P; IT: US-2891478 (fragm. ex P-LAM)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. squama*, scale; -ata, possessing.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–120 cm long. Leaf-sheaths glabrous on surface or pilose. Ligule a fringe of hairs. Leaf-blades involute, 5–30 cm long, 1–3(–6) mm wide, mid-green or glaucous. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 6–35 cm long. Primary panicle branches ascending, bearing spikelets almost to the base. Panicle branches stiff, straight. Spikelets appressed, solitary. Fertile spikelets pedicelled. Pedicels present, oblong.

Fertile Spikelets. Spikelets comprising 5–40 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 5–25 mm long, 2–2.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.6 mm long, 0.6–0.7 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5–2.5 mm long, 0.8–1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets imbricate to tip. Fertile lemma ovate, 2–2.5 mm long, membranous, grey or purple, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2, 0.5 mm long. Caryopsis with adherent pericarp, orbicular, 0.5 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, West-central tropical Africa. Ghana, Guinea-Bissau, Guinea, Ivory Coast, Liberia, Mali, Mauritania, Nigeria, Senegal, Sierra Leone. Central African Republic, Cameroon, Congo, Gabon, DRC.

Eragrostis stagnalis M. Lazarides. *Austral. Syst. Bot.*, 10(1): 152 (1997).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Katherine: *Beaglehole 58446* (CANB holo).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (362, Fig 65), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 174, Fig.4 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): *L. stagnum*, standing water; *-alis*, pertaining to. Growing along the margins of still water.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Cataphylls evident. Butt sheaths glossy, glabrous. Culms slender, 35–95 cm long, 3–5 -noded. Culm-internodes eglandular. Lateral branches lacking or sparse. Leaf-sheaths tight, eglandular. Leaf-sheath oral hairs scanty or lacking. Ligule a fringe of hairs, 0.1–0.3 mm long. Leaf-blades lanceolate or elliptic, 1–2.8 mm wide. Leaf-blade surface scaberulous, rough adaxially, glabrous. Leaf-blade margins eglandular, scabrous.

Inflorescence. Inflorescence a panicle. Peduncle eglandular. Panicle open, elliptic, 25–33 cm long, 6–8 cm wide. Primary panicle branches spreading or drooping, distant, 4–9 cm long, naked below or bearing spikelets almost to the base. Panicle axis eglandular. Panicle branches capillary, eglandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–7.5 mm long, eglandular.

Fertile Spikelets. Spikelets comprising 10–61 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed or subterete, 5.4–30 mm long, 0.8–1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes zig-zag, 0.4–0.5 mm long, obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume linear or lanceolate, 0.9–1 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume linear or lanceolate, 0.9–1 mm long, 0.5–0.6 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, 1.5–2 mm long, membranous, dull, keeled, 3 -veined, 0–3 -veined. Lemma apex acute or acuminate. Palea oblanceolate, with flaps narrower than body, hyaline, 2 -veined. Palea keels scaberulous, adorned above. Palea surface smooth or scaberulous (on flaps). Palea apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.2–0.4 mm long. Caryopsis with free soft pericarp, linear or oblong, isodiametric, 0.5–0.8 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory, Queensland. Darwin & Gulf, Victoria R & Barkly Tableland. North.

Eragrostis stapfii De Winter. *Meredith, Grasses & Pastures S. Afr.* 152 (1955).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. **Basionym or Replaced Name:** *Eragrostis sporoboloides* Stapf, *Fl. Cap.* 7: 607 (1900). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Rehmann 5686*, South Africa: Kalahari Region: Transvaal: Houtbosch

ST: *Rehmann 5695*, South Africa: Kalahari Region: Transvaal: Houtbosch.

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (153, Fig 121).

Derivation (Clifford & Bostock 2007): in honor of Otto Stapf (1857–1933) Austrian-born English botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Butt sheaths glabrous. Culms erect, 15–90 cm long. Ligule a fringe of hairs. Leaf-blades curled, filiform, involute, 10–20 cm long, 1–2 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 5–15 cm long, 3–7 cm wide. Primary panicle branches whorled at lower nodes. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2–3(–5) fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 2–4 mm long, 0.5–1 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets disarticulating separately. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1 mm long, 0.66 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla. Fertile lemma elliptic, 1.5 mm long, membranous, keeled, lightly keeled, 1(–3) -veined, 0–3 -veined, one-veined or several-veined. Lemma lateral veins obscure. Lemma apex acute or acuminate. Palea keels approximate, smooth or scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.8 mm long. Caryopsis with free soft pericarp, oblong. Embryo 0.5 length of caryopsis.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa, Southern Africa. Angola, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Free State.

Eragrostis stenostachya (R.Br.) Steud. *Syn. Pl. Gram.* 279. (1854).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Poa stenostachya* R. Br., *Prod.* 181 (1810). T:<Type of Basionym>; *vide* TROPICOS and Kew Synonymy Database: Australia: "(T.) B. v.s." ; Australia, Queensland, Endeavour R.: Banks & Solander (BM holo).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (362, Fig 65), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 174, Fig.4 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): Gk. *stenos*, narrow; *stachys*, ear of corn. Inflorescence a narrow spike or spike-like panicle.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 30–50 cm long. Ligule a fringe of hairs. Leaf-blades convolute, 5–15 cm long, 1–2 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 7–12 cm long. Primary panicle branches simple. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 4–8 mm long, 0.75–1 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1 mm long, 0.7–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.3 mm long, 0.9–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.3–1.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Namibia. **Australia.** Northern Territory, Queensland.

Darwin & Gulf. North, Central.

Eragrostis stenothyrsa Pilger. *Engl. Jahrb.* li. 421 (1914).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Namibia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Namibia, Hoachanas: Dinter 1966.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. *stenos*, narrow; *thyrsos*, ornamental wand. Panicle contracted.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths woolly. Culms 25–50 cm long. Leaves mostly basal. Ligule a fringe of hairs. Leaf-blades 5–10 cm long, 1–2 mm wide.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear, 8 cm long. Primary panicle branches appressed. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate or ovate, laterally compressed, 4–8 mm long, 0.5–1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets overlapping 0.66 their length. Fertile lemma ovate, 2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins stopping well short of apex. Lemma apex acute. Palea keels scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1.3 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Namibia.

Eragrostis sterilis Domin. *Biblioth. Bot.* 1 v. 403 (1915).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia, Queensland. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Queensland: Sandhgel der Dividing Range vstlich von Jericho, Mar 1909, *Domin s.n.*.

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler, *Grasses of New South Wales*, 4th edn (2008) (257), K.Domin, *Bibliotheca Botanica* 85 (1915) (Pl.16).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): the lower florets are sterile.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 25–60 cm long. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs. Leaf-blades convolute, 10–16 cm long, 1–2 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or pyramidal, 10–14 cm long. Primary panicle branches simple or sparsely divided, 2.5 cm long. Panicle branches scaberulous. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 20–40 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 10–20 mm long, 2–2.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5 mm long, 0.8–0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.75–1.9 mm long, membranous, purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex obtuse. Palea 1.25 mm long. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2, 0.4 mm long. Caryopsis with adherent pericarp, orbicular, laterally compressed, 0.6 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory, Queensland, New South Wales. Central Australia. Central, Inland. Western Plains.

Eragrostis stolonifera A. Camus. *Not. Syst., ed. Humbert*, xiii. 263 (1949).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Madagascar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Perrier de la Bathie 14546*, Domaine Central: massif d'Andringitra, endroits humides, alt. 2000 m.

ST: *Perrier de la Bathie 10850*, Domaine Central: environs d'Ambositra, alt. 1700 m.

ST: *Perrier de la Bathie 12570*, Domaine Central: alt. 1500 m.

Illustrations (Books): J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (165, Fig 57).

Derivation (Clifford & Bostock 2007): L. stolo, shoot; fero, bear. Plant with well developed underground stems.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes elongated. Culms erect or geniculately ascending, 15–45 cm long. Culm-internodes distally glabrous. Lateral branches lacking. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades 4–10 cm long, 1–4 mm wide, glaucous. Leaf-blade surface glabrous, hairless except near base.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, 5–10 cm long, 3–11 cm wide. Primary panicle branches ascending or spreading, 1-nate, 3–8 cm long, bearing spikelets almost to the base. Panicle branches stiff. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 3–6 mm long, 1.2–1.5 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1–1.2 mm long, 0.66 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 0.8–1.7 mm long, 1.5–1.7 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5–2 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea keels scaberrulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

Eragrostis suaveolens Becker ex Claus. *Beitr. Pflanz. Russ. Reich.* 8: 266 (1851).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Russia, Sarepta: Coll?.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. sweet-scented. Usually of species with sweet-scented inflorescences.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Middle Asia, China. Kazakhstan. Xinjiang.

TDWG4.

Eragrostis subaequiglumis Renvoize. *Kew Bull.*, 25(3): 419 (1971).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Aldabra. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Aldabra: Renvoize 1039 (K holotype).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. sub, approaching; aequis, equal; gluma, husk. Glumes similar.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual or perennial, caespitose. Culms erect, 10–45 cm long. Culm-internodes distally glabrous. Leaf-sheaths smooth or scaberulous, glabrous on surface, outer margin hairy. Leaf-sheath oral hairs ciliate, 3–4 mm long. Ligule a fringe of hairs, 0.1–0.2 mm long. Leaf-blades flat or involute, 5–10 cm long, 1–1.2 mm wide, stiff or firm. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle spiciform, linear. Primary panicle branches 1-nate. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–5 mm long.

Fertile Spikelets. Spikelets comprising 10–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 3–6 mm long, 0.5–1.25 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume elliptic or ovate, 1–1.2 mm long, 1 length of upper glume, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex obtuse or acute. Upper glume elliptic or ovate, 1–1.2 mm long, 0.9–1 length of adjacent fertile lemma, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex obtuse or acute.

Florets. Fertile lemma elliptic or ovate, 1–1.5 mm long, 0.5 mm wide, membranous, keeled, 3-veined, 0–3-veined. Lemma apex acute. Palea 0.8–1 mm long. Palea keels ciliate, with hairs 0.5 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2, 0.3 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.5 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Aldabra, Madagascar, Seychelles.

Eragrostis subglandulosa Cope. *Kew Bull.* 53:151 (1998).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Botswana. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Botswana: Qangwa River, near Qangwa Village, 20 Apr 1981, P.A. Smith 3699 (HT: K; IT: SRGH).

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):101, t. 34).

Illustrations (Journals): *Kew Bulletin* (148, fig.4. (1998)).

Derivation (Clifford & Bostock 2007): *L. sub-*, approaching; *glans*, gland; *-ulus*, diminutive; *-osa*, abundance. Pedicels of the inflorescence branches bear inconspicuous glands.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Butt sheaths glabrous. Glands sunken crateriform. Culms erect, 15–35 cm long. Culm-internodes eglandular. Culm-nodes glabrous. Lateral branches sparse, arising from lower culm. Leaf-sheaths eglandular, without keel, glabrous on surface. Ligule a fringe of hairs. Leaf-blades filiform, involute, 3.5–10 cm long, 0.6–0.8 mm wide, eglandular. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 5.5–16 cm long. Panicle branches glandular (at base), glabrous in axils, with insignificant pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.8–3.5 mm long, glandular.

Fertile Spikelets. Spikelets comprising 5–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or oblong, laterally compressed, 4.2–7.5 mm long, 1 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas, fragile above. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 1.3–1.7 mm long, 1 length of upper glume, membranous, 1-keeled, 1-veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.3–1.7 mm long, 0.25–0.5 length of adjacent fertile lemma, membranous, 1-keeled, 1-veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla. Fertile lemma elliptic or oblong, 1.6–1.9 mm long, membranous, grey or purple, tipped with last colour, keeled, 3-veined, 0–3-veined. Lemma lateral veins obscure. Lemma apex obtuse. Palea 2-veined. Palea keels smooth. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 1–1.2 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.7–0.8 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Namibia, Botswana.

Eragrostis subsecunda (Lam.) Fourn. *Mex. Pl.* 2:118 (1886).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from China. **Basionym or Replaced Name:** *Poa subsecunda* Lam., Illustr. 1: 184 (1791). T:<Type of Basionym>; *vide* TROPICOS and Kew Synonymy Database: China: *Sonnerat* (P holo).

Illustrations (Books): No illustration found (BKS).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms 70–80 cm long. Culm-nodes glabrous. Ligule a fringe of hairs. Leaf-blades linear or lanceolate, 1–15 cm long, 1–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 3–25 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 10–16 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate or oblong, laterally compressed, 7–9 mm long, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1–2 mm long, 0.5–0.75 length of upper glume, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate or ovate, 2–2.5 mm long, 1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2–2.5 mm long, 1–1.5 mm wide, chartaceous, mid-green or purple, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea 1.5–2 mm long. Palea keels scaberulous, ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.25–0.5 mm long. Caryopsis with adherent pericarp, ovoid, 0.5–1 mm long.

Distribution (TDWG). Continent. Tropical Asia, Australasia.

Country /Province /State. Indian Subcontinent, Indo-China. Assam, Sri Lanka. Thailand. **Australia.** Queensland. North.

Eragrostis subtilis M. Lazarides. *Austral. Syst. Bot.*, 10(1): 155 (1997).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>; *vide* TROPICOS and Kew Synonymy Database: Australia, Northern Territory, Napperby Station: *Latz 2269* (CANB holo, BRI, DNA, K, NSW, PERTH).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 171, Fig.1 (1997)).

Derivation (Clifford & Bostock 2007): L. fine. Leaf-blades linear.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Cataphylls evident. Butt sheaths hirsute. Culms slender, 50–60 cm long, 4–5 -noded. Culm-internodes eglandular. Leaf-sheaths tight, wider than blade at the collar, eglandular, outer margin hairy. Leaf-sheath oral hairs bearded, 3–4 mm long. Ligule a fringe of hairs, 0.8–1 mm long. Leaf-blades filiform, involute or convolute, 1 mm wide. Leaf-blade surface scaberulous, rough adaxially, pilose or hirsute, hairy adaxially. Leaf-blade margins cartilaginous, eglandular, scaberulous. Leaf-blade apex filiform.

Inflorescence. Inflorescence a panicle. Peduncle eglandular. Panicle open, ovate, loose or effuse, 20–30 cm long, 7–14 cm wide. Primary panicle branches spreading or drooping, distant, 4–8 cm long. Panicle axis eglandular. Panicle branches stiff, eglandular, smooth, glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–8 mm long, eglandular.

Fertile Spikelets. Spikelets comprising 9–11 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, subterete, 4–4.5 mm long, 0.3–0.5 mm wide, breaking up at maturity, rachilla persistent, retaining paleas. Rachilla internodes curved, 0.3–0.5 mm long, obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume linear or lanceolate, 0.8–1 mm long, 1 length of upper glume, hyaline or membranous, without keels or 1-keeled, 1 -veined. Lower glume primary vein smooth or scaberulous. Lower glume lateral veins absent. Lower glume apex emarginate or acuminate. Upper glume lanceolate, 0.8–1 mm long, 1 length of adjacent fertile lemma, hyaline or membranous, 1-keeled, 1 -veined. Upper glume primary vein smooth or scaberulous. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma elliptic or ovate, 0.9–1 mm long, membranous, keeled, lightly keeled, 1–3 -veined, 0–3 -veined, one-veined or several-veined. Lemma lateral veins obscure, stopping well short of apex. Lemma apex emarginate or obtuse. Palea with flaps narrower than body, 1 length of lemma, hyaline, 2 -veined. Palea

keels falling well short of apex, smooth or scaberulous, adorned above. Palea apex emarginate or obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.1–0.2 mm long, retained within floret or eventually exerted. Caryopsis with adherent pericarp, ellipsoid or oblong or obovoid, dorsally compressed, 0.4–0.5 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory.
Central Australia.

Eragrostis superba Peyr. *Sitzb. Acad. Wien, Math.-Nat.* viii. (1860).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Angola. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Wawra 244*, Angola: Benguela (W).

Illustrations (Books): R.M.Phill, F.T.E.A., *Gramineae* (2(1974):193, Fig.61), G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):56–85, t. 23–31, 1 plate, 1 spikelet drawing), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (140, Fig 108), M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (381, Fig 315), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (362, Fig 65), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (88), E.Hafliger & E.Schultz, *Grass Weeds*, CIBA-GEIGY (2:74(1980)).

Illustrations (Journals): *Sida* (21: 1400, Fig.11D-H (2005)), *Austr. Syst. Bot.* (10: 174, Fig.4 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): extra. Plants large in some respect and especially with tall culms or long leaf-blades.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 20–120 cm long. Ligule a fringe of hairs. Leaf-blades 10–40 cm long, 2–10 mm wide, glaucous.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate or ovate, 10–30 cm long. Primary panicle branches simple or moderately divided. Panicle branches stiff. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong, 1–5 mm long.

Fertile Spikelets. Spikelets comprising 6–28(–47) fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate or orbicular, laterally compressed, compressed strongly, 6–16(–23) mm long, 3–10 mm wide, falling entire.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 2–4 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 2–4 mm long, 0.6–0.9 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets imbricate to tip. Fertile lemma ovate, 3–4.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma apex obtuse. Palea 2 -veined. Palea keels thickened, winged, ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 2 mm long. Caryopsis with adherent pericarp, ellipsoid, 1–1.5 mm long.

$N = 20$ (1 ref TROPICOS). $2n = 40$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa, Temperate Asia, Tropical Asia, Australasia (*), Pacific, North America, South America.

Country /Province /State. West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa. Gabon, DRC. Ethiopia (inc. Eritrea), Somalia, Sudan. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Northern Cape. Western Asia, Arabian Peninsula. Iran. Indian Subcontinent, Indo-China. Pakistan (*). Thailand. Australia. Northern Territory (*), South Australia (*), Queensland (*), Victoria (*). North-central Pacific. Hawaii (*). Southwestern USA, South-central USA, Mexico. Arizona. New Mexico, Texas. Central Mexico, Northeast Mexico, Northwest Mexico, Southwest Mexico. Mesoamerica, Northern South America. Honduras. Guyana.

Central Australia. Southern. Central. Mexico State. Aguascalientes, Coahuila, Chihuahua, Guanajuato, Neuvo Leon, San Luis Potosi, Zacatecas. Sonora. Michoacan.

Eragrostis surreyana K.A.Sheph. & Trudgen. *Telopea* 13: 144–145 (2011).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Western Australia, about 100 km N of Tom Price. *A.A. Mitchell PRP 1518*, 10 Sep 1996; holo. PERTH4995511; iso. CANB, DNA, K *n.v.*

Illustrations (Journals): *Telopea* (13: 146, Fig. 1 (2011)).

Derivation (Clifford & Bostock 2007): Named for the late Surrey Jacobs (1946–2009),.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or decumbent, 5–8(–13) cm long. Ligule a fringe of hairs. Leaf-blades filiform, convolute, 1.6–3.5 cm long, 0.2–0.6 mm wide.

Inflorescence. Inflorescence a panicle, terminal and axillary, aerial or shorter than basal leaves. Panicle spiciform, linear, 9–13 cm long, 0.5–1.3 cm wide. Primary panicle branches 1–3 cm long. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 8–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4.8–13 mm long, 1.1–3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes 0.3–0.5 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–2.2 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.3–2.7 mm long, 1.1–1.4 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.2–1.9 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein without distinctive roughness or scaberulous. Lemma lateral veins ribbed. Lemma apex acute, mucronate or mucronate. Palea oblong or ovate, 0.66 length of lemma. Palea keels scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.2–0.3 mm long. Caryopsis with adherent pericarp, ovoid, laterally compressed, 0.35–0.5 mm long, light brown.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia. Ereman.

Eragrostis swallenii Hitchcock. *Journ. Wash. Acad. Sc.* xxiii. 451. (1933).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA, Texas. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *J.R. Swallen 1847*, 8 Jun 1931, USA: Texas (US-1535332; IT: US-3160855, US-2852654).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (94).

Derivation (Clifford & Bostock 2007): in honor of Jason Richard Swallen (1903–1991) United States botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Glands annular. Culms 40–70 cm long. Culm-internodes glandular (below nodes). Leaf-sheaths glabrous on surface. Ligule a fringe of hairs. Leaf-blades 10–20 cm long, 2–4 mm wide. Leaf-blade surface glabrous, hairless except near base.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 15–25 cm long, 10–15 cm wide. Primary panicle branches ascending or reflexed, simple, 3–12 cm long. Panicle branches flexuous, glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, glandular.

Fertile Spikelets. Spikelets comprising 8–25 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or lanceolate, laterally compressed, 6–16 mm long, 1.5–2.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above. Rhachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.4 mm long, 0.7–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.8 mm long, 0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2 mm long, membranous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ellipsoid, 1 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. South-central USA, Mexico. Texas. Central Mexico, Northeast Mexico, Gulf (Mexico), Southwest Mexico, Southeast Mexico.
Puebla. Queretaro, San Luis Potosi, Tamaulipas. Veracruz. Jalisco, Oaxaca. Chiapas.

Eragrostis sylviae Cope. *Kew Bull.* 53:163 (1998).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Malawi. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Malawi: Mulanje Distr.: Mt. Mulanje, path from Chmabe Knife Edge to Chisepo shelter, 2100 m, 14 Apr 1991, *S.M. Phillips* 68 (HT: K).

Illustrations (Journals): *Kew Bulletin* (161, fig.7 (1998)).

Derivation (Clifford & Bostock 2007): In honor of Sylvia Mabel Phillips (1945-) English botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous. Culms erect, 15–35 cm long. Culm-internodes eglandular. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheaths longer than adjacent culm internode, eglandular, without keel, glabrous on surface. Ligule a fringe of hairs. Leaf-blades flat or involute, 5.5–9.5 cm long, 2.5–3.5 mm wide, eglandular. Leaf-blade surface pilose, sparsely hairy.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, 6.5–9 cm long, contracted about primary branches. Panicle branches eglandular, bearded in axils, with insignificant pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–1 mm long, eglandular.

Fertile Spikelets. Spikelets comprising 10–13 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 7.5–9 mm long, 2.5–3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above. Rhachilla internodes obscured by lemmas.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate or oblong, 1.5–2 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate or oblong, 1.5–2 mm long, 0.5 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent. Fertile lemma elliptic or ovate, 2.3–3 mm long, membranous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea 2 -veined. Palea keels puberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.7–0.9 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Malawi.

Eragrostis tef (Zucc.) Trotter. *Bull. Soc. Bot.Ital.* 1918, 62, (1918).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)*, N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), N.Tsvelev, *Grasses of the Soviet Union* (1983), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Ethiopian seed. **Basionym or Replaced Name:** *Poa tef* Zucc., *Diss. Ditef* (1775.). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: Anon., Cult. at Florence from seed collected in Ethiopia by Bruce (FI).

Illustrations (Books): H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962) (as *E. abyssinica*), R.M.Phillips, F.T.E.A., *Gramineae*, G.V.Pope et al., *Flora Zambesiaca* 10, L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (154, Fig 122), L.Boulos, *Flora of Egypt* 4 (2005) (257, Pl. 76), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (382, Fig 316).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): Amharic. Origin of the name is uncertain but may derive from the Arabic tahf (good), a name applied by the Semites of South Arabia to a similar wild grass, the grain of which is collected at times of food scarcity.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms erect, 20–90 cm long. Ligule a fringe of hairs. Leaf-blades 10–30 cm long, 2–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, lanceolate or ovate, 10–40 cm long. Primary panicle branches whorled at lower nodes. Panicle branches flexuous, glabrous in axils or bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 4–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5.5–9 mm long, 1.5–2 mm wide, persistent on plant.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 1.2–2.5 mm long, 0.7–0.8 length of upper glume, 1-keeled, 0–1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 1.7–3 mm long, 0.8–1.1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile florets appressed to rachilla or divergent (at maturity). Fertile lemma elliptic or oblong, 2–2.7 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.3–0.6 mm long. Caryopsis with adherent pericarp, oblong, isodiametric, exposed between gaping lemma and palea at maturity, 1–1.2 mm long, pallid or dark brown or red.

Distribution (TDWG). Continent. Europe, Africa, Temperate Asia, Tropical Asia, Australasia (*), Pacific, North America, South America.

Region. Northern Europe (*), Middle Europe, Eastern Europe.

Country /Province /State. : Great Britain (*). South European Russia, Ukraine. **Northern Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa** (*), **Middle Atlantic ocean, Western Indian ocean.** Egypt, Libya. Ethiopia (inc. Eritrea), Somalia. Kenya, Tanzania, Uganda. Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Free State, Kwazulu-Natal, Lesotho, Northern Cape, Western Cape, Eastern Cape. Madagascar (*). **Arabian Peninsula.** Saudi Arabia, Yemen. **Indian Subcontinent, Indo-China, Malesia.** Thailand. Java. **Australia.** South Australia (*), New South Wales (*), Victoria (*). **North-central Pacific.** New Caledonia (*). **South-central USA.** Texas. **Brazil, Southern South America.** Brazil North. Argentina Northeast.

TDWG4. Rajasthan, Tamilnadu. Southern. Coast, Western Plains. Mendoza.

Eragrostis tenax (HBK) Steud. *Nom. ed. II. i. 564.* (1840).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Ecuador. **Basionym or Replaced Name:** *Poa tenax* Kunth, *Nov. Gen. Sp. (quarto ed.)* 1: 160 (1815) [1816]

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Humboldt & Bonpland s.n.*, Apr-MAY, Ecuador (P; IT: US-2891490 (HT fragm. ex P, and Bonpl. 3023 from Chillo ex P), US-2891441 (fragm. ex Bonpl. 3023, Chillo, B-WILLD)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. holding firmly together, persistent. Densely tufted.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms 120–150 cm long. Lateral branches lacking. Leaf-sheaths glabrous on surface or pilose. Ligule a fringe of hairs. Leaf-blades 60–100 cm long, 4–10 mm wide, stiff, glaucous. Leaf-blade venation prominent. Leaf-blade surface scabrous, glabrous, hairless except near base. Leaf-blade margins scabrous. Leaf-blade apex attenuate, filiform.

Inflorescence. Inflorescence a panicle. Panicle spiciform, linear, interrupted, 30–60 cm long, 1–3 cm wide. Primary panicle branches 1.5–3 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 4 mm long, breaking up at maturity, rachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.5 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 2 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins obscure. Lemma apex acute. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 1.2 mm long. Caryopsis with adherent pericarp, ovoid, 0.8 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America. Ecuador.

Eragrostis tenella (L.) P.Beauv. ex Roem. & Schult. *Syst.* 2: 576 (1817).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), T.Koyama, *Grasses of Japan and its neighboring regions* (1987), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from India. **Basionym or Replaced Name:** *Poa tenella* L., *Sp. Pl.* 1: 69 (1753). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *Anonymous*, India (LINN-87.33). LT designated by Mitra & Jain in Manilal (ed.), *Bot. Hist. Hort. Malab.* : 151 (1980); also superfluously by Veldkamp, *Blumea* 47(1): 164 (2002).

Recent Synonyms: *Eragrostis amabilis* (L.) Hook. & Arn., *Bot. Beechey Voy* 251 (1838) LT designated by Veldkamp in Cafferty et al., *Taxon* 49(2): 254 (2000)

Illustrations (Books): J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (22, Fig. 2 & 143, Fig. 46), T.Koyama, *Grasses of Japan and its neighbouring regions* (1987) (258, Fig 96), C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (392 as *E.amabilis*), C-C Hsu, *Taiwan Grasses* (1975) (479, Pl. 1402 as *E.amabilis*), K.M.Matthew, *Flora Palni Hills* (1996) (828, Pl. 828), K.M.Matthew, *Further Illustrations on the Flora of Tamilnadu Carnatic* (1988) (Pl. 781 as var. *insularis* & Pl. 779 as *E.plumosa*), H.J.Noltie, *The Grasses of Bhutan* (2000) (659, Fig. 33), H.B.Gilliland, *Grasses of Malaya* (1971) (72, Fig. 8), H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005) (67, Fig. 59 as *E.amabilis*), W.L.Wagner et al., *Manual of the Flowering Plants of Hawai'i*, Vol. 2 (1990) (1544, Pl. 228), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (73. as *E.amabilis*), A.S.Hitchcock, *Manual of the Grasses of the West Indies* (1936) (34, Fig. 13 as *E.amabilis*), S.A.Renvoize, *Gramineas de Bolivia* (1998) (322, Fig. 68, as *E.amabilis*), S.A.Renvoize, *The Grasses of Bahia*, 1984 (65, Fig. 23), W.Burger, *Flora Costaricensis* 15, *Gramineae: Fieldiana Botany New Series* 4 (1980) (213, Fig. 71), S-L Chen et al, *Flora of China*, *Illustrations, Poaceae* (2007) (Fig. 678), E.Hafliger & E.Schultz, *Grass Weeds*, CIBA-GEIGY (2:75(1980)).

Illustrations (Journals): *Ann. Missouri Bot. Gard.* (94: 757 fig 7 (2007)), *Ruizia* (13:239, Fig 27i-l (1993)).

Images: D.Sharp & B.K.Simon, *AusGrass. Grasses of Australia*. CD-Rom Version 1.0. (2002); (as *E. amabilis*), H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005); (as *E. amabilis*), H.B.Gilliland et al., *Flora of Malaya Vol. 3 Grasses* (1971);.

Derivation (Clifford & Bostock 2007): L. slender. Culms or inflorescence branches slender.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms geniculately ascending or decumbent, 6–50 cm long. Ligule a fringe of hairs. Leaf-blades 2–9 cm long, 1–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, linear (var *insularis*) or elliptic or pyramidal, 2–14 cm long. Primary panicle branches spreading or appressed (var *insularis*). Panicle branches glandular, without exudate, glabrous in axils or bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate or obovate, laterally compressed, 1.5–2.5 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes definite.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.5–1 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.5–1 mm long, 0.8–1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma oblong or ovate, 0.7–1 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein without distinctive roughness or scaberulous. Lemma apex obtuse. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.2 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.5 mm long.

N = 10 (1 ref TROPICOS).

Distribution (TDWG). **Continent.** Africa, Temperate Asia, Tropical Asia, Australasia, Pacific, North America, South America.

Country /Province /State. Northern Africa, West tropical Africa, West-central tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Middle Atlantic ocean, Western Indian ocean. Egypt. Gambia, Ghana, Guinea-Bissau, Ivory Coast, Liberia, Mali, Nigeria, Senegal, Sierre Leone. Cameroon, Gabon, Rwanda, DRC. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, Gauteng, Mpumalanga, Kwazulu-Natal, Northern Cape. Ascension. Mauritius, Madagascar, Rodrigues (*), Seychelles. **Western Asia, Arabian Peninsula, China, Eastern Asia.** Iran. Oman.

China South Central, Hainan, China North-Central, China Southeast, Tibet. Japan, Kazan-retto, Nansei-Shoto, Ogosawara-shoto, Taiwan. **Indian Subcontinent, Indo-China, Malesia, Papuaia.** Assam, Bangladesh, Eastern Himalaya, India, Laccadive Is, Pakistan, Sri Lanka, West Himalaya. Andaman Is, Cambodia, Myanmar, Thailand, Vietnam. Cocos (Keeling) Is, Java, Lesser Sunda Is, Malaya, Singapore, Philippines, Christmas I. New Guinea West Papua (Irian Jaya). New Guinea, Solomon Is. **Australia.** Western Australia, Northern Territory, Queensland. **Southwestern Pacific, South-central Pacific, Northwestern Pacific, North-central Pacific.** Fiji, Gilbert Is, Niue, New Caledonia, Phoenix Archipelago, Samoa, Tonga, Wallis-Futuna Is. Cook Is, Line Is, Marquesas, Society Is, Tuamotu Is, Tubuai Is. Caroline Is, Marianas, Marshall Is, Wake Is. Hawaii. **South-central USA, Southeastern USA, Mexico.** Alabama, Florida, Georgia, South Carolina. Central Mexico, Gulf (Mexico), Northwest Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica, Caribbean, Northern South America, Western South America, Brazil.** Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama. Bahamas, Bermuda, Cayman Is, Cuba, Dominican Republic, Haiti, Jamaica, Leeward Is, Windward Islands, Puerto Rico, Trinidad-Tobago. French Guiana, Guyana, Surinam, Venezuela. Bolivia, Peru. Brazil West Central, Brazil Northeast, Brazil North, Brazil Southeast, Brazil South.

TDWG4. Shandong. Anhui, Fujian, Guangdong, Guangxi. Hubei, Yunnan. Darjeeling, Bhutan, Sikkim. Tripura. Kerala. Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamilnadu, Uttah Pradesh, West Bengal. Kimberley. Darwin & Gulf. North, Central. Puebla. Veracruz. Baja California. Colima, Guerrero, Jalisco, Nayarit, Oaxaca. Chiapas, Quintana Roo, Tabasco, Yucatan.

Eragrostis tenellula (Kunth) Steud. *Syn. Pl. Gram.* 279 (1854).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Poa tenellula* Kunth, *Revis. Gramin.* 1: 113 (1829). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: littora novae Hollandiae intra tropicum,.

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (383, Fig 317), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (357, Fig 64), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler,., *Grasses of New South Wales*, 4th edn (2008) (257), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 171, Fig.1 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): *L. tenellus*, delicate; -ula, diminutive.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose, clumped moderately or densely. Culms erect, 25–50 cm long, 2-noded. Culm-nodes glabrous. Lateral branches lacking or sparse. Leaf-sheaths loose, smooth, glabrous on surface. Leaf-sheath oral hairs lacking. Ligule a fringe of hairs, 0.25 mm long. Leaf-blades 2–4 mm wide. Leaf-blade surface smooth, glabrous.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, lanceolate to ovate, 4–30 cm long, 0.5–12 cm wide, contracted about secondary branches. Panicle axis scabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–1 mm long, scabrous.

Fertile Spikelets. Spikelets comprising 3–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 1.5–3.5 mm long, 0.5–1 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.5–1 mm long, 1 length of upper glume, membranous, 1-keeled, 1-veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 0.5–1 mm long, 0.5–1 length of adjacent fertile lemma, membranous, 1-keeled, 1-veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1 mm long, membranous, keeled, 3-veined, 0–3-veined. Lemma lateral veins close to margins. Lemma apex acute. Palea 1 length of lemma. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 0.1–0.2 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. **Australia.** Western Australia, Northern Territory, South Australia, Queensland, New South Wales, Victoria.

Kimberley, Ereman. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre, Southern. North, Central, Inland. Western Plains.

Eragrostis tenuifolia (A.Rich.) Steud. *Syn. Pl. Glum.* 1:268 (1854).

Regarded by K as a synonym (*E. patula*).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)*, N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Ethiopia. **Basionym or Replaced Name:** *Poa tenuifolia* A. Rich., *Tent. Fl. Abyss.* T:<Type of Basionym>; *fide* TROPICOS and Kew Synonymy Database: LT: *G.H.W. Schimper* 92, Jan 1841 [18 Sep 1837], Ethiopia: in locis incultis Vallium prope Adoam (P; ILT: GOET-5814, K, L, WAG, US-1127147 (fragm.)). LT designated by S. Phillips, *Fl. Ethiopia* 7: 122 (1995).

ST: Quartin *Dillon s.n.*, Oct, Ethiopia: crescit in montosis Chiri (P).

Illustrations (Books): R.M.Polhill, F.T.E.A., *Gramineae* (2(1974):196, Fig. 62), G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):83, t. 30, 1 plate, 1 spikelet drawing), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (31 & 167, Fig 7 & 58), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (123, Fig 50), K.M.Matthew, *Further Illustrations on the Flora of Tamilnadu Carnatic* (1988) (pl.782), E.E.Henty, *A Manual of the Grasses of New Guinea* (1969) (86, Pl. 32), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (257), J.C.Tothill, & J.B.Hacker. *The grasses of southern Queensland* (1983) (228), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (171, Fig. 26), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), W.Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (224, Fig 77), E.Hafliger & E.Schultz, *Grass Weeds*, CIBA-GEIGY (2:76(1980)).

Illustrations (Journals): *Ann. Missouri Bot. Gard.* (94: 785 fig 21 (2007)), *Ruizia* (13:252, Fig 29a-c (1993)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): *L. tenuis*, slender; folium, leaf. Leaf-blades narrow.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous. Basal innovations flabellate. Culms erect, 10–70 cm long. Ligule a fringe of hairs. Leaf-blades 4–30 cm long, 1–3 mm wide. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 5–20 cm long. Panicle branches glabrous in axils or bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, eglandular or glandular.

Fertile Spikelets. Spikelets comprising 4–16 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 4–16 mm long, 1–3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.5–1 mm long, 0.5–0.6 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 0.8–1.4 mm long, 0.5–0.6 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla (initially) or divergent, free at tip (serrate in outline). Fertile lemma elliptic or oblong, 1.6–2.5 mm long, membranous, dark green, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex obtuse or acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.5–0.9 mm long. Caryopsis with adherent pericarp, oblong, laterally compressed (strongly), 1 mm long.

$N = 20$ (2 refs TROPICOS). $2n = 40$ (2 refs TROPICOS).

Distribution (TDWG). **Continent.** Europe (*), Africa, Temperate Asia, Tropical Asia, Australasia (*), Pacific, North America, South America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Northern Africa, West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean.** Egypt. Nigeria. Cameroon. Ethiopia (inc. Eritrea). Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Limpopo, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Eastern Cape. Mauritius (*), Madagascar. **Arabian Peninsula.** Gulf States. **Indian Subcontinent, Indo-**

China, Malesia, Papuaia. India, Sri Lanka. Laos, Thailand, Vietnam. Borneo, Philippines, Sumatra. New Guinea West Papua (Irian Jaya). New Guinea. **Australia.** Western Australia (*), Northern Territory (*), Queensland (*), New South Wales (*), Tasmania (*). **South-central Pacific, North-central Pacific.** New Caledonia (*), Tonga (*). Cook Is (*). Hawaii (*). **Mexico.** Central Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica, Northern South America, Western South America, Brazil, Southern South America.** Costa Rica, El Salvador, Guatemala, Honduras, Panama. Venezuela. Bolivia, Colombia, Ecuador, Peru. Brazil West Central, Brazil Southeast, Brazil South. Argentina Northwest, Chile Central.

TDWG4. Andhra Pradesh, Bihar, Daman, Karnataka. Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamilnadu, Uttah Pradesh. Kimberley. Central Australia. North, Central, South East, Inland. Coast, Tablelands, Western Plains. Jujuy (*), Salta, Tucuman. Corrientes, Formosa, Misiones. Valparaiso. Mexico State. Oaxaca. Chiapas, Yucatan.

Eragrostis tephrosanthos Roem. & Schult. *Syst. Mant.* ii. 316. (1824).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Martinique, Carribean. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *F.W. Sieber 33 (Fl. Martin no.)*, no date, Martinique (M; IT: K, MO-201170, P, US-1127056, US-1127055, W).

Illustrations (Books): A.S.Hitchcock, *Manual of the Grasses of the West Indies* (1936) (41, Fig. 19).

Derivation (Clifford & Bostock 2007): Gk. *tephros*, grey; *anthos*, flower. Spikelets grey.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 15–90 cm long. Culm-internodes distally glabrous. Culm-nodes glabrous. Lateral branches ample, arising from lower culm. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.5–0.7 mm long. Leaf-blades flat or involute, 3–21 cm long, 1–5 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, pyramidal, 4–25 cm long, 2–18 cm wide. Primary panicle branches spreading, 1–2 -nate, sparsely divided. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform or linear, 4–10 mm long.

Fertile Spikelets. Spikelets comprising 7–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 4–10.5 mm long, 1.2–1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.5–1.4 mm long, 0.5–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.9–1.7 mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.1–2.1 mm long, membranous, yellow or light green, keeled, 3 -veined, 0–3 -veined. Lemma midvein scabrous. Lemma lateral veins distinct. Lemma surface scaberulous, rough above. Lemma apex acute. Palea 0.75–0.85 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.2–0.3 mm long, purple. Caryopsis with adherent pericarp, ellipsoid or oblong, without sulcus, 0.6–0.7 mm long, dark brown, striate, obtuse.

Distribution (TDWG). Continent. Temperate Asia, North America, South America.

Country /Province /State. China. China Southeast. **North-central USA, Southwestern USA, South-central USA, Southeastern USA, Mexico.** Missouri. Arizona, California. New Mexico, Texas. Alabama, Florida, Georgia, Louisiana, Maryland. Central Mexico, Northeast Mexico, Gulf (Mexico), Northwest Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica, Caribbean, Northern South America, Western South America, Brazil, Southern South America.** Bahamas, Cuba, Dominican Republic, Haiti, Jamaica, Leeward Is, Windward Islands, Puerto Rico, Trinidad-Tobago. Brazil North.

TDWG4. Guangdong, Guangxi. Chaco, Cordoba, Distrito Federal, Entre Rios.

Eragrostis terecaulis S.A. Renvoize. *Gramineas de Bolivia*: 324 (1998).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Bolivia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Lara & Parker 31-E*, (MO).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. teres*, slender; *caulis*, stalk. Culms slender in comparison with those of related species.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms geniculately ascending, 18–26 cm long. Culm-internodes terete. Ligule a fringe of hairs. Leaf-blades involute, 2.5–6 cm long, 0.5–1 mm wide. Leaf-blade surface glabrous. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, 3.5–5.5 cm long, 2–3 cm wide. Primary panicle branches spreading, 1–2 cm long. Panicle branches glandular (in axils). Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–4.5 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1–1.5 mm long, 0.75 length of upper glume, membranous, 1-keeled, 0–1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 1–1.5 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 0–1 -veined. Upper glume primary vein absent or distinct. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile florets appressed to rhachilla. Fertile lemma elliptic, 2 mm long, membranous, grey, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex obtuse or acute. Palea 1.1 length of lemma. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.75 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America. Bolivia.

Eragrostis theinlwinii Bor. *Indian Forest Rec., n. s. Bot.*, iii. 144 (1941).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960).

TYPE from Myanmar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Burma: U Thein Lwin (K holotype).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of U Thein Lwin, Myanmar plant collector.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 30–60 cm long. Culm-internodes glandular, smooth, distally glabrous. Leaf-sheaths mostly shorter than adjacent culm internode, glandular, viscid, smooth, glabrous on surface. Ligule a fringe of hairs. Leaf-blades involute, 7–15 cm long, 3–6 mm wide, glandular, viscid. Leaf-blade surface glabrous. Leaf-blade margins glabrous or ciliate, hairy at base.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, 7–15 cm long, 2–3.5 cm wide. Primary panicle branches not whorled or whorled at lower nodes. Panicle axis scaberulous, glabrous. Panicle branches capillary, glandular, viscid. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 6–10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 3–3.5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume lanceolate, 1.5 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5 mm long, 1 length of adjacent fertile lemma, 1-keeled. Upper glume primary vein scabrous. Upper glume apex acute.

Florets. Fertile lemma elliptic or oblong, 1.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein without distinctive roughness. Lemma margins tuberculate, ciliate. Lemma hairs 0.5–0.75 mm long. Lemma apex apiculate. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, obovoid, 0.5 mm long, light brown.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indo-China. Myanmar.

Eragrostis thollonii Franch. *Bull. Soc. Hist. Nat. Autun*, viii. 383 (1893).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from DRC. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *J. de Brazza & Thollon 4086*, Feb 1891, Congo Francais: dans la plaine de Mpila pres de Brazzavile (US-1064208).

ST: *J. de Brazza & Thollon 59*, Congo: dans la plains de Mpila prhs de Brazzaville.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Francois-Romain Thollon (1855–1896) who collected in the Congo.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous to pubescent, persistent and investing base of culm, with fibrous dead sheaths. Culms erect, 80–150 cm long, 1–4 -noded. Leaf-sheaths glabrous on surface or pilose. Ligule a fringe of hairs. Leaf-blades 8–25 cm long, 2–6 mm wide. Leaf-blade surface glabrous or hispid. Leaf-blade margins scaberulous.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, 11–25 cm long, 4–10 cm wide. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 3–10 mm long.

Fertile Spikelets. Spikelets comprising 5–9 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 4–6.5 mm long, 4–4.5 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 2–2.8 mm long, 0.8–0.9 length of upper glume, membranous, 1-keeled, 3 -veined. Lower glume apex obtuse or acute. Upper glume ovate, 2.3–3.2 mm long, 0.8–0.9 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined. Upper glume apex obtuse or acute.

Florets. Fertile lemma ovate, 2.4–3.3 mm long, membranous, shiny, keeled, 3 -veined, 0–3 -veined. Lemma midvein ciliate, hairy below. Lemma lateral veins distinct. Lemma apex obtuse. Palea obovate. Palea keels winged, conspicuously winged, eciliate. Palea apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 2 mm long. Caryopsis with adherent pericarp, oblong, without sulcus.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, South tropical Africa. Congo, DRC. Angola, Zambia.

Eragrostis toliarensis ms. Judz.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

Eragrostis trachyantha T.A. Cope. *Kew Bull.*, 50(1): 115 (1995).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Somalia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Somalia: Bay, 1.34N, 42.57E, 95 m, 18 Feb 1982, *Beckett & White 1536* (HT: K).

Illustrations (Books): T.A.Cope, in M.Thulin, *Poaceae* (Gramineae). *Flora of Somalia* (1995) (184, Fig 96).

Illustrations (Journals): *Kew Bulletin* (50: 114, Fig.3 (1995)).

Derivation (Clifford & Bostock 2007): Gk. trachys, rough; anthos, flower. Lemmas scabrid.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 20–40 cm long. Ligule a fringe of hairs. Leaf-blades involute, 2–3 mm wide. Leaf-blade margins eglandular.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate or ovate, effuse, 15–30 cm long, 0.66 of culm length. Primary panicle branches distant, simple. Panicle branches eglandular. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–9 mm long, eglandular.

Fertile Spikelets. Spikelets comprising 10–26 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 8–20 mm long, breaking up at maturity, rhachilla persistent, retaining paleas, fragile above, with the distal florets disarticulating separately.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.5–2.2 mm long, 0.75 length of upper glume, eglandular, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 2.3–2.7 mm long, 0.9 length of adjacent fertile lemma, eglandular, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma oblong, 2.3–2.6 mm long, coriaceous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scabrous. Lemma lateral veins thickened. Lemma surface scaberulous, rough on veins. Lemma margins scaberulous. Lemma apex obtuse or acute. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.3 mm long. Caryopsis with adherent pericarp, oblong, 0.7 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa. Somalia.

Eragrostis trachycarpa (Benth.) Domin. *Fedde, Repert.* ix. 552 (1911).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Eragrostis nigra* var. *trachycarpa* Benth., *Fl. Austral.* 7: 643 (1878). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *C. Stuart s.n.*, Australia: New South Wales: New England

ST: *Perrott s.n.*, Australia: New South Wales: Armidale.

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (258), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (171, Fig. 26), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (391, Fig 70), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 172, Fig.2 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): Gk. *trachys*, rough; *karpos*, fruit. Grain pitted.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 40–80 cm long. Leaf-sheaths smooth, glabrous on surface. Leaf-sheath oral hairs scanty or lacking. Ligule a fringe of hairs, 0.25 mm long. Leaf-blades flat or involute, 1–3 mm wide. Leaf-blade surface smooth or scabrous, glabrous.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 15–45 cm long, 8–25 cm wide, 0.5 of culm length. Primary panicle branches spreading. Panicle branches capillary, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 2–25 mm long, scabrous.

Fertile Spikelets. Spikelets comprising 1–6 fertile florets, without rhachilla extension or with a barren rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets, or of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 1.5–5 mm long, 1 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1–1.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume surface smooth or asperulous, rough above. Lower glume apex acute. Upper glume lanceolate, 1–1.5 mm long, 0.66–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume surface smooth or asperulous, rough above. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma surface smooth or scaberulous, rough above. Lemma apex acute. Palea 1 length of lemma. Rhachilla extension 0–1 mm long.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, orbicular, isodiametric, 0.5 mm long.

Distribution (TDWG). Continent. Europe (*), Australasia.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Australia.** Queensland, New South Wales, A.C.T., Victoria.

Central, South East, Inland. Coast, Tablelands.

Eragrostis tracyi Hitchcock. *Am. Journ. Bot.* xxi. 130. (1934).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *S.M. Tracy* 7168, 19 May 1901, USA: Florida: Lee Co.: Sanibel Island (US-441983; IT: US-909970).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Samuel Mills Tracy (1847–1920) United States agronomist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual or perennial, short-lived, caespitose. Culms erect, 30–80 cm long. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades flat or involute, 5–25 cm long, 1–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 10–15 cm long, 5–8 cm wide, 0.25–0.33 of culm length. Primary panicle branches ascending or spreading. Panicle branches flexuous, glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, flexuous, 2–5 mm long.

Fertile Spikelets. Spikelets comprising 9–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 5–10 mm long, 1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, 0.7 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. North-central USA, Southwestern USA, South-central USA, Southeastern USA. Missouri. Arizona, California. New Mexico, Texas. Alabama, Florida, Georgia, Louisiana, Maryland.

Eragrostis tremula Steud. *Syn. Pl. Gram.* 271 (1854).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from Eritrea. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: *Kotschy* 6, 18 Sep 1839, Nubia: in arenosis prope pagum Abu-Gerad (LE).

Illustrations (Books): H.Jacques-Felix, *Les Graminées d'Afrique tropicale* (1962) (198, Fig. 120), R.M.Phillips, F.T.E.A., *Gramineae* (2:196, Fig. 62), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (115, Fig 48), L.Boulos, *Flora of Egypt* 4 (2005) (257, Pl. 76), H.J.Noltie, *The Grasses of Bhutan* (2000) (659, Fig. 33), E.Hafliger & E.Schultz, *Grass Weeds*, CIBA-GEIGY (2:77(1980)).

Derivation (Clifford & Bostock 2007): *L. trembling*. Inflorescence subject to movement in a slight breeze.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 30–100 cm long. Leaves mostly basal. Ligule a fringe of hairs. Leaf-blades 4–20 cm long, 3–5 mm wide. Leaf-blade margins eglandular. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 7–30 cm long. Panicle branches flexuous, eglandular, glabrous in axils or bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, eglandular.

Fertile Spikelets. Spikelets comprising 10–60 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 5–25 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes obscured by lemmas.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume ovate, 0.8–1.2 mm long, 0.6–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.2–1.5 mm long, 0.8–0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent, imbricate to tip. Fertile lemma ovate, 1.5–1.7 mm long, membranous, purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct, midway between midvein and margin. Lemma apex obtuse. Palea 2 -veined. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2, 0.3–0.5 mm long. Stigmas 2. Caryopsis with adherent pericarp, ovoid or orbicular, 0.4–0.6 mm long.

N = 10 (1 ref TROPICOS), or 14 (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa, Temperate Asia, Tropical Asia.

Country /Province /State. Northern Africa, Macaronesia, West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa. Egypt. Cape Verde. Benin, Burkina, Gambia, Ghana, Guinea-Bissau, Guinea, Ivory Coast, Mali, Mauritania, Nigeria, Senegal, Sierre Leone, Togo, Niger. Central African Republic, Gabon, DRC. Eritrea, Ethiopia (inc. Eritrea). Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. **Western Asia, Arabian Peninsula.** Iran. **Indian Subcontinent, Indo-China.** Assam, Eastern Himalaya. Laos, Myanmar, Vietnam.

TDWG4. Kerala. Madhya Pradesh, Orissa, Punjab, Rajasthan, Tamilnadu, Uttah Pradesh, West Bengal. Himachal Pradesh.

Eragrostis triangularis Henrard. *Fedde, Repert.* xxiii. 301 (1927).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Paraguay. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *B. Balansa* 236, 24 Mar 1876, Paraguay: Caaguazu: in campis (L-908.88–310; IT: K, P, US-77378 (fragm.), US-91397 (fragm.)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. tria*, three; *angulus*, angle; *-aris*, pertaining to. Spikelets wedge-shaped in outline.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Cataphylls evident. Rhizomes elongated. Basal innovations extravaginal. Culms erect, 70–100 cm long. Culm-nodes glabrous. Lateral branches sparse, arising from upper culm. Leaf-sheaths smooth. Ligule a fringe of hairs. Leaf-blades conduplicate, 10–20 cm long, 2–4 mm wide. Leaf-blade surface smooth or scaberulous. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle, embraced at base by subtending leaf. Panicle open, elliptic, effuse. Primary panicle branches 1–2 -nate. Panicle axis scaberulous. Panicle branches scabrous, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 10–20 mm long.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets cuneate, laterally compressed, 4 mm long, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes pubescent.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 2 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 3 mm long, 1.2–1.5 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2–2.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins prominent. Lemma apex acute. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil, Southern South America. Brazil Southeast. Paraguay. Sao Paulo Parana.

Eragrostis trichocolea Arech. *An. Mus. Montevideo*, i. 444 (1896).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Uruguay. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: *Arazati* 4929, Feb 1886, Uruguay: San Josi (BAA-3933 (fragm. ex MVFA), MVFA (fragm.)).

Illustrations (Books): A.Burkat, *Flora Ilustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (202, Fig. 72 & 202, Fig 73), B.Rosengurt, *Gramineas Uruguayas I* (1970) (258, Fig. 106).

Derivation (Clifford & Bostock 2007): *Gk. thrix*, hair; *koleos*, sheath. Leaf-sheath invested with white hairs.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Culms erect, 30–60 cm long. Leaves mostly basal. Leaf-sheaths pilose. Ligule a fringe of hairs. Leaf-blades flat or involute, 8–12 cm long, 2–4 mm wide. Leaf-blade surface pilose.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 15–20 cm long. Primary panicle branches spreading. Panicle branches stiff, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 6–12 mm long.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3–4 mm long, 1.5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1–1.2 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.3–1.5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5 mm long, membranous, without keel, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, 0.6 mm long.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. South-central USA, Southeastern USA, Mexico. Texas. Florida. Northeast Mexico. Mesoamerica, Northern South America, Brazil, Southern South America. Brazil Southeast, Brazil South. Argentina Northeast, Argentina Northwest, Uruguay.

TDWG4. Sao Paulo Parana. Catamarca, Jujuy, La Rioja, Mendoza, Salta, San Juan, San Luis. Buenos Aires, Cordoba, Corrientes, Entre Rios, La Pampa, Misiones, Santa Fe. Zacatecas.

Eragrostis trichodes (Nutt.) Wood. *Class-Book Bot.* 796 (1861).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from USA. **Basionym or Replaced Name:** *Poa trichodes* Nutt., *Trans. Amer. Philos. Soc., n.s.,* 5: 146 (1835)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *T. Nuttall s.n.*, USA: Arkansas: bushy prairies and open alluvial lands (PH; IT: US-77391 (fragm.)).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (94), F.W.Gould, *The Grasses of Texas* (1975) (185, Fig. 93).

Images: R.Darke, *Ornamental Grasses* (2004);, R.Darke, *The Encyclopaedia of Grasses for Liveable Landscapes* (2007);.

Derivation (Clifford & Bostock 2007): Gk. thrix, hair; -odes, resembling. Leaf-blades slender.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 60–160 cm long. Leaf-sheaths glabrous on surface or hirsute, outer margin glabrous or hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades 15–40 cm long, 1–8 mm wide. Leaf-blade surface glabrous, hairless except near base.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, effuse, 35–55 cm long, 7–30 cm wide. Primary panicle branches ascending or spreading, 7–20 cm long. Panicle branches capillary, sinuous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 5–15 mm long.

Fertile Spikelets. Spikelets comprising 4–18 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate or ovate, laterally compressed, 4–10 mm long, 1.5–3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.8–4 mm long, 1–1.2 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.8–3.4 mm long, 0.75–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 2.4–3.4 mm long, membranous, yellow or red, mottled with last colour, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, orbicular or square, 0.7–1.5 mm long.

Distribution (TDWG). Continent. Pacific, North America.

Country /Province /State. North-central Pacific. Hawaii. Northwest USA, North-central USA, South-central USA, Southeastern USA. Colorado, Wyoming. Iowa, Kansas, Missouri, Nebraska, Oklahoma. New Mexico, Texas. Louisiana, Mississippi.

Eragrostis trichophora Coss. & Dur. *Bull. Soc. Bot. Fr.* ii. 311 (1855).

Regarded by K as a synonym (*E. cylindriflora*).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Algeria. **Basionym or Replaced Name:** *Poa geniculata* Dur., *Expl. Alger.* t. 40. f. 4 (1849). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Algeria: Coll? ; : Based on *Poa geniculata*.

Illustrations (Books): M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler, *Grasses of New South Wales*, 4th edn (2008) (258), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (77).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): Gk. thrix, hair; phero, carry. Hairy in some respect.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Flower and Fruit. *N* = 30 (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe (*), Africa, North America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **South tropical Africa.** Angola. Namibia, Botswana, Limpopo, North-West, Gauteng, Swaziland, Free State, Kwazulu-Natal, Northern Cape. **Southeastern USA.** Maryland.

Eragrostis tridentata T.A. Cope. *Kew Bull.*, 47(2): 280 (1992).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Somalia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Somalia: Mudug: 17–18 km N of Obbia on rd. to Jirriiban (5.28N 48.32E), 50 m, 28 May 1989, *Thulin & Dahir 6655* (HT: K; IT: UPS).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. tria, three; dens, tooth; -ata, possessing.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms 6–18 cm long. Ligule a fringe of hairs. Leaf-blades 2–3 cm long, 0.5–1 mm wide.

Inflorescence. Inflorescence a panicle, shorter than basal leaves, embraced at base by subtending leaf (2–3 leaves). Panicle capitate, globose, 0.5–1 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 2.2–4.2 mm long, breaking up at maturity, rhachilla persistent, retaining paleas (?). Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.1–1.7 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.1–1.7 mm long, 0.7–0.9 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent. Fertile lemma oblong in profile, 1.6–1.8 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct, excurrent. Lemma apex obtuse. Palea 2 -veined. Palea keels tuberculate, pectinate (hairs 0.5mm). Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2, 0.2 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa. Somalia.

Eragrostis trimucronata Napper. *Kirkia*, iii. 114 (1963).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Tanzania. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Tanzania, Sambala: Burt 2622 (EA holo, K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. tria, three; mucro, small projection; -ata, possessing. Lemma shortly three-awned.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths woolly. Culms erect, 60–90 cm long. Ligule a fringe of hairs. Leaf-blades flat or convolute, 12–45 cm long, 2–4 mm wide, stiff.

Inflorescence. Inflorescence a panicle. Panicle open, linear or oblong, 20–45 cm long, with spikelets clumped along branches. Primary panicle branches distant, simple, 2–9 cm long. Spikelets solitary. Fertile spikelets sessile (subtended by bristles).

Fertile Spikelets. Spikelets comprising 4–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 2.5–3.5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume ovate, 1.5–2.2 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate, mucronate. Upper glume ovate, 1.5–2.2 mm long, 1.1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate, mucronate.

Florets. Fertile lemma oblong, 1.2–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins excurrent. Lemma surface asperulous. Lemma apex truncate, mucronate, 3 -awned. Palea keels tuberculate, ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.6 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa. Tanzania.

Eragrostis triquetra M. Lazarides. *Austral. Syst. Bot.*, 10(1): 162 (1997).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia, Queensland. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Queensland, Cunnamulla: Martensz 1712 (CANB holo).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (374 & 379, Fig 67 & 68), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 173, Fig.3 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): L. triangular. Caryopsis trigonous.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Cataphylls evident. Butt sheaths glossy, pubescent. Culms slender, 16–30 cm long, 2–4 -noded. Culm-internodes eglandular. Lateral branches lacking or sparse. Leaf-sheaths tight, mostly shorter than adjacent culm internode, wider than blade at the collar, eglandular, scaberulous, outer margin hairy. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs, 0.3–0.5 mm long. Collar glabrous or bearded. Leaf-blades curved or flexuous, filiform, convolute, 1–1.5 mm wide. Leaf-blade venation prominent. Leaf-blade surface scabrous, rough adaxially, pilose, hairy on both sides, with tubercle-based hairs. Leaf-blade margins cartilaginous, eglandular, scabrous.

Inflorescence. Inflorescence a panicle. Peduncle eglandular. Panicle contracted, elliptic, 6–10 cm long, 3–4.5 cm wide. Primary panicle branches 1–2 cm long, bearing spikelets almost to the base. Panicle axis eglandular. Panicle branches eglandular, scabrous, glabrous in axils or pubescent in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.3–1.5 mm long, eglandular.

Fertile Spikelets. Spikelets comprising 22–31 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed or subterete, 5–13.5 mm long, 1–1.3 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes zig-zag, 0.5 mm long, eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate or ovate, 1–1.3 mm long, 1 length of upper glume, membranous, without keels or 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex emarginate or obtuse to acuminate. Upper glume lanceolate or ovate, 1–1.3 mm long, 0.75–1 length of adjacent fertile lemma, membranous, without keels or 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex emarginate or obtuse to acuminate.

Florets. Fertile lemma lanceolate, 1–1.8 mm long, membranous or cartilaginous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure or distinct. Lemma surface smooth or scaberulous. Lemma apex emarginate or obtuse, mucicous or mucronate. Palea obovate or oblanceolate, with flaps narrower than body,

bowed outwards, membranous or cartilaginous, 2 -veined. Palea keels adorned above. Palea apex obtuse, scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2 or 3, 0.1–0.2 mm long, retained within floret or eventually exerted. Caryopsis with adherent pericarp, oblong or ovoid, trigonous (curved), stipitate, 0.3–0.6 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland.

North, Central, South East, Inland.

Eragrostis truncata Hack. *Bot. Jahrb.* xi. 405. (1889).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Botswana. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Botswana, Kachun: Marloth 1023.

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):57, t. 24), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (176, Fig 148), M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984).

Derivation (Clifford & Bostock 2007): *L. trunco*, shorten by cutting off. Truncate with respect to apices of lemmas or glumes.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, cushion forming or mat forming. Rhizomes absent or short. Butt sheaths woolly. Culms 20–40 cm long. Ligule a fringe of hairs. Leaf-blades 1–4(–10) cm long, 1–1.5 mm wide, coriaceous, stiff. Leaf-blade apex obtuse or abruptly acute.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 3–8 cm long, contracted about primary branches. Primary panicle branches ascending or spreading, bearing spikelets almost to the base. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 5–7 mm long, 2.5–3 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.5–1.7 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume ovate, 1.5–1.7 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile lemma orbicular, 1.7–2 mm long, chartaceous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex truncate. Palea keels scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.8–1.2 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.7–1 mm long. Embryo 0.4 length of caryopsis.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Namibia, Botswana, North-West, Free State, Northern Cape.

Eragrostis turgida (Schumach.) De Wild., in obs. *Compagnie du Kasai*, 250 (1910).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ghana. **Basionym or Replaced Name:** *Poa turgida* Schumach., *Beskr. Guin. Pl.* 66–67 (1827). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Ghana, Accra Plains: Thonning (C hol).

Illustrations (Books): R.M.Pohill, F.T.E.A., *Gramineae* (2(1974):193, Fig.61).

Derivation (Clifford & Bostock 2007): *L. swollen*. With swollen spikelets.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 8–60 cm long. Ligule a fringe of hairs. Leaf-blades 4–18 cm long, 2–8 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, 3–14 cm long, contracted about primary branches. Primary panicle branches simple, bearing spikelets almost to the base. Panicle branches stiff, eglandular or glandular. Spikelets solitary. Fertile spikelets sessile. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–80 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets ovate or orbicular, laterally compressed, 3–20 mm long, 3–4 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.2–2.5 mm long, 1 length of upper glume, chartaceous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume surface pilose. Lower glume apex acute. Upper glume ovate, 1.2–2.5 mm long, 0.8–1 length of adjacent fertile lemma, chartaceous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume surface pilose. Upper glume apex acute.

Florets. Fertile florets imbricate to tip. Fertile lemma orbicular, hemispherical, 1.5–2.5 mm long, coriaceous, yellow or purple, keeled, 3 -veined, 0–3 -veined. Lemma surface glabrous or hispidulous, hairy below, hairy on veins. Lemma apex obtuse. Palea keels pubescent. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.5 mm long. Caryopsis with adherent pericarp, orbicular, dorsally compressed, plano-convex, 1–1.5 mm long.

Distribution (TDWG). Continent. Africa, Temperate Asia.

Country /Province /State. West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa. Burkina, Ghana, Guinea-Bissau, Guinea, Ivory Coast, Mali, Nigeria, Senegal. Central African Republic, Congo, DRC. Sudan. Uganda. **Arabian Peninsula.** Saudi Arabia.

Eragrostis udawnensis Ohwi. *Acta Phytotax. & Geobot.*, Kyoto, xxii. 139 (1967).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Thailand. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Thailand, Phu Krading; Tagawa, Iwatsuki & Fukuoka T768 (KYO holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From Udawm, Thailand.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial. Glands annular. Culms 30–50 cm long, 1–2 -noded. Culm-internodes smooth. Leaf-sheaths 12–15 cm long, striately veined, smooth, glabrous on surface. Ligule a fringe of hairs. Leaf-blades involute, 6–10 cm long, 3 mm wide. Leaf-blade surface pilose, sparsely hairy.

Inflorescence. Inflorescence a panicle, comprising 10–20 fertile spikelets. Panicle open, lanceolate, 6–10 cm long. Primary panicle branches appressed, 1 -nate, bearing 2–4 fertile spikelets on each lower branch. Panicle branches smooth. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.33–0.5 length of fertile spikelet, glandular.

Fertile Spikelets. Spikelets comprising 5–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, obtuse, 5–6 mm long, 4–5 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 4 mm long, 1 length of upper glume, 1-keeled, 3 -veined. Lower glume primary vein scaberulous. Lower glume apex acute. Upper glume lanceolate, 4 mm long, 0.75–1 length of adjacent fertile lemma, 1-keeled, 3 -veined. Upper glume primary vein scaberulous. Upper glume apex acute.

Florets. Fertile lemma ovate, 4–5 mm long, chartaceous, purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma surface punctate. Lemma apex acute. Palea ovate, 0.9 length of lemma, hyaline. Palea keels ciliolate. Palea apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.2 mm long, purple. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indo-China. Thailand.

Eragrostis unioides (Retz.) Nees ex Steud. *Syn. Pl. Gram.* 264 (1854).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*), N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960), T.Koyama, *Grasses of Japan and its neighboring regions* (1987), W.D.Clayton & N.Snow, Key to Pacific Grasses (2010).

TYPE from India. **Basionym or Replaced Name:** *Poa unioides* Retz., *Observ. Bot.* 5: 19 (1788). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: India: 1776, *Koenig s.n.* (HT: ?; ST: BM, LE).

Illustrations (Books): C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (422), C-C Hsu, *Taiwan Grasses* (1975) (489, Pl. 1405), K.M.Matthew, Further Illustrations on the *Flora of Tamilnadu Carnatic* (1988) (Pl. 783),

H.J.Noltie, *The Grasses of Bhutan* (2000) (661, Fig. 34), H.B.Gilliland, *Grasses of Malaya* (1971) (67, Fig. 7), H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005) (73, Fig. 66), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (362, Fig. 65), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (86), J.A.Steyermark et al, *Flora of the Venezuelan Guayana Vol. 8* (2004) (102, Fig. 66), E.Judziewicz, *Flora of the Guianas*, 187. *Poaceae* (1990) (313, Fig. 55), S-L Chen et al, *Flora of China*, Illustrations, *Poaceae* (2007) (Fig. 677), E.Hafliger & E.Schultz, *Grass Weeds*, CIBA-GEIGY (2:63(1980)).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 174, Fig.4 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, H.B.Gilliland et al., *Flora of Malaya Vol. 3 Grasses* (1971);.

Derivation (Clifford & Bostock 2007): Gk. -oides, like. With spikelets resembling those of *Uniola*.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual or perennial, short-lived, caespitose. Culms geniculately ascending or decumbent, 7–50 cm long, rooting from lower nodes. Ligule a fringe of hairs. Leaf-blades 3–10 cm long, 2–5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 5–12 cm long, 2–6 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 2–10 mm long.

Fertile Spikelets. Spikelets comprising 10–40 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 4–12 mm long, 2–3.4 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1.4 mm long, 0.8–0.9 length of upper glume, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.6 mm long, 1.2 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, ovate in profile, 1.3 mm long, membranous, red or purple, keeled, 3 -veined, 0–3 -veined. Lemma midvein scabrous. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2, 0.3 mm long. Caryopsis with adherent pericarp, ovoid, 0.7 mm long.

$N = 10$ (1 ref TROPICOS), or 30 (2 refs TROPICOS).

Distribution (TDWG). Continent. Africa, Temperate Asia, Tropical Asia, Australasia, Pacific, North America, South America.

Country /Province /State. West tropical Africa, West-central tropical Africa, Western Indian ocean. Guinea, Liberia, Sierre Leone. Mauritius (*), Madagascar. **Arabian Peninsula, China, Eastern Asia.** Oman. China South Central, Hainan, China Southeast. Taiwan. **Indian Subcontinent, Indo-China, Malesia, Papuasia.** Assam, Bangladesh, Eastern Himalaya, India, Pakistan, Sri Lanka, West Himalaya. Andaman Is, Cambodia, Laos, Myanmar, Thailand, Vietnam. Java, Malaya, Singapore, Moluccas, Philippines, Sulawesi, Sumatra. New Guinea West Papua (Irian Jaya). New Guinea, Solomon Is. **Australia.** Queensland. **Southwestern Pacific, North-central Pacific.** Fiji (*), New Caledonia. Caroline Is. Hawaii. **Southeastern USA, Mexico.** Florida, Georgia. Southeast Mexico. **Mesoamerica, Caribbean, Northern South America, Western South America.** Jamaica. French Guiana, Guyana. Ecuador.

TDWG4. Fujian, Jiangxi. Yunnan. Darjeeling, Bhutan, Sikkim. Assam, Meghalaya, Tripura. Andhra Pradesh, Goa, Karnataka, Kerala. Madhya Pradesh, Orissa, Tamilnadu, Uttah Pradesh, West Bengal. North, Central. Chiapas, Tabasco.

Eragrostis urbaniana Hitchcock. *Urb. Symb. Antill.* vii. 167 (1912).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Netherlands. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *W.F.R. Suringar s.n.*, 25 Feb 1885, Netherlands Antilles: Bonaire (US-690359).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ana, indicating connection. In honor of Ignatz Urban (1848–1931) German botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 12–22 cm long. Leaf-sheaths without keel, glabrous on surface, outer margin glabrous or hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.2 mm long. Leaf-blades ascending or spreading, flat or involute, 1.5–6.5 cm long, 1–2 mm wide. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence a panicle. Panicle contracted, oblong, continuous or interrupted, 1–6 cm long, 0.8–1.2 cm wide. Primary panicle branches 0.5–1 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.3–0.6 mm long, glabrous.

Fertile Spikelets. Spikelets comprising 12–18 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear or lanceolate, laterally compressed, 4–8 mm long, 1–2 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.8–1 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse to acuminate. Upper glume ovate, 1–1.2 mm long, 0.66–0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse to acuminate.

Florets. Fertile lemma ovate, 1.2–1.8 mm long, 0.6 mm wide, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute. Palea 1 length of lemma. Palea keels ciliate, with hairs 0.2–0.4 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, ellipsoid, 0.6 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Caribbean. Aruba, Bahamas, Haiti, Leeward Is, Puerto Rico, Venezuelan and Netherlands Antilles.

Eragrostis usambarensis Napper. *Kirkia*, iii. 115 (1963).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Tanzania. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Tanzania, Mkuzi: Greenway 7890 (EA holo, K).

Illustrations (Books): R.M.Phill, F.T.E.A., *Gramineae* (2(1974):193, Fig.61).

Derivation (Clifford & Bostock 2007): *L. -ensis*, denoting origin. From Usambara Mts, Tanzania.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, short-lived, caespitose. Butt sheaths glabrous. Culms decumbent, 40–100 cm long. Ligule a fringe of hairs. Leaf-blades 6–25 cm long, 2–7 mm wide.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear, 12–28 cm long. Primary panicle branches appressed, 4–8 cm long, bearing spikelets almost to the base. Panicle branches flexuous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 2–4 mm long.

Fertile Spikelets. Spikelets comprising 5–16 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3.5–9 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.3–1.6 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.3–1.6 mm long, 0.7–0.8 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets free at tip. Fertile lemma ovate, 1.7–2.3 mm long, cartilaginous, mid-green or grey or purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2, 0.6 mm long. Caryopsis with adherent pericarp, oblong, trigonous, 0.7 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa. Tanzania.

Eragrostis uvida M. Lazarides. *Austral. Syst. Bot.*, 10(1): 164 (1997).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia, Cloncurry to Burketown: Jacobs 1288 (NSW holo, CANB).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (362, Fig 65), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 174, Fig.4 (1997)).

Derivation (Clifford & Bostock 2007): *L. moist*. Grows along the margins of seasonal watercourses.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual or perennial, short-lived, caespitose, clumped densely. Culms erect or geniculately ascending, 47–80(–120) cm long, 2–3 -noded. Culm-internodes terete or channelled, eglandular. Lateral branches sparse. Leaf-sheaths tight, eglandular. Leaf-sheath oral hairs lacking. Ligule a ciliate membrane, 0.3–0.5 mm long. Leaf-blades flat or convolute, 2–4 mm wide. Leaf-blade surface ribbed, smooth, glabrous. Leaf-blade margins cartilaginous, eglandular, scaberulous. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle. Peduncle eglandular. Panicle contracted, linear, interrupted, 18–37 cm long, 1–5 cm wide, 0.5 of culm length. Primary panicle branches ascending or spreading, 1–3 -nate, not whorled or whorled at most nodes, 3–8.5 cm long, naked below or bearing spikelets almost to the base. Panicle axis eglandular. Panicle branches eglandular, scabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–1 mm long, eglandular.

Fertile Spikelets. Spikelets comprising 11–25 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 3.5–8 mm long, 1–1.3 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes zig-zag, 0.2–0.3 mm long.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume oblong or ovate, 0.4–0.6 mm long, 1 length of upper glume, membranous, without keels or 1-keeled, 0–1 -veined. Lower glume lateral veins absent. Lower glume apex emarginate or obtuse. Upper glume oblong or ovate, 0.4–0.6 mm long, 0.6 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex emarginate or obtuse.

Florets. Fertile lemma ovate, 0.7–1 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins ribbed. Lemma apex emarginate or obtuse, muticous or mucronate. Palea oblanceolate, with flaps as wide as body, hyaline, 2 -veined. Palea keels falling well short of apex. Palea apex dentate, 3 -fid, acute, scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2, 0.2 mm long. Caryopsis with adherent pericarp, ovoid, isodiametric, 0.4–0.5 mm long, obtuse.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory, Queensland. Darwin & Gulf. North.

Eragrostis uzondoensis Sanchez-Ken. Kew Bull. 62:513 (2007).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths persistent and investing base of culm, with fibrous dead sheaths. Culms erect, 18–30 cm long. Leaf-sheaths scaberulous, outer margin hairy. Ligule a ciliate membrane, 0.25 mm long. Leaf-blades aciculate, convolute, 8–11 cm long, 0.8–1.2 mm wide, indurate, stiff. Leaf-blade venation with 4 secondary veins. Leaf-blade surface scaberulous, rough on both sides, hispid, densely hairy, hairy on both sides. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Peduncle scaberulous above. Panicle open, linear or lanceolate, 12–17 cm long. Primary panicle branches appressed, 3–4 cm long. Panicle axis scaberulous. Panicle branches scaberulous, pubescent in axils, with insignificant pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, flexuous, 3.5–4 mm long, scaberulous.

Fertile Spikelets. Spikelets comprising 6–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic or oblong, laterally compressed, 3.9–5 mm long, 1.3–1.8 mm wide, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1–1.3 mm long, 0.9 length of upper glume, light brown, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume surface asperulous. Lower glume apex acute. Upper glume ovate, 1.4–1.5 mm long, 0.8 length of adjacent fertile lemma, light brown, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume surface asperulous. Upper glume apex entire or erose, obtuse or acute.

Florets. Fertile lemma lanceolate or ovate, 1.7–1.8 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma surface scaberulous, hispid. Lemma apex acute. Palea keels ciliate, with hairs 0.5–0.6 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, truncate. Anthers 3, 0.7–0.8 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa. Tanzania.

Eragrostis vacillans Rendle. *Cat. Welw. Afr. Pl.* ii. 249. (1899).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Angola. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *Welwitsch 2646*, Angola: Huilla: in fields and among plantations of *Zea mays* near Lopollo

ST: *Welwitsch 7504*, Angola: in short thicket-grown sandy pastures in the Humpatadistrict.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. *vacillo*, wave to and fro. Inflorescence branches slender so readily waving in the breeze.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms geniculately ascending or decumbent, 8–40 cm long, 4–6 -noded. Ligule a fringe of hairs. Leaf-blades 1–6 cm long, 2–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or ovate, effuse, 2–15 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, glandular.

Fertile Spikelets. Spikelets comprising 3–11 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate or orbicular, laterally compressed, 1.5–4 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate or ovate, 0.5–1 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume surface pilose. Lower glume apex acute. Upper glume ovate, 0.75–1.5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume surface pilose. Upper glume apex acute.

Florets. Fertile lemma orbicular, 0.75–1.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma surface pilose. Lemma apex obtuse. Palea keels eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Angola.

Eragrostis vallsiana Boechat & Longhi-Wagner. *Iheringia, Bot.* 51:179 (1998).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Brasilia: Mato Grosso do Sul: Corumba, 19 Nov 1977, *Allem & Vieria 1335* (HT: CEN; IT: MO, US).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. *-ana*, indicating connection. In honor of Jose Francisco Montenegro Valls (1945-) Brazilian agrostologist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 13.5–28 cm long, 2–5 -noded. Culm-internodes eglandular or glandular (below nodes). Lateral branches ample. Leaves cauline. Leaf-sheaths mostly shorter than adjacent culm internode, eglandular or glandular (on midvein), outer margin hairy. Ligule a fringe of hairs, 0.7–0.8 mm long. Leaf-blades 1–6 cm long, 1.5–3.2 mm wide, eglandular or glandular (on midvein). Leaf-blade surface smooth, pilose, hairy on both sides. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle, terminal and axillary. Peduncle eglandular or glandular (above). Panicle open, oblong, dense, 8–9.5 cm long, 2.5–5 cm wide. Primary panicle branches ascending, 1 -nate, 2–3 cm long, bearing spikelets almost to the base. Panicle axis smooth or scaberulous or tuberculate, with scattered hairs or glabrous. Panicle branches glabrous in axils or bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, glandular, smooth or scaberulous.

Fertile Spikelets. Spikelets comprising 9–28 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, laterally compressed, 3.9–9.5 mm long, 1–1.1 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas. Rhachilla internodes obscured by lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 0.8–1.1 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.8–1.3 mm long, 0.5 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets appressed to rachilla. Fertile lemma ovate, 1–1.2 mm long, 0.3–0.6 mm wide, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma lateral veins obscure. Lemma apex acute. Palea 0.8–1 mm long. Palea keels ciliolate, adorned above, with 0.66 of their length adorned. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2, 0.2 mm long, purple. Caryopsis with adherent pericarp, ellipsoid, without sulcus, 0.4–0.6 mm long, light brown, reticulate, obtuse. Embryo 0.5 length of caryopsis.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil. Brazil West Central, Brazil North, Brazil Southeast.

Eragrostis variabilis (Gaud.) Steud. *Nom. Bot. ed 2*, 1:564 (1840).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Hawaii. **Basionym or Replaced Name:** *Poa variabilis* Gaudich., *Voy. Uranie* 408 (1826) [1829]

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Hawaii: Coll?.

Illustrations (Books): W.L.Wagner et al., *Manual of the Flowering Plants of Hawai'i*, Vol. 2 (1990) (1544, Pl. 228).

Derivation (Clifford & Bostock 2007): *L. varius*, variable; -abilis, indicating capacity. Species polymorphic and usually with many varieties.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms erect, robust, 40–80 cm long. Ligule a fringe of hairs. Leaf-blades erect, involute, 25–50 cm long, 4–10 mm wide, coriaceous, stiff. Leaf-blade apex filiform.

Inflorescence. Inflorescence a panicle. Panicle contracted or spiciform, linear or lanceolate, 10–40 cm long. Panicle branches scabrous, glabrous in axils or bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, smooth or scaberulous.

Fertile Spikelets. Spikelets comprising 8–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–10 mm long, breaking up at maturity, rachilla persistent, retaining paleas. Rachilla internodes glabrous or pubescent.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 2–3 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acuminate or attenuate. Upper glume ovate, 2–3 mm long, 0.8–1 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined. Upper glume primary vein scaberulous. Upper glume apex acuminate or attenuate.

Florets. Fertile lemma elliptic, 2.5–3 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma apex acuminate. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1.2 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Pacific.

Country /Province /State. North-central Pacific. Hawaii.

Eragrostis variegata Welw. ex Rendle. *Cat. Welw. Afr. Pl.* ii. 251. (1899).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Angola. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Angola, Vila de Mossamedes: Welwitsch 2300 (K iso).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. variegatio*, diversify. Spikelets, leaf-blades or stems variable in color.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms geniculately ascending or decumbent, 15–40 cm long, 4-noded. Culm-nodes pubescent. Ligule a fringe of hairs. Leaf-blades 2–6 cm long, 1–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, dense, 6–12 cm long. Panicle axis pubescent. Panicle branches pubescent. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 20–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile.

Spikelets oblong or ovate, laterally compressed, 10–15 mm long, falling entire. Rhachilla internodes obscured by lemmas.

Glumes. Glumes similar, shorter than spikelet. Lower glume ovate, 3 mm long, 0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex setaceously acuminate. Upper glume ovate, 3.5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex setaceously acuminate.

Florets. Fertile lemma ovate, 3–4 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex setaceously acuminate or cuspidate, mucicous or mucronate or awned, 1 -awned. Principal lemma awn 0–0.5 mm long overall. Palea keels scaberulous, eciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.75 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Angola.

Eragrostis vatovae (Chiov.) S.M. Phillips. *Kew Bull.*, 37(1): 159 (1982).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Somalia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Somalia Italiana meridionale: Baidoa, 1 ottobre 1937., *A. Vatova* 10 (HT: FI) ; Somalia, Baidoa: Vatova 10.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of A. Vatova who collected in Eritrea.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms 8–18 cm long. Ligule a fringe of hairs. Leaf-blades 4–10 cm long, 1–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate, 8 cm long, contracted about primary branches. Primary panicle branches simple, bearing spikelets almost to the base. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong.

Fertile Spikelets. Spikelets comprising 10–16 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 11 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, exceeding apex of florets or reaching apex of florets. Lower glume lanceolate, 3–3.5 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume lanceolate, 3–3.5 mm long, 1–1.1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile florets divergent, free at tip. Fertile lemma ovate, gibbous, 3 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Palea 2 -veined. Palea keels scabrous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa. Somalia.

Eragrostis venustula Cope. *Kew Bull.* 53:160 (1998).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Zambia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Zambia: Mongu Distr.: Barotseland, Mongu, 29 Jan 1966, *E.A. Robinson* 6821 (HT: K; IT: SRGH).

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):58, t. 25).

Illustrations (Journals): *Kew Bulletin* (161, fig.7. (1998)).

Derivation (Clifford & Bostock 2007): *L. venusta*, beautiful; -ula, diminutive. The small and pendulous spikelets giving the plant an attractive appearance.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose, clumped loosely. Butt sheaths glabrous or sparsely hairy. Glands sunken crateriform, or elongated. Culms erect or geniculately ascending, 15–35 cm long. Culm-internodes eglandular or glandular. Culm-nodes glabrous. Lateral branches lacking or sparse. Leaf-sheaths

glandular, without keel, pilose. Ligule a fringe of hairs. Leaf-blades flat, 2–8 cm long, 1–3.5 mm wide, eglandular. Leaf-blade surface pilose, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or oblong, loose, 4–14 cm long. Primary panicle branches ascending. Panicle branches stiff, eglandular, glabrous in axils, with insignificant pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, straight, 3–5.5 mm long, glandular.

Fertile Spikelets. Spikelets comprising 5–16 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, compressed slightly, 2–3.5 mm long, 1.2–1.8 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas, tough throughout or fragile above. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate or oblong, 0.4–0.6 mm long, 0.5 length of upper glume, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume elliptic or oblong, 0.9–1.1 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume margins villous. Upper glume apex acute.

Florets. Fertile florets divergent. Fertile lemma elliptic or oblong, 1–1.3 mm long, membranous, pallid or purple, suffused with last colour or tipped with last colour, keeled, lightly keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma surface asperulous, pilose, hairy on veins, with tubercle-based hairs. Lemma apex obtuse. Palea 2 -veined. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.15–0.3(–0.5) mm long. Caryopsis with adherent pericarp, orbicular, dorsally compressed, 0.4–0.5 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. South tropical Africa. Angola. Namibia.

Eragrostis vernix Boechat & Longhi-Wagner. *Iheringia, Bot.* 51:181 (1998).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Brasilia: Pernambuco: Garanhuns, 18 Aug 1969, *Tensrio 69–808* (HT: IPA).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. varnish. Spikelets glossy.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 23–37 cm long, 3–4 -noded. Leaves cauline. Leaf-sheaths mostly shorter than adjacent culm internode, glabrous on surface. Ligule a fringe of hairs. Leaf-blades 7–15 cm long, 2–3 mm wide. Leaf-blade surface smooth, pilose, hairy adaxially or on both sides. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, oblong, dense, 6–9 cm long, 3–4.8 cm wide. Primary panicle branches ascending, profusely divided, 3–4 cm long, naked below or bearing spikelets almost to the base. Panicle branches bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, scabrous.

Fertile Spikelets. Spikelets comprising (5–)9–13 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, laterally compressed, 4.2–7 mm long, 2–3.2 mm wide, breaking up at maturity, rhachilla deciduous, disarticulating below groups of fertile florets. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1.1–2.1 mm long, 0.7–0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume surface scabrous. Lower glume apex acute. Upper glume ovate, 1.5–2.5 mm long, 0.75–1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume primary vein scabrous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent. Fertile lemma ovate, 2–2.5 mm long, 0.5–0.9 mm wide, membranous, grey, shiny, keeled, 3 -veined, 0–3 -veined. Lemma midvein scabrous. Lemma lateral veins distinct. Lemma apex acute. Palea 1.5–2 mm long. Palea keels ciliolate, adorned all along. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 2, 0.2 mm long, brown. Caryopsis with adherent pericarp, ellipsoid or ovoid, without sulcus, 0.6–0.8 mm long, dark brown, reticulate, obtuse. Embryo 0.5 length of caryopsis.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil. Brazil Northeast.

Eragrostis viguieri A. Camus. Bull. Soc. Bot. France. 102: 347 (1956).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Madagascar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Madagascar, Tamatave: Viguier & Humbert 385.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 30–40 cm long. Leaf-sheaths striately veined, smooth, glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule absent. Leaf-blades flat or involute, 4–6 cm long, 3–4 mm wide. Leaf-blade surface glabrous or pilose, sparsely hairy. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear, 8–10 cm long, 0.8–1 cm wide. Primary panicle branches 1–2-nate, 1–2.5 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 9–11 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 5–6 mm long, 1.2–1.6 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes 1.5–1.7 mm long, glabrous.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1–1.2 mm long, 0.75 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5–1.6 mm long, 0.75 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.8–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute. Palea 1.5 mm long. Apical sterile florets resembling fertile though underdeveloped.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Western Indian ocean. Madagascar.

TDWG4.

Eragrostis viscosa Scribn., non Trin.(1830). *U.S. Dept. Agric. Bull. Agrost.* xi. 51. (1898).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from India. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: India: Deccan Peninsula?, *Koenig s.n. in Herb. Retzius* (HT: LD; IT: BM, K (fragm.)).

Illustrations (Books): G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):56, T. 23), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (181, Fig. 155), K.M.Mathew, *Further Illustrations on the Flora of Tamilnadu Carnatic* (1988) (Pl. 784), H.J.Noltie, *The Grasses of Bhutan* (2000) (661, Fig. 34), J.A.Steyermark et al, *Flora of the Venezuelan Guayana* Vol. 8 (2004) (103, Fig. 67).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. sticky. Panicle-branches or foliage sticky.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 10–40 cm long. Leaf-sheaths viscid. Ligule a fringe of hairs. Leaf-blades 4–10 cm long, 2–5 mm wide, viscid.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, 4–15 cm long. Panicle branches glandular, viscid, glabrous in axils or bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 5–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 1.5–4.5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume ovate, 0.6–1.2 mm long, 1 length of upper glume, glandular (on keel), viscid, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.6–1.2 mm long, 1 length of adjacent fertile lemma, glandular (on keel), viscid, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic or oblong, 0.7–1.4 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse, muticous or mucronate (obscurely). Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 0.2–0.3 mm long. Caryopsis with adherent pericarp, ellipsoid, 0.5–0.7 mm long.

$N = 8$ (1 ref TROPICOS). $2n = 60$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa, Temperate Asia, Tropical Asia, North America, South America.

Country /Province /State. West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Middle Atlantic ocean. Nigeria. DRC. Ethiopia (inc. Eritrea), Socotra. Kenya, Tanzania. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Northern Cape. Ascension. Arabian Peninsula. Oman. Indian Subcontinent, Indo-China, Malesia. Assam, Bangladesh, Eastern Himalaya, India, Pakistan, Sri Lanka, West Himalaya. Myanmar, Thailand, Vietnam. Lesser Sunda Is, Malaya, Philippines, Singapore. Mexico. Central Mexico, Northeast Mexico, Northwest Mexico, Southwest Mexico, Southeast Mexico. Mesoamerica, Western South America. Costa Rica, Guatemala, Honduras, Panama. Colombia, Ecuador.

TDWG4. Bhutan. Andhra Pradesh, Bihar, Daman, Karnataka, Kerala. Maharashtra, Orissa, Rajasthan, Tamilnadu, Uttah Pradesh, West Bengal. Himachal Pradesh. Distrito Federal, Mexico State, Morelos. Durango. Veracruz. Baja California, Baja California Sur, Sinaloa. Guerrero, Jalisco, Michoacan, Nayarit, Oaxaca. Campeche, Chiapas, Tabasco.

Eragrostis volkensii Pilger. *Engl. Jahrb.* xliii. 95 (1909).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Tanzania. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Tanzania, Kilimanjaro, Marangu: Volkens 713 (K iso).

Illustrations (Books): R.M.Polhill, F.T.E.A., *Gramineae* (2(1974):193, Fig.61), G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):58, t. 25).

Derivation (Clifford & Bostock 2007): in honor of Georg Ludwig August Volkens (1855–1917) German botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms prostrate, 40–120 cm long, wiry. Leaves cauline. Ligule a fringe of hairs. Leaf-blades reflexed, flat or convolute, 2–8 cm long, 1–5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 3–13 cm long. Primary panicle branches spreading, simple, bearing spikelets almost to the base. Panicle branches stiff. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong, 1–3 mm long.

Fertile Spikelets. Spikelets comprising 6–13 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 3.5–7 mm long, 1.5–4 mm wide, breaking up at maturity, rhachilla persistent, shedding paleas. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.9–1.2 mm long, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.9–1.2 mm long, 0.5–0.7 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma orbicular or oblate, ovate in profile, 1.3–2.5 mm long, cartilaginous, dark green, shiny, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma apex obtuse. Palea keels winged, conspicuously winged, scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, 1 mm long. Caryopsis with adherent pericarp, ovoid, 1 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa. Nigeria. Cameroon, DRC. Ethiopia (inc. Eritrea). Kenya, Tanzania, Uganda. Malawi, Mozambique, Zambia, Zimbabwe. Mpumalanga.

Eragrostis vulcanica Jedwabnick. *Bot. Archiv.*, v. 188 (1924).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Naumann s.n.*, Nova Britannia: ad portum Blanche in monte ignivoro (B).

ST: *Anon.*, Neu-Ireland (B).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. vulcanus*, volcana; *-alis*, pertaining to. Growing on the slopes of Chiriqui, a volcano in Panama.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms erect, 50 cm long. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheaths mostly shorter than adjacent culm internode, without keel, inner surface glabrous. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs. Leaf-blades erect, 1–2 mm wide. Leaf-blade margins smooth. Leaf-blade apex attenuate, filiform.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate, 30 cm long, 7 cm wide. Primary panicle branches appressed or ascending, bearing spikelets almost to the base. Panicle axis smooth. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 10 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, acute, 5 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1 mm long, 0.66 length of upper glume, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.5 mm long, 0.75–1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.5–2 mm long, chartaceous, keeled, 3 -veined, 0–3 -veined. Lemma midvein scaberulous. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Papuaasia. Bismark Archipelago.

Eragrostis walteri ?Genus Pilger. *Notizbl. Bot. Gart. Berlin*, xv. 452 . (1940).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: T: *Walter 458*, Kleiner Naukluftrivier.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of either H. or E. Walter (fl. 1937) German botanists.

Classification. Subfamily Arundinoideae. Tribe: Arundineae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, culms solitary or mat forming or caespitose. Culms erect or geniculately ascending or decumbent, 20–110 cm long. Ligule a fringe of hairs. Leaf-blades convolute, 5–10 cm long, 2–4.5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 7–8 cm long, contracted about primary branches. Primary panicle branches bearing spikelets almost to the base. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 7–15 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong or ovate, laterally compressed, 4–7 mm long, 1.5–3 mm wide, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 2.25 mm long, 1 length of upper glume, membranous, 1-keeled, 3 -veined. Lower glume apex setaceously acuminate. Upper glume ovate, 2.25 mm long, 1.1 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined. Upper glume apex setaceously acuminate.

Florets. Fertile lemma ovate, lanceolate in profile, 2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins prominent. Lemma apex acute or acuminate, muticous or mucronate. Palea keels thickened, eciliate. Palea apex with excurrent keel veins. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Anthers 3, 0.6–1 mm long. Caryopsis with adherent pericarp, ellipsoid.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. Namibia.

Eragrostis warburgii Hack. *Bot. Jahrb.* xiii. 262. (1891).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, J.F.Veldkamp, *Poaceae ms (Flora Malesiana)*.

TYPE from Indonesia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *O. Warburg 17049*, Indonesia: Moluccas: Maluku: Dula, Pulau (W; ILT: L (fragm.)). LT designated by Veldkamp, *Blumea* 47(1): 189 (2002).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Otto Warburg (1859–1938) German botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose, clumped densely. Culms erect or geniculately ascending, 50–70 cm long, 5–6 -noded, with 0.5 of their length below uppermost node. Leaf-sheaths mostly shorter than adjacent culm internode, striately veined, glabrous on surface, outer margin hairy. Ligule a fringe of hairs. Leaf-blades 8–11 cm long, 1–5 mm wide, stiff. Leaf-blade margins ciliate, hairy at base. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle, embraced at base by subtending leaf. Panicle contracted, linear or oblong, loose, 25 cm long, 1 cm wide. Primary panicle branches 1 -nate. Panicle axis smooth. Panicle branches capillary, glabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 6–12 mm long, 2–3 length of fertile spikelet.

Fertile Spikelets. Spikelets comprising 5–7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, 3–4 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 0.7–0.8 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma elliptic or oblong, 1.5–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins close to margins. Lemma surface puberulous. Lemma apex truncate, mucronate. Palea keels ciliolate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 2. Caryopsis with adherent pericarp.

Distribution (TDWG), Continent. Tropical Asia.

Country /Province /State. Malesia. Java, Lesser Sunda Is, Malaya, Moluccas, Sulawesi.

Eragrostis warmingii Hack. *Oesterr. Bot. Zeitschr.* 1902, 305. (1902).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online.

TYPE from Venezuela. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: *J.E.B. Warmingii 315*, 1891–1892, Venezuela: Las Trincheras (US-79729).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Johannes Eugenius Blow Warming (1841–1924) Danish botanist.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual. Culms geniculately ascending, 40–50 cm long. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs. Leaf-blades 6–10 cm long, 3–4 mm wide, glaucous. Leaf-blade surface glabrous. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, dense, 10–12 cm long, 3–5 cm wide, contracted about primary branches. Primary panicle branches spreading, 1 -nate, 1–2.5 cm long, bearing spikelets almost to the base. Panicle branches scabrous, glabrous in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 7 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3 mm long, breaking up at maturity, rhachilla deciduous, disarticulating below each fertile floret.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 1 mm long, 0.66 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume ovate, 1.5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex obtuse.

Florets. Fertile lemma oblong, 1.5 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma surface scabrous, rough on veins. Lemma apex acute. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp, oblong, 0.66 mm long, obtuse.

Distribution (TDWG), Continent. South America.

Country /Province /State. Northern South America. Venezuela.

Eragrostis weberbaueri Pilger. *Engl. Jahrb.* vii. 375 (1906).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Peru. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *A. Weberbauer 3189*, 29 May 1903, Peru: Ancash: Pampa Roman entre Samanco y Caraz, 2300 m (B; IT: BAA-1110 (fragm. ex B), US-2767411).

Illustrations (Journals): *Ann. Missouri Bot. Gard.* (94: 780 fig 19 (2007)), *Ruizia* (13:245, Fig 28j-l (1993)).

Derivation (Clifford & Bostock 2007): in honor of August Weberbauer (1871–1948) German botanist resident in Peru.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, slender, 20–30 cm long. Ligule a fringe of hairs. Leaf-blades flat or involute, 3–8 cm long, 2–3 mm wide. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle spiciform, linear or oblong, interrupted, 3–6 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 4–6 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 3–4 mm long, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.8 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.1 mm long, 0.5 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma ovate, 1.8–2 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma surface scaberulous. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Southern South America. Peru. Chile North. Tarapaca, Antofagasta.

Eragrostis welwitschii Rendle. *Cat. Welw. Afr. Pl.* ii. 234. (1899).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Angola. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Welwitsch 2961*, Angola (LISU).

Illustrations (Books): R.M.Phillips, F.T.E.A., *Gramineae* (2:196, Fig.62), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (120, Fig 49).

Derivation (Clifford & Bostock 2007): in honor of Friedrich Martin Josef Welwitsch (1806–72) Austrian-born botanist, physician and traveller.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 6–60 cm long. Ligule a fringe of hairs. Leaf-blades 2.5–15 cm long, 2–3 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, dense or loose, 2.5–16 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 6–30 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 3.5–9 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume lanceolate, 1 mm long, 0.6–0.7 length of upper glume, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 1.5 mm long, 0.8–1 length of adjacent fertile lemma, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile florets divergent, free at tip. Fertile lemma ovate, 1.5–1.8 mm long, membranous, purple, keeled, 3 -veined, 0–3 -veined. Lemma lateral veins distinct. Lemma apex acute. Palea keels scaberulous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers (2–)3, 0.3 mm long. Caryopsis with adherent pericarp, orbicular, isodiametric, 0.3–0.5 mm long.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa. Ghana, Liberia, Nigeria, Sierre Leone. Burundi, Cameroon, Congo, DRC. Ethiopia (inc. Eritrea). Tanzania. Angola, Malawi, Mozambique, Zambia, Zimbabwe.

Eragrostis xerophila Domin. *Journ. Linn. Soc., Bot.* xli. 281 (1912).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: North W. Australia: inter fl. Ashburten et De Gray, *E. Clement s.n.*

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (383, Fig 318), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (123, Pl 35), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler, *Grasses of New South Wales*, 4th edn (2008) (258), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (362, Fig 65), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Austr. Syst. Bot.* (10: 174, Fig.4 (1997)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): Gk. xeros, dry; phileo, love. Desert species.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Rhizomes elongated, knotty, scaly, glabrous or woolly. Culms erect, 30–40 cm long, 10–20 -noded. Leaf-sheaths longer than adjacent culm internode. Ligule a fringe of hairs. Leaf-blades curved, 2–8 cm long, 0.5–1 mm wide, stiff.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear, interrupted, 5–10 cm long, 0.6 cm wide, contracted about primary branches. Primary panicle branches appressed, 0.5–3 cm long, bearing spikelets almost to the base. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 8–20 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–12 mm long, 1.5–2 mm wide, breaking up at maturity, rhachilla persistent, retaining paleas.

Glumes. Glumes deciduous, similar, shorter than spikelet. Lower glume ovate, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acute.

Florets. Fertile lemma oblong, 1.5–2.25 mm long, membranous, keeled, 3 -veined, 0–3 -veined. Lemma surface smooth or scaberulous. Lemma apex acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, cuneate, fleshy. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, South Australia, Queensland, New South Wales.

Kimberley, Ereman, South-West. Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre, Southern. North, Central, Inland. Western Plains.

Eragrostis x pseudobtusa De Winter. *Bothalia*, 7: 474 (1961).

Illustrations (Books): G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (158, Fig 91).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): Gk *pseudos*, false. Intermediate between *Eragrostis obtusa* and *Eragrostis echinochiloidea*.

Classification. Subfamily Chloridoideae. Tribe: Eragrostideae.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Southern Africa. North-West, Free State, Northern Cape.

Eremitis parviflora (Trinius) C.E. Calderon & T.R.Soderstrom. *Smithsonian Contrib. Bot.*, 44: 20 (1980).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. **Basionym or Replaced Name:** *Pariana parviflora* Trin., *Mem. Acad. Imp. Sci. Saint-Petersbourg, Ser. 6, Sci. Math., Seconde Pt. Sci. Nat.* 3,1(2–3): 105 (1834)

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: (LE). V.C.Hollwell 25 June 1989 (HT for *Eremitis parviflora*) Orig.label:"Parianae sp. (parvifloram dixi ad specimina a Riedelis mihi data, evdemmuch incompleta)".

T: *Riedel 1591 & 165*, March 1822, Brazil: Castelnoso (LE). V.C.Hollwell 1989 (IT!).

HT: *Riedel s.n.*, 1831, Brazil: Bahia (LE-TRIN-3158.01).

Recent Synonyms: *Eremitis monathalamia* Döll. nom superfl in *Mart Fl. Bras.* 2 II. 338. I. 48 (1877).

Illustrations (Books): S.A.Renvoize, *The Grasses of Bahia*, 1984 (41, Fig.13).

Derivation (Clifford & Bostock 2007): *L. parvus*, small; flos, flower. Spikelets small or with few florets.

Classification. Subfamily Bambusoideae. Tribe: Olyreae.

Habit, Vegetative Morphology. Perennial. Culms erect, 50–60 cm long. Leaf-sheath oral hairs setose, 8–20 mm long. Ligule a ciliolate membrane. Leaf-blade base with a brief petiole-like connection to sheath. Leaf-blades lanceolate or oblong, 9–15 cm long, 15–40 mm wide. Leaf-blade apex acuminate. Monoecious, with male and female spikelets in the same inflorescence.

Inflorescence. Inflorescence composed of racemes, enclosed. Racemes 1, single, multilateral, 2.5 cm long, bearing few fertile spikelets, bearing 1 fertile spikelets on each. Rhachis fragile at the nodes. Sexes mixed (in a cluster at each node). Spikelets subtended by an involucre. Fertile spikelets sessile, 1 in the cluster. Male spikelets pedicelled, 5 in a cluster. Involucre composed of imperfect spikelets, with pedicels forming a long tube, linear, 2 mm long. Pedicels present, fused to each other, united along margins, linear, flattened, 14 mm long, tip rectangular.

Sterile Spikelets. Basal sterile spikelets rudimentary, 1–2 in number.

Fertile Spikelets. Spikelets comprising 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets laterally compressed, compressed slightly, falling entire, deciduous with accessory branch structures.

Glumes. Glumes similar, thinner than fertile lemma. Lower glume linear. Upper glume linear.

Florets. Fertile florets female.

Flower and Fruit. Lodicules 3. Anthers 2. Filaments united in a tube. Stigmas 2.

Male spikelets deciduous with the fertile, 5 mm long.

Cleistogenes present, underground.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil. Brazil Northeast, Brazil Southeast.

TDWG4. Bahia.

Eremocaulon amazonicum Londono. *Syst Bot.* 27::716 (2002).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *B.A. Krukoff 7273*, 15–17 Nov 1934, Brazil: Amazonas: Mun. Humaita: between Monte Christo and Santa Victoria on Ixpixuna River, margin of river, herb 10 ft high, "Taboea," flowers (US; IT: F, K, MO-1290018, NY).

Illustrations (Journals): *Systematic Botany* (27, 717, Fig.6 (2002)).

Derivation (Clifford & Bostock 2007): *L. -ica*, belonging to. From Amazonas Province, Brazil.

Classification. Subfamily Bambusoideae. Tribe: Bambuseae.

Habit, Vegetative Morphology. Perennial, woody bamboo. Butt sheaths absent. Culms leaning, 300–600 cm long, 10–30 mm diam., woody. Culm-internodes terete, thick-walled or solid, 20–30 cm long, distally pubescent. Culm-nodes without obvious supra-nodal ridge. Lateral branches dendroid, arising from mid culm. Branch complement three or several, with 1 branch dominant. Culm-sheaths present, persistent, 7.5–19 cm long, 1.5 times as long as wide, pubescent, auriculate, with 5–20 mm high auricles, with 3–5 mm wide auricles, setose on shoulders, shoulders with 20–30 mm long hairs. Culm-sheath ligule 2–3 mm high. Culm-sheath blade triangular, erect or spreading or reflexed, 5.5–12 cm long, 7–15 mm wide, pubescent, mucronate. Leaves cauline, 5–11 per branch. Leaf-sheaths pubescent, outer margin hairy. Leaf-sheath oral hairs setose, curly, 5–25 mm long. Leaf-sheath auricles falcate, 2–6 mm long. Ligule an eciliate membrane, 0.8–2 mm long, bilobed. Collar with external ligule. Leaf-blade base with a brief petiole-like connection to sheath, petiole 0.1–0.4 cm long, petiole pubescent. Leaf-blades deciduous at the ligule, linear or lanceolate, 7–33 cm long, 4–17 mm wide. Leaf-blade midrib conspicuous. Leaf-blade venation with 8–22 secondary veins. Leaf-blade surface pilose, sparsely hairy, hairy adaxially.

Inflorescence. Synflorescence bractiferous, clustered at the nodes, in stellate clusters, 2–2.8 cm long, glabrous on internodes, with glumaceous subtending bracts, with axillary buds at base of spikelet, prophyllate below lateral spikelets, 30 cm long overall.

Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1–3 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets, or of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets lanceolate, laterally compressed, 10–17 mm long, 4–6 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes 1–1.5 mm long, pubescent.

Glumes. Glumes several, comprising 0–4 gemmiferous bracts, 0–2 empty glumes, persistent, similar, shorter than spikelet, firmer than fertile lemma. Upper glume ovate, 3.5–7 mm long, coriaceous, without keels, 5–12 -veined. Upper glume surface pubescent. Upper glume margins ciliate. Upper glume mucronate.

Florets. Fertile lemma ovate, 7–11 mm long, 3.5–6 mm wide, chartaceous, without keel, 10–17 -veined, more than 3-veined. Lemma surface pubescent. Lemma margins ciliolate, hairy above. Lemma apex mucronate. Palea 9–14 mm long, chartaceous, 11–15 -veined, 2-keeled. Palea keels winged, narrowly winged. Palea surface pilose, hairy on margins. Apical sterile florets 1 in number, rudimentary.

Flower and Fruit. Lodicules 3, 1.5–2.5 mm long. Anthers 6, 2–5 mm long. Stigmas 2–3. Ovary pubescent on apex. Caryopsis with adherent pericarp, ellipsoid, 5–6 mm long. Hilum linear, 1 length of caryopsis.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil. Brazil North.

Eremocaulon asymmetricum (Soderstr. & Lond.) Londono. *Syst Bot.* 27::711 (2002).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. **Basionym or Replaced Name:** *Criciuma asymmetrica* Soderstr. & Londoqo, *Amer. J. Bot.* 74(1): 35, f. 1, 2, 5a, 5b (1987)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *C.E. Caldersn & T.S. Santos 2486*, 26 Feb 1979, Brazil: Bahia: Mun. de Una: 12 km N of Una City, road Una-Olivenga, fazenda of Clovis do Matos Piris, elev. 75 m, flowers (CEPEC; IT: CANB, COL, DD, INPA, ISC, K, LE, MO, P, PE, PRE, US-3013847, US-3013846).

Recent Synonyms: *Criciuma asymmetrica* T.R. Soderstrom & X. Londono, *Amer. J. Bot.*, 74(1): 35 (1987).

Illustrations (Books): E.J.Judziewicz et al, *American Bamboos* (1999) (235, Fig. 138 as *Criciuma*).

Illustrations (Journals): *Systematic Botany* (27, 712, Fig.4; 713, Fig.5 (2002)).

Classification. Subfamily Bambusoideae. Tribe: Bambuseae.

Habit, Vegetative Morphology. Perennial, woody bamboo, culms solitary. Rhizomes elongated, pachymorph. Butt sheaths absent. Culms scandent, 1500–2000 cm long, 7–10 mm diam., woody. Culm-internodes terete, solid, 40–70 cm long. Lateral branches dendroid. Bud complement 1. Branch complement three or several, in a clump, subtended by a bare patch above the node, with 1 branch dominant. Culm-sheaths present, persistent, without auricles or auriculate, setose on shoulders. Culm-sheath ligule 1 mm high, ciliate. Culm-sheath blade lanceolate, reflexed, 8–10.5 cm long. Leaves cauline, 7–12 per branch. Leaf-sheaths outer margin hairy. Leaf-sheath oral hairs setose. Ligule a ciliolate membrane, 0.5–1 mm long. Collar with external ligule. Leaf-blade base asymmetrical. Leaf-blades deciduous at the ligule, lanceolate, 17.5–27.5 cm long, 11–18 mm wide. Leaf-blade venation with distinct cross veins.

Inflorescence. Synflorescence bractiferous, scanty, 20–40 cm long, with glumaceous subtending bracts, without axillary buds at base of spikelet, prophyllate below lateral spikelets.

Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–11 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 57–200 mm long, 6 mm wide, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes several, 1–3 empty glumes, persistent, similar, firmer than fertile lemma. Upper glume lanceolate, 13–15 mm long, coriaceous, without keels, 24–26 -veined. Upper glume margins ciliate. Upper glume apex obtuse.

Florets. Fertile lemma ovate, 16–21 mm long, chartaceous, without keel, 34–35 -veined, more than 3-veined. Lemma lateral veins with cross-veins. Lemma margins ciliate. Lemma apex obtuse. Palea chartaceous, 14–18 -veined. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 3, veined, ciliate. Anthers 6. Stigmas 2. Ovary glabrous. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil. Brazil Northeast.

Eremocaulon aureofimbriatum T.R. Soderstrom & X. Londono. *Amer. J. Bot.*, 74(1): 37 (1987).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: C.E. Caldersn, T.S. Santos & L.B. de Oliveira 2374, 10 Apr 1976, Brazil: Bahia: Mun. of Jaguaquara: 9 km NW of Apurema, at edge of road, disturbed area of forest, elev. 250 m (CEPEC; IT: DD, INPA, K, LE, PE, US-2925824, US-2925825, US-2925826, US-2925827, US-2925828, US-2925829).

Illustrations (Books): E.J.Judziewicz et al, *American Bamboos* (1999) (238, Fig. 140).

Illustrations (Journals): *Systematic Botany* (27, 709, Fig.2; 710, Fig.3 (2002)).

Images: E.J.Judziewicz, E.J., *American Bamboos* (1999);

Derivation (Clifford & Bostock 2007): L. aureus, golden-yellow; fimbriae, fringe; -atum, possessing. Oral setae golden-yellow.

Classification. Subfamily Bambusoideae. Tribe: Bambuseae.

Habit, Vegetative Morphology. Perennial, woody bamboo, culms solitary. Rhizomes elongated, pachymorph. Butt sheaths absent. Culms erect, 1000–1100 cm long, 25–35 mm diam., woody. Culm-internodes terete, thick-walled. Lateral branches dendroid. Bud complement 1. Branch complement many, in a clump, with 1 branch dominant. Culm-sheaths present, persistent, hispid, hairy throughout, with dark brown hairs, auriculate, setose on shoulders. Culm-sheath ligule 4–5 mm high, ciliate. Culm-sheath blade linear, reflexed, 25–30 cm long. Leaves cauline, 9–16 per branch. Leaf-sheaths outer margin hairy. Leaf-sheath oral hairs setose. Leaf-sheath auricles falcate. Ligule an eciliate membrane, 0.5–1 mm long. Collar with external ligule. Leaf-blades deciduous at the ligule, lanceolate, 18–23 cm long, 8–16 mm wide.

Inflorescence. Synflorescence bractiferous, scanty, 15–30 cm long, with glumaceous subtending bracts, without axillary buds at base of spikelet, prophyllate below lateral spikelets.

Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–11 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets linear, laterally compressed, 50–180 mm long, 6 mm wide, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes pilose.

Glumes. Glumes several, 2–4 empty glumes, persistent, similar, firmer than fertile lemma. Upper glume lanceolate, 15–22 mm long, coriaceous, without keels, 10–20 -veined. Upper glume margins ciliate. Upper glume apex obtuse.

Florets. Fertile lemma ovate, 20–25 mm long, chartaceous, without keel, 24–29 -veined, more than 3-veined. Lemma lateral veins with cross-veins. Lemma apex acute. Palea chartaceous, 14–18 -veined. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 3, veined, ciliate. Anthers 6, 10–12 mm long. Stigmas 2. Ovary pubescent on apex. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil. Brazil Northeast.

Eremocaulon capitatum (Trin.) Londono. *Syst Bot.* 27::714 (2002).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online (as *Guadua*), W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. **Basionym or Replaced Name:** *Bambusa capitata* Trin., *Mem. Acad. Imp. Sci. Saint-Petersbourg, Ser. 6, Sci. Math., Seconde Pt. Sci. Nat.* 3(1): 626–627 (1835)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *Riedel s.n.*, Aug. 1826, Brazil: in ripa rivi (Rio Pardo), flowers (LE-TRIN-3211.01 (& fig.); IT: MO-2875457). HT.

IT: *Riedel 430*, Aug 1826, Brazil: in ripa flum. Pardo (G, K, NY, US (fragm.)). IT (possible).

Recent Synonyms: *Guadua capitata* (Trin.) Munro, *Trans. Linn. Soc.* 26: 81 (1868).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. caput, head; -ata, possessing. Inflorescence condensed to a sphere-like structure.

Classification. Subfamily Bambusoideae. Tribe: Bambuseae.

Habit, Vegetative Morphology. Perennial, woody bamboo, caespitose. Rhizomes short, pachymorph. Butt sheaths absent. Culms erect, 500–700 cm long, woody. Culm-internodes terete, distally glabrous. Lateral branches dendroid. Branch complement several, in a clump. Culm-sheaths present. Leaf-sheaths glabrous on

surface. Leaf-sheath oral hairs ciliate. Leaf-sheath auricles erect. Ligule an eciliate membrane, 0.5 mm long, truncate. Collar with external ligule. Leaf-blade base with a brief petiole-like connection to sheath. Leaf-blades lanceolate, 15–25 cm long, 8–14 mm wide, glaucous. Leaf-blade venation with 10–12 secondary veins. Leaf-blade surface glabrous. Leaf-blade apex acuminate.

Inflorescence. Synflorescence bractiferous, globose, 2.5–5 cm long, with glumaceous subtending bracts, with axillary buds at base of spikelet, prophyllate below lateral spikelets.

Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–4 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, subterete, 12–15 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes two, persistent, similar, shorter than spikelet. Lower glume ovate, 6 mm long, 11 -veined. Lower glume apex acute. Upper glume ovate, 8 mm long, 11 -veined. Upper glume apex acute.

Florets. Fertile lemma ovate, 10–12 mm long, coriaceous, without keel, 13 -veined, more than 3-veined. Lemma apex acute. Palea 1 length of lemma. Palea keels winged, narrowly winged. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 3, veined, ciliate. Anthers 6. Stigmas 3. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil. Brazil West Central.

Eremocaulon setosum Londoño & L.G. Clark. *Syst Bot.* 27(4): 719–721, f. 7 (2002).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, U. Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Brazil: São Paulo: Mun. Salessópolis, Estação Biológica Boracéia/ Reserva Hidrológica do Rio Calro-SABESP, trail to Campos da Boracéia, 850 m, 422:36'S, 45:54'W, 25 Feb 1991, L.G. Clark & M. Morel 829 (HT: SP; IT: ISC, MBM, MO, NY, RB, SJRP, US).

Illustrations (Journals): *Systematic Botany* (27, 720, Fig. 7 (2002)).

Derivation (Clifford & Bostock 2007): L. seta, bristle; -osa, abundance.

Classification. Subfamily Bambusoideae. Tribe: Bambuseae.

Habit, Vegetative Morphology. Perennial, woody bamboo. Butt sheaths absent. Culms scandent, 700–800 cm long, 20–35 mm diam., woody. Culm-internodes terete, thick-walled, yellow or glaucous, distally pubescent. Culm-nodes without obvious supra-nodal ridge. Lateral branches dendroid. Branch complement three or several, with 1 branch dominant. Culm-sheaths present, tardily deciduous, 11–28 cm long, 1.3–2 times as long as wide, coriaceous, pubescent, hairy on margins, auriculate, with 5–14 mm high auricles, with 1.5–4 mm wide auricles, setose on shoulders, shoulders with 3–6 mm long hairs. Culm-sheath ligule 1–2.5 mm high. Culm-sheath blade triangular, 7–20 cm long, 15–30 mm wide, pubescent. Leaves cauline, 7–23 per branch. Leaf-sheaths glabrous on surface. Leaf-sheath oral hairs lacking or setose, 6–12 mm long. Leaf-sheath auricles absent or falcate, 5–14 mm long. Ligule an eciliate membrane or a ciliolate membrane, 1.5–3 mm long, glabrous on abaxial surface or pubescent on abaxial surface, entire (asymmetrical). Collar with external ligule. Leaf-blade base with a brief petiole-like connection to sheath, petiole 0.3–0.5 cm long, petiole glabrous. Leaf-blades deciduous at the ligule, lanceolate or ovate, 6–20 cm long, 8–21 mm wide, glaucous and dark green, variegated (green margins). Leaf-blade venation with 7–13 secondary veins. Leaf-blade surface glabrous. Leaf-blade apex filiform. Flowering specimens unknown.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil. Brazil Southeast.

Eremochloa attenuata A.G. Buitenhuis. *Blumea*, 46(2): 404 (2001).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online.

TYPE from Thailand. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Thailand: N (Chiang Mai: Doi Sutep), NE (Udawn: Kao Krading), *Kerr 8686* (HT: BM; IT: P).

Illustrations (Journals): *Blumea* (46: 405, fig. 1 (2001)).

Derivation (Clifford & Bostock 2007): L. drawn out or narrowed. Spikelets or panicles narrow.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Incertae Sedis.

Habit, Vegetative Morphology. Perennial. Cataphylls evident (glabrous). Rhizomes elongated. Basal innovations extravaginal. Culms 16–42 cm long. Culm-internodes thin-walled, distally pilose. Culm-nodes glabrous. Leaf-sheaths pilose. Ligule a ciliolate membrane, 0.4–0.6 mm long. Leaf-blades conduplicate, 7–13 cm long, 2–3 mm wide. Leaf-blade surface pilose. Leaf-blade margins ciliate. Leaf-blade apex abruptly acute.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight, unilateral, 9–16 cm long. Rhachis fragile at the nodes, angular, glabrous on surface, glabrous on margins. Rhachis internodes clavate, 2–3 mm long, 0.5–0.7 length of fertile spikelet. Spikelets appressed, in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, linear, foliaceous, 3–3.4 mm long, 0.75–0.95 length of fertile spikelet.

Sterile Spikelets. Companion sterile spikelets represented by barren pedicels.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate, dorsally compressed, compressed strongly, 3.7–3.9 mm long, 1.9–2 mm wide, falling entire, deciduous with accessory branch structures. Spikelet callus base truncate.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume ovate, 1 length of spikelet, coriaceous, 2-keeled, winged on keel, winged narrowly, winged near apex, 7–9 -veined. Lower glume primary vein pectinately spinose. Lower glume lateral veins transversely connected at apex. Lower glume surface flat, glabrous or puberulous. Lower glume apex truncate. Upper glume ovate, 1 length of spikelet, chartaceous, 1-keeled, 3 -veined. Upper glume lateral veins transversely connected at apex. Upper glume surface glabrous. Upper glume apex acute.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret ovate, hyaline. Fertile lemma ovate, hyaline, without keel. Palea hyaline.

Flower and Fruit. Anthers 3, 1.5–2.2 mm long. Caryopsis ellipsoid.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indo-China. Thailand.

Eremochloa bimaculata Hack. *DC. Monog. Phan.* vi. 265. (1889).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*), N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960).

TYPE from India. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: India:, *Griffith KD6774* (HT: B (destroyed); IT: G, K, L (fragm. ex B)).

Illustrations (Books): N.L.Bor, *The grasses of Burma, Ceylon, India and Pakistan* (1960) (147, Fig. 5), E.E.Henty, *A Manual of the Grasses of New Guinea* (1969) (90, Pl. 34), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (259), J.C.Tothill, & J.B.Hacker. *The grasses of southern Queensland* (1983) (234), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (248, Fig. 38), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 898).

Illustrations (Journals): *Blumea* (46: 405, fig.2 (2001)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. bis, twice; macula, spot; -ata, possessing. Spikelets pale-green except for margins of lower glume which may be pigmented.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Incertae Sedis.

Habit, Vegetative Morphology. Perennial, caespitose. Rootstock evident. Culms erect or geniculately ascending, 30–60 cm long, 2–3 -noded. Culm-nodes glabrous or bearded. Leaf-sheaths keeled. Ligule an eciliate membrane, 0.75–1 mm long. Leaf-blades conduplicate, 5–12 cm long, 2–3.5 mm wide. Leaf-blade margins tuberculate-ciliate, hairy at base. Leaf-blade apex abruptly acute.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, arcuate, unilateral, 5–10 cm long. Rhachis fragile at the nodes, glabrous on surface, glabrous on margins. Rhachis internodes clavate, 2.5–3 mm long. Rhachis internode tip crateriform. Spikelets appressed, in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, narrowly elliptic, foliaceous, 3 mm long.

Sterile Spikelets. Companion sterile spikelets represented by barren pedicels.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets oblong, dorsally compressed, compressed strongly, obtuse, 4–5 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus glabrous or pilose, base truncate, with central boss, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma, shiny. Lower glume oblong, 1 length of spikelet, chartaceous, 2-keeled, winged on keel, winged narrowly, winged above, 7 -veined. Lower glume primary vein pectinately spinose. Lower glume surface flat. Upper glume oblong, chartaceous, 1-keeled, winged on keel, winged below, 3 -veined. Upper glume apex acute.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret elliptic, 3.5 mm long, hyaline, ciliate on margins, acute. Palea of lower sterile floret 1 length of lemma. Fertile lemma elliptic, 3–4 mm long, hyaline, without keel. Lemma apex obtuse. Palea 1 length of lemma, hyaline.

Flower and Fruit. Anthers 3, 2–3 mm long.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia, Australasia.

Country /Province /State. China. China South Central. **Indo-China, Malesia, Papuasia.** Cambodia, Myanmar, Thailand, Vietnam. Malaya. New Guinea PNG. New Guinea. **Australia.** Queensland, New South Wales.

TDWG4. Guizhou, Hubei, Sichuan, Yunnan. North, Central, South East. Coast, Tablelands, Western Slopes.

Eremochloa ciliaris (L.) Merrill. *Philipp.Journ. Sci. i. Suppl. 5*, 331 (1906).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), S-L Chen et al, *Flora of China 22* (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*), N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960).

TYPE from India. **Basionym or Replaced Name:** *Nardus ciliaris* L., *Sp. Pl.* 1: 53 (1753). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: India: Coll?.

Illustrations (Books): C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (678), C-C Hsu, *Taiwan Grasses* (1975), N.L.Bor, *The grasses of Burma, Ceylon, India and Pakistan* (1960) (147, Fig 5), H.B.Gilliland, *Grasses of Malaya* (1971) (276, Fig 59), E.E.Henty, *A Manual of the Grasses of New Guinea* (1969) (90, Pl. 34), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (692), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (fig. 898).

Illustrations (Journals): *Blumea* (46: 407, fig.3 (2001)).

Images: H.B.Gilliland et al., *Flora of Malaya Vol. 3 Grasses* (1971);.

Derivation (Clifford & Bostock 2007): *L. cilium*, eyelid; -are, pertaining to. Glumes or lemmas ciliate on nerves or margins.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Incertae Sedis.

Habit, Vegetative Morphology. Perennial, caespitose. Rootstock evident. Culms erect or geniculately ascending, 10–80 cm long. Culm-nodes glabrous or bearded. Leaf-sheaths keeled. Ligule an eciliate membrane, 0.5–1 mm long. Leaf-blades flat or convolute, 4–11 cm long, 2–3 mm wide. Leaf-blade surface glabrous or pubescent, hairy on both sides. Leaf-blade margins glabrous. Leaf-blade apex abruptly acute.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, arcuate, unilateral, 2–6 cm long. Rhachis fragile at the nodes, flattened, glabrous on surface or pilose on surface, ciliate on margins. Rhachis internodes clavate, 2.5–3 mm long. Rhachis internode tip crateriform. Spikelets appressed, in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, narrowly elliptic, foliaceous, 2.5–3 mm long.

Sterile Spikelets. Companion sterile spikelets represented by barren pedicels.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, compressed strongly, acute, 3.5–4.5 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus glabrous or pilose, base truncate, with central boss, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, chartaceous, 2-keeled, wingless, 7 -veined. Lower glume primary vein pectinately ciliate or pectinately spinose. Lower glume surface flat, glabrous or pilose. Lower glume apex acute. Upper glume lanceolate, chartaceous, 1-keeled, winged on keel, winged below, 3 -veined. Upper glume apex acuminate.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret oblong, 3.5 mm long, hyaline, ciliate on margins, obtuse. Palea of lower sterile floret 1 length of lemma. Fertile lemma oblong, 2.5 mm long, hyaline, without keel, 0 -veined, 0–3 -veined, without veins. Lemma apex obtuse. Palea 0.1–0.8 length of lemma, hyaline.

Flower and Fruit. Anthers 3, 1.5–2.25 mm long.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia, Australasia, North America.

Country /Province /State. China, Eastern Asia. China South Central, Hainan, China Southeast. Taiwan. **Indo-China, Malesia, Papuasia.** Cambodia, Laos, Myanmar, Thailand, Vietnam. Lesser Sunda Is, Malaya, Singapore, Philippines, Sumatra. New Guinea PNG, or West Papua (Irian Jaya). New Guinea. **Australia.** Queensland. **Southwestern USA.** California (19th C).

TDWG4. Guangdong, Guangxi. Guizhou, Yunnan. North.

Eremochloa ciliatifolia Hack. *DC. Monog. Phan.* vi. 265 (1889).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from India. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *Griffith KD 6776*, India (B; IT: K, L, MO, US-727962).

Illustrations (Books): N.L.Bor, *The grasses of Burma, Ceylon, India and Pakistan* (1960) (147, Fig 5).

Illustrations (Journals): *Blumea* (46: 408, fig.4 (2001)).

Derivation (Clifford & Bostock 2007): L. cilium, eyelid; -ata, possessing; folium, leaf. Leaf-blades hairy.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Incertae Sedis.

Habit, Vegetative Morphology. Perennial. Rootstock evident. Culms erect or geniculately ascending, 20–40 cm long. Culm-internodes distally pilose. Culm-nodes bearded. Leaves mostly basal. Leaf-sheaths keeled, outer margin hairy. Ligule an eciliate membrane, 1.5 mm long. Leaf-blades 5–15 cm long, 4–8 mm wide. Leaf-blade margins tuberculate-ciliate, hairy all along. Leaf-blade apex abruptly acute, hooded.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, arcuate, unilateral, 2–4 cm long. Rhachis fragile at the nodes, pilose on surface, glabrous on margins. Rhachis internodes clavate, 2.5–3 mm long. Rhachis internode tip crateriform. Spikelets appressed, in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, linear, flattened, 2.5–3 mm long, ciliate.

Sterile Spikelets. Companion sterile spikelets represented by awns, comprising 1 awn (tilted on pedicel), 3.5–4 mm long.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate, dorsally compressed, compressed strongly, 4.5 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus bearded, base truncate, with central boss, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume ovate, 1 length of spikelet, coriaceous, 2-keeled, wingless, 7 -veined. Lower glume primary vein pectinately ciliate or pectinately spinose. Lower glume surface flat. Upper glume elliptic, chartaceous, 1-keeled, winged on keel, winged below, 3 -veined. Upper glume apex acute.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret elliptic, hyaline, acute. Palea of lower sterile floret 1 length of lemma. Fertile lemma elliptic, hyaline, without keel. Lemma apex obtuse. Palea 1 length of lemma, hyaline.

Flower and Fruit. Anthers 3, 2.5 mm long.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indo-China. Laos, Myanmar, Thailand, Vietnam.

Eremochloa eriopoda C. E. Hubbard. *Hook. Ic. Pl.* iv. 1. 3376 (1939).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)*.

TYPE from Thailand. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *Kerr 8354*, 26 Jan 1924, Thailand: Ubon: Muang Samsip in saline sand, c. 100 m (K).

Illustrations (Journals): *Hooker's Icones Plantarum* (t.3376 (1939)), *Blumea* (46: 409, fig.5 (2001)).

Derivation (Clifford & Bostock 2007): Gk. erion, wool; pous, foot. Basal leaf-sheaths woolly.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Incertae Sedis.

Habit, Vegetative Morphology. Perennial. Butt sheaths woolly. Basal innovations intravaginal, flabellate. Culms erect, 40–70 cm long, 3–4 -noded. Leaf-sheaths keeled. Ligule an eciliate membrane, 0.2–0.7 mm long. Leaf-blades conduplicate, 10–22 cm long, 2.5–4 mm wide, stiff. Leaf-blade surface glabrous. Leaf-blade apex obtuse.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, arcuate, unilateral, 1.5–2.5 cm long. Rhachis fragile at the nodes, subterete, glabrous on margins. Spikelet packing crowded. Rhachis internodes linear, 1.5–2 mm long. Spikelets ascending, in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, linear, foliaceous, 4.5–6.5 mm long, glabrous.

Sterile Spikelets. Companion sterile spikelets represented by barren pedicels.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate, dorsally compressed, compressed strongly, 4–6 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus pubescent, base truncate, with central boss, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume ovate, 1 length of spikelet, coriaceous, 2-keeled, wingless, 7 -veined. Lower glume primary vein pectinately spinose. Lower glume surface convex. Lower glume apex obtuse or acute. Upper glume elliptic, coriaceous, 1-keeled, winged on keel, winged below, 3 -veined. Upper glume surface puberulous, hairy below. Upper glume apex acute.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret elliptic, 4–4.5 mm long, hyaline, 2 -veined, ciliolate on margins, obtuse. Palea of lower sterile floret 1 length of lemma. Fertile lemma elliptic, 3–4 mm long, hyaline, without keel, 2 -veined, 0–3 -veined. Lemma apex obtuse. Palea 1 length of lemma, hyaline, 0 -veined, without keels.

Flower and Fruit. Anthers 3, 2 mm long.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indo-China, Malesia. Thailand, Vietnam. Sulawesi.

Eremochloa lanceolata A.G.Buitenhuis. *Blumea* 46(2): 409 (2001).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Thailand. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Thailand: E, Ubon Ratchathani ('Ubol'), Phataem Historic Park, on dry sandy soils, in open areas, edge of dipterocarp forest, ca. 150 m altitude, *Nanakorn 1253* (HT: NY; IT: BKF).

Illustrations (Journals): *Blumea* (46: 410, fig.6 (2001)).

Derivation (Clifford & Bostock 2007): *L. lanceus*, lance; *-ola*, diminutive; *-ata*, possessing. Mostly a reference to lanceolate leaf-blades.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Incertae Sedis.

Habit, Vegetative Morphology. Perennial. Cataphylls evident (glabrous). Basal innovations extravaginal. Culms 30–45 cm long. Culm-internodes thin-walled, distally glabrous. Culm-nodes glabrous. Leaf-sheaths hirsute. Ligule an eciliate membrane, 0.5 mm long. Leaf-blades conduplicate, 3–6 cm long, 1 mm wide. Leaf-blade surface pilose. Leaf-blade margins ciliate. Leaf-blade apex abruptly acute.

Inflorescence. Inflorescence composed of racemes. Racemes 1–2, single or paired, straight, unilateral, 5–15 cm long. Rhachis fragile at the nodes, angular, glabrous on surface, glabrous on margins. Rhachis internodes clavate, 1.2–1.3 mm long, 0.4 length of fertile spikelet. Spikelets appressed, in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, linear, foliaceous, 5 mm long, 1.5 length of fertile spikelet.

Sterile Spikelets. Companion sterile spikelets represented by barren pedicels.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate, dorsally compressed, compressed strongly, 3.4–3.6 mm long, 1.5 mm wide, falling entire, deciduous with accessory branch structures. Spikelet callus pubescent, base truncate. Spikelet callus hairs 0.3 mm long.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume ovate, 1 length of spikelet, coriaceous, 2-keeled, wingless, 5–6 -veined. Lower glume primary vein pectinately spinose. Lower glume lateral veins transversely connected at apex. Lower glume surface flat, glabrous or puberulous. Lower glume apex acute. Upper glume ovate, 1 length of spikelet, chartaceous, 1-keeled, 3 -veined. Upper glume lateral veins transversely connected at apex. Upper glume surface glabrous. Upper glume apex acute.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret ovate, hyaline. Fertile lemma ovate, hyaline, without keel. Palea hyaline.

Flower and Fruit. Anthers 3 (but 2 in male floret), 1.6–1.7 mm long. Caryopsis ellipsoid.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indo-China. Thailand.

Eremochloa maxwellii Veldkamp. *Blumea* 48:496 (2003).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Thailand. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Thailand: E Thailnad, Ubon Ratchathani, km 36 on road 217 E of Warin Chamrap, *Laegaard et al. 21811* (HT: AAU).

Derivation (Clifford & Bostock 2007): in honor of George Maxwell (1804–1880) who collected and dealt in Australian natural history specimens.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Incertae Sedis.

Habit, Vegetative Morphology. Perennial. Rhizomes elongated. Basal innovations extravaginal. Culms 8 cm long. Culm-internodes thin-walled, distally glabrous. Culm-nodes glabrous. Leaf-sheaths glabrous on

surface. Ligule an eciliate membrane, 1 mm long. Leaf-blades flat or conduplicate, 6–15 cm long, 3 mm wide. Leaf-blade surface glabrous. Leaf-blade margins glabrous. Leaf-blade apex acute.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight, unilateral, 5–10 cm long. Rhachis fragile at the nodes, with scattered hairs, glabrous on margins. Rhachis internodes clavate, 3–3.5 mm long, 0.6–0.66 length of fertile spikelet. Rhachis internode tip crateriform. Spikelets appressed, in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, narrowly elliptic, foliaceous, 3.5–4.3 mm long, 0.7–0.9 length of fertile spikelet.

Sterile Spikelets. Companion sterile spikelets rudimentary, linear, 1–1.2 mm long.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, compressed strongly, 5–5.5 mm long, 1.7–2 mm wide, falling entire, deciduous with accessory branch structures. Spikelet callus base truncate, with central boss, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume oblong, 1 length of spikelet, chartaceous, 2-keeled, winged on keel, winged narrowly, winged near apex, 6–7 -veined. Lower glume lateral veins transversely connected at apex. Lower glume surface flat, glabrous. Lower glume apex truncate, awned, 2 -awned, awn 2–3 mm long. Upper glume oblong, 4.8–5 mm long, chartaceous, 1-keeled, keeled below. Upper glume surface glabrous.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret elliptic, hyaline. Fertile lemma elliptic, hyaline, without keel.

Flower and Fruit. Anthers 3, 1.9 mm long.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indo-China. Thailand.

Eremochloa muricata (Retz.) Hack. *DC. Monog. Phan.* vi. 262 (1889).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from India. **Basionym or Replaced Name:** *Aegilops muricata* Retz., *Observ. Bot.* 2: 27 (1781). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: India:, *Kvniq s.n.* (HT: LD; IT: C, K).

Illustrations (Books): N.L.Bor, *The grasses of Burma, Ceylon, India and Pakistan* (1960) (147, Fig 5), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Blumea* (46: 411, fig.7 (2001)).

Derivation (Clifford & Bostock 2007): L. rough. Glumes bear short hard points.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Incertae Sedis.

Habit, Vegetative Morphology. Perennial, mat forming or caespitose. Rootstock evident. Culms decumbent, 16–60 cm long. Culm-nodes glabrous. Ligule an eciliate membrane. Leaf-blades 1–10(–15) cm long, 2–6 mm wide. Leaf-blade margins glabrous. Leaf-blade apex obtuse.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, arcuate, unilateral, 4–15 cm long. Rhachis fragile at the nodes, subterete, glabrous on margins. Rhachis internodes cuneate. Rhachis internode tip crateriform. Spikelets appressed, in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, cuneate, foliaceous, 4–5 mm long.

Sterile Spikelets. Companion sterile spikelets represented by barren pedicels.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, compressed strongly, truncate, 3–6 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus base truncate, with central boss, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, coriaceous, 2-keeled, winged on keel, winged broadly (fan-shaped), winged near apex, 7 -veined. Lower glume primary vein pectinately spinose. Lower glume surface flat. Lower glume apex emarginate. Upper glume elliptic, chartaceous, 1-keeled, 3 -veined.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret elliptic, 0.8 length of spikelet, hyaline. Fertile lemma elliptic, 3–4 mm long, hyaline, without keel, 5 -veined, more than 3-veined. Lemma apex obtuse. Palea hyaline.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia, Australasia.

Country /Province /State. China. China Southeast. **Indian Subcontinent, Indo-China.** India, Sri Lanka. Myanmar, Thailand, Vietnam. **Australia.** Queensland.

TDWG4. Guangdong. Gujarat. Maharashtra. North.

Eremochloa ophiuroides (Munro) Hack. *DC. Monog. Phan.* vi. 261 (1889).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), T.Koyama, *Grasses of Japan and its neighboring regions* (1987), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from China. **Basionym or Replaced Name:** *Ischaemum ophiuroides* Munro, *Proc. Amer. Acad. Arts* 4: 363 (1860)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT?: *Charles Wright 1048*, The number 1048 may be a collection number..

HT: *C. Wright s.n.*, 1853 – 1856, China: Lemma Kiangsu: Whampoia (K; IT: A-23680, NY, P, US-727969).

Illustrations (Books): C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (680), C-C Hsu, *Taiwan Grasses* (1975) (646, Pl. 1463), M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (692), W.Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (227, Fig 78), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 898).

Illustrations (Journals): *Blumea* (46: 412, fig.8 (2001)).

Derivation (Clifford & Bostock 2007): Gk. -oides, resembling. Resembling *Ophiuros*..

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Incertae Sedis.

Habit, Vegetative Morphology. Perennial, mat forming. Rhizomes elongated. Culms erect or geniculately ascending, 15–30 cm long, 0.8–1.2 mm diam., 2–3 -noded. Leaves mostly basal. Leaf-sheaths keeled. Ligule a fringe of hairs. Leaf-blades 3–10 cm long, 2–4 mm wide. Leaf-blade margins glabrous. Leaf-blade apex obtuse.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, straight or arcuate, unilateral, 3–6 cm long. Rhachis fragile at the nodes, flattened, glabrous on margins. Rhachis internodes columnar or clavate, 2 mm long. Rhachis internode tip crateriform. Spikelets appressed, in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, linear, foliaceous, 3–4 mm long.

Sterile Spikelets. Companion sterile spikelets represented by barren pedicels.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets oblong, dorsally compressed, compressed strongly, 4–4.5 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus pubescent, base truncate, with central boss, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume oblong, 1 length of spikelet, coriaceous, 2-keeled, winged on keel, winged broadly, winged near apex, 7 -veined. Lower glume primary vein pectinately spinose. Lower glume surface convex. Lower glume apex truncate. Upper glume ovate, coriaceous, 1-keeled, winged on keel, winged below, 3 -veined. Upper glume apex acute.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret oblong, hyaline, ciliate on margins, obtuse. Palea of lower sterile floret 1 length of lemma. Fertile lemma oblong, hyaline, without keel. Lemma apex obtuse. Palea 1 length of lemma, hyaline.

Flower and Fruit. Anthers 3, 1.8–2 mm long.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia, Pacific, North America, South America.

Country /Province /State. China, Eastern Asia. China South Central, China Southeast. Taiwan. **Indo-China.** Vietnam. **North-central Pacific.** Marianas (*). Hawaii (*). **South-central USA, Southeastern USA, Mexico.** Texas. Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee. Northwest Mexico. **Mesoamerica, Caribbean.** Costa Rica, Honduras. Puerto Rico.

TDWG4. Anhui, Fujian, Guangdong, Guangxi, Hunan, Jiangsu, Zhejiang, Guizhou, Hubei. Baja California.

Eremochloa pectinata A.G.Buitenhuis. *Blumea*, 46(2): 413 (2001).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from India. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: S India: Muritsur; Sri Lanka: Uva Province, Monaragala District, *Rottler s.n. via Klein 792 in Herb. Willdenow 2282* (HT: B, microfiche IDC 7440; photocopy in L; E-00051790; Herb. Banks?, BM, cf. Index Herb. II, 4(1976) 553).

Illustrations (Journals): *Blumea* (46: 413, fig.9 (2001)).

Derivation (Clifford & Bostock 2007): L. *pecten*, comb; -ata, possessing. Inflorescence with spikes or racemes bearing a fanciful resemblance to a comb.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Incertae Sedis.

Habit, Vegetative Morphology. Perennial. Cataphylls evident (ciliate). Rhizomes elongated. Basal innovations extravaginal. Culms 35–65 cm long. Culm-internodes thin-walled or solid, distally glabrous. Culm-

nodes glabrous or pubescent. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 0.5–0.9 mm long. Leaf-blades flat or conduplicate, 2–20 cm long, 2–5 mm wide. Leaf-blade surface glabrous or pilose. Leaf-blade margins glabrous or ciliate, hairy at base. Leaf-blade apex abruptly acute.

Inflorescence. Inflorescence composed of racemes. Racemes 1–2, single or paired, straight, unilateral, 7–35 cm long. Rhachis fragile at the nodes, angular, glabrous on surface, glabrous on margins. Rhachis internodes clavate, 2.9–4.7 mm long, 0.6–0.9 length of fertile spikelet. Spikelets appressed, in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, narrowly elliptic, foliaceous, 2.8–5 mm long, 0.95–1.25 length of fertile spikelet.

Sterile Spikelets. Companion sterile spikelets represented by awns, comprising 1 awn, 1.3–3 mm long.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate or obovate, dorsally compressed, compressed strongly, 4.5–5.5 mm long, 1.6–2.2 mm wide, falling entire, deciduous with accessory branch structures. Spikelet callus base truncate.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume ovate, 1 length of spikelet, coriaceous, 2-keeled, wingless, 5–7 -veined. Lower glume primary vein pectinately spinose. Lower glume lateral veins transversely connected at apex. Lower glume surface flat, glabrous or puberulous. Lower glume apex acute. Upper glume ovate, 1 length of spikelet, chartaceous, 1-keeled, 3 -veined. Upper glume lateral veins transversely connected at apex. Upper glume surface glabrous. Upper glume apex acute.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret ovate, hyaline. Fertile lemma ovate, hyaline, without keel. Palea hyaline.

Flower and Fruit. Anthers 3, 1.4–2.5 mm long. Caryopsis ellipsoid.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent. India, Sri Lanka.

Eremochloa petelotii Merrill. *Univ. Calif. Publ. Bot.* x. 423 (1924).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Cambodia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: A. Pitelot 247, Jul 1921, Cambodia: Campong Chnang (UC (photo, A, K, US); IT: A (fragm. ex UC), P).

Illustrations (Journals): *Blumea* (46: 414, fig.10 (2001)).

Derivation (Clifford & Bostock 2007): in honor of Paul Alfred Pitelot (1885-) French entomologist and plant collector in Indo-China.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Incertae Sedis.

Habit, Vegetative Morphology. Perennial. Culms erect, 60–80 cm long. Culm-nodes glabrous. Leaf-sheaths keeled. Leaf-sheath oral hairs bearded. Ligule an eciliate membrane, 0.5 mm long. Leaf-blades 15–20 cm long, 6–8 mm wide. Leaf-blade margins scaberulous.

Inflorescence. Inflorescence composed of racemes, terminal and axillary. Racemes 1, single, unilateral, 3–10 cm long. Rhachis fragile at the nodes, subterete, glabrous on margins. Rhachis internodes linear, 2–2.5 mm long. Spikelets appressed, in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, filiform, flattened, 7–9 mm long, glabrous.

Sterile Spikelets. Companion sterile spikelets represented by barren pedicels.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, compressed strongly, obtuse, 4.5–5 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus base truncate, with central boss, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, coriaceous, 2-keeled, winged on keel, winged narrowly, winged above, 9 -veined. Lower glume primary vein pectinately spinose. Lower glume surface flat. Lower glume apex obtuse or acute. Upper glume lanceolate, coriaceous, 1-keeled, winged on keel, winged below, 5 -veined. Upper glume apex acuminate.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret elliptic, 3 mm long, hyaline, 0 -veined, without midvein, without lateral veins. Fertile lemma elliptic, 3 mm long, hyaline, without keel, 0 -veined, 0–3 -veined, without veins. Lemma apex obtuse. Palea 1 length of lemma, hyaline, without keels.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indo-China. Cambodia, Thailand.

Eremochloa zeylanica (Trimen) Hack. *DC. Monog. Phan.* vi. 263 (1889).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from Sri Lanka. **Basionym or Replaced Name:** *Ischaemum zeylanicum* Hack. ex Trimen, *Syst. Cat. Fl. Pl. Ceylon* 107 (1885)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Sri Lanka: Kornegala, hill slopes, 800–1500 m, Sept. 1862, *C.P. Thwaites* 3322 (LT: W; IT: G?, K, L, PDA, US-727970 (ex W), US-1298871 (ex PDA), W).

Illustrations (Books): N.L.Bor, *The grasses of Burma, Ceylon, India and Pakistan* (1960) (147, Fig 5), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (fig. 898).

Illustrations (Journals): *Blumea* (46: 415, fig.11 (2001)).

Derivation (Clifford & Bostock 2007): L. -ica, belonging to. Of Ceylon, now Sri Lanka.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe Incertae Sedis.

Habit, Vegetative Morphology. Perennial. Rootstock evident. Culms erect or geniculately ascending, 30–60 cm long, 3–4 -noded. Culm-nodes glabrous. Leaf-sheaths keeled. Ligule an eciliate membrane, 1 mm long. Leaf-blades linear or lanceolate, 2–15 cm long, 2–5 mm wide. Leaf-blade margins scabrous, tuberculate-ciliate, hairy at base. Leaf-blade apex abruptly acute.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, arcuate, unilateral, 4–7 cm long. Rhachis fragile at the nodes, angular, glabrous on surface, glabrous on margins. Rhachis internodes clavate, 3 mm long. Rhachis internode tip crateriform. Spikelets appressed, in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, narrowly elliptic, foliaceous, 4–5 mm long.

Sterile Spikelets. Companion sterile spikelets represented by barren pedicels or rudimentary, 0–1 mm long.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, compressed strongly, 5 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus bearded, base truncate, with central boss, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma, shiny. Lower glume elliptic, 1 length of spikelet, coriaceous, 2-keeled, winged on keel, winged narrowly, winged above, 7 -veined. Lower glume primary vein pectinately spinose. Lower glume surface flat. Upper glume elliptic, chartaceous, 1-keeled, winged on keel, winged below, 3 -veined. Upper glume apex acute.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret elliptic, 3.5 mm long, hyaline, ciliate on margins, obtuse. Palea of lower sterile floret 1 length of lemma. Fertile lemma elliptic, 3.5 mm long, hyaline, without keel. Lemma apex acute. Palea 1 length of lemma, hyaline.

Flower and Fruit. Anthers 3, 1.5 mm long.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. **China.** China South Central, China Southeast. **Indian Subcontinent.** Sri Lanka. **TDWG4.** Guangxi. Yunnan.

Eremopoa altaica (Trin.) Roshev. *Komarov, Fl. URSS*, ii. 431 (1934).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from China. **Basionym or Replaced Name:** *Aira altaica* Trin., *Mem. Acad. Imp. Sci. St.-Petersbourg Divers Savans* 2: 526 (1835)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Xinjiang?: sterilissimus salsuginosis deserti editi Tschujae, July 1832, *A. Bunge* (HT: LE; IT: LE).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (619).

Derivation (Clifford & Bostock 2007): L. -ica, belonging to. From the Altai Mts., Mongolia.

Classification. Subfamily Pooideae. Tribe: Poeae.

Habit, Vegetative Morphology. Annual. Culms 15–27 cm long. Leaf-sheaths longer than adjacent culm internode. Ligule an eciliate membrane, 1–1.5 mm long. Leaf-blades 5–7 cm long, 0.5–1.2 mm wide. Leaf-blade surface scabrous, rough adaxially. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 7–18 cm long, 1–6 cm wide. Primary panicle branches 7–15 -nate, whorled at most nodes, 0.9–2.5 cm long, sterile at lowest node. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 1–3 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets, or of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, laterally compressed, 2–3.5 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes definite, scaberulous.

Glumes. Glumes persistent, similar, shorter than spikelet. Lower glume elliptic, 1.6–2 mm long, 0.8 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume elliptic, 2–2.5(–2.7) mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined. Upper glume apex acute.

Florets. Fertile lemma lanceolate, oblong in profile (narrowly), 2–2.5 mm long, membranous, much thinner above, purple, keeled, 5 -veined, more than 3-veined. Lemma surface pubescent, hairy below, hairy on veins. Lemma apex obtuse. Palea keels ciliolate, adorned below. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3. Caryopsis with adherent pericarp, 1.8 mm long.

Distribution (TDWG). Continent. Europe, Africa, Temperate Asia, Tropical Asia, North America.

Region. Eastern Europe.

Country /Province /State. Central European Russia. **Northern Africa.** Egypt. Siberia, **Middle Asia, Caucasus, Western Asia, China.** Altay. Kazakhstan, Kirgizistan, Turkmenistan, Tadjikistan, Uzbekistan. North Caucasus. Afghanistan, Iran, Turkey. Tibet, Xinjiang. **Indian Subcontinent.** Pakistan, West Himalaya. **Western Canada.** Manitoba.

TDWG4. Himachal Pradesh.

Eremopoa attalica H. Scholz. *Willdenowia*, 10(1): 33 (1980).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Turkey. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Turkey, Antalya: Kehl (B holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. *-ica*, belonging to. From Atalaya, known to the Romans as Attaleia, Turkey.

Classification. Subfamily Pooideae. Tribe: Poeae.

Habit, Vegetative Morphology. Annual. Culms 15–27 cm long. Leaf-sheaths longer than adjacent culm internode, smooth, glabrous on surface. Ligule an eciliate membrane, 1–1.5 mm long. Leaf-blades 3–7 cm long, 0.5–1.2 mm wide. Leaf-blade surface scabrous.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 7–18 cm long, 1–6 cm wide. Primary panicle branches 7–15 -nate, whorled at most nodes, 0.9–2.5 cm long, sterile at lowest node. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 1–3 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets, or of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, laterally compressed, 2–3.5 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes persistent, shorter than spikelet. Lower glume ovate, 1.6–2 mm long, 0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 2–2.5 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla. Fertile lemma lanceolate, oblong in profile (narrowly), 2–2.5 mm long, membranous, much thinner above, purple, keeled, 5 -veined, more than 3-veined. Lemma surface pubescent, hairy below, hairy on veins. Lemma apex obtuse. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Western Asia. Afghanistan, Turkey.

Eremopoa capillaris R.R. Mill. *Fl. Turkey & E. Aegean Is.*, 9: 624, 490 (1985).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Turkey. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Turkey, Gurumze: Davis, Dodds & Cetik D.19681 (E holo, BM, K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. capillis*, a hair; -are, pertaining to. Inflorescence with filiform branches.

Classification. Subfamily Pooideae. Tribe: Poeae.

Habit, Vegetative Morphology. Annual. Culms 18–55 cm long. Leaf-sheaths longer than adjacent culm internode. Ligule an eciliate membrane. Leaf-blades 1.5–18 cm long, 0.9–1.5 mm wide. Leaf-blade surface scabrous.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 10–20 cm long, 5–11 cm wide. Primary panicle branches ascending, 13–27 -nate, whorled at most nodes. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 1–5(–9) fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets, or of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, laterally compressed, 3.5–5.5 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes persistent, shorter than spikelet. Lower glume ovate, 0.8–2 mm long, 0.66–0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.2–2.7 mm long, 0.66–1 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined. Upper glume apex acute.

Florets. Fertile florets appressed to rhachilla. Fertile lemma lanceolate, oblong in profile (narrowly), 1.8–2.7 mm long, membranous, much thinner above, keeled, 5 -veined, more than 3-veined. Lemma midvein ciliolate, hairy below. Lemma surface glabrous. Lemma hairs 0.2–0.3 mm long. Lemma apex truncate. Palea 1.8–2.2 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, oblong, 0.8–1 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Western Asia. Turkey.

Eremopoa mardinensis R.R. Mill. *Fl. Turkey & E. Aegean Is.*, 9: 624, 488 (1985).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online.

TYPE from Turkey. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Turkey, Mardin to Nusaybin; Davis & Hedge D.28491 (E holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. -ensis*, denoting origin. From Mardin, south-eastern Anatolia, Turkey.

Classification. Subfamily Pooideae. Tribe: Poeae.

Habit, Vegetative Morphology. Annual. Culms 14–30 cm long. Leaf-sheaths longer than adjacent culm internode. Ligule an eciliate membrane. Leaf-blades 4–6 cm long, 1.8–2.5 mm wide. Leaf-blade surface scabrous.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 8–12 cm long, 4–9 cm wide. Primary panicle branches 6–10 -nate, whorled at most nodes, branching divaricately, 3.5–8 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 8–12 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, laterally compressed, 7.5–11.5 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes eventually visible between lemmas.

Glumes. Glumes persistent, shorter than spikelet. Lower glume ovate, 1.5–1.9 mm long, 0.6–0.7 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 2.2–2.8 mm long, 0.75 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined. Upper glume apex acute.

Florets. Fertile florets divergent, free at tip. Fertile lemma lanceolate, oblong in profile (narrowly), 2.7–4 mm long, membranous, much thinner above, keeled, 5 -veined, more than 3-veined. Lemma surface glabrous. Lemma apex truncate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, linear or oblong, 1.5–2.1 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. Western Asia. Turkey.

TDWG4.

Eremopoa persica (Trin.) Roshev. *Komarov, Fl. URSS*, ii. 430 (1934).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Iran. **Basionym or Replaced Name:** *Poa persica* Trin., *Mem. Acad. Imp. Sci. St.-Petersbourg, Ser. 6, Sci. Math.* 1(4): 373 (1830)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Szovits 258*, 18 May 1828, Persia: Prov. Aderbeidschan: distr. Khoi: ad Seidchadzi (LE (5 sheets)).

LT: *Szovits 246*, 27 May 1829, [Caucasus; Azerbaijan]: in collibus ad Akar-Tschai prob. Karabagh (LE; ILT; LE, LE, LE, LE, LE). LT designated by Tzvelev, *Zlaki SSSR* 479 (1976).

Illustrations (Books): L.Boulos, *Flora of Egypt* 4 (2005) (150, Fig 42), N.L.Bor, *Gramineae in Flora of Iraq* (1968) (81, Pl. 28).

Derivation (Clifford & Bostock 2007): L. -ica, belonging to. From Persia, now Iran.

Classification. Subfamily Pooideae. Tribe: Poaeae.

Habit, Vegetative Morphology. Annual, caespitose. Culms 5–65 cm long. Leaf-sheaths longer than adjacent culm internode, ribbed. Ligule an eciliate membrane. Leaf-blades 2.5–8 cm long, (0.6–)1.3–2.6 mm wide, flaccid. Leaf-blade surface scabrous, rough adaxially.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 6–17 cm long, (1.5–)3–5 cm wide. Primary panicle branches 5–9 -nate, whorled at most nodes. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, tip rectangular.

Fertile Spikelets. Spikelets comprising (2–)3–5(–8) fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets elliptic, laterally compressed, 4–8.5 mm long, breaking up at maturity, disarticulating below each fertile floret. Rhachilla internodes definite, eventually visible between lemmas, scaberulous.

Glumes. Glumes persistent, dissimilar, shorter than spikelet. Lower glume ovate, 1.1–2 mm long, 0.6–0.7 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume ovate, 1.6–3 mm long, 0.6–0.8 length of adjacent fertile lemma, membranous, 1-keeled, 3 -veined. Upper glume apex acute.

Florets. Fertile lemma lanceolate, oblong in profile (narrowly), (1.9–)2.5–3.5 mm long, membranous, much thinner above, keeled, 5 -veined, more than 3-veined. Lemma surface pubescent, hairy below. Lemma hairs 0.3–0.5 mm long. Lemma apex truncate or acute. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Anthers 3, linear, 1.4–2.6 mm long. Caryopsis with adherent pericarp, lanceolate, trigonous. Embryo 1.1–1.2 length of caryopsis.

$2n = 14$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe (*), Africa, Temperate Asia, Tropical Asia.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Northern Africa.** Egypt. **Siberia, Middle Asia, Caucasus, Western Asia, Arabian Peninsula, China.** Afghanistan, Iran, Iraq. Xinjiang. **Indian Subcontinent.** Pakistan.

TDWG4. Jammu Kashmir.

Eremopyrum bonaepartis (Spreng.) Nevski. *Acta Inst. Bot. Acad. Sc. URSS, Ser. I. Fasc.* 1, 18 (1933).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), N.Tsvelev, *Grasses of the Soviet Union* (1983).

Basionym or Replaced Name: *Triticum bonaepartis* Spreng., *Erster Nachtr. Bot. Gart. Halle* 1: 40 (1801)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: (B-W-2335.1). LT designated by Frederiksen, *Nordic J. Bot.* 11: 279 (1991).

Illustrations (Books): N.Feinbrun-Dothan, *Flora Palaestina* 4 (1986) (Pl 205 as var. *bonaepartis*), L.Boulos, *Flora of Egypt* 4 (2005) (209, Pl. 60), N.L.Bor, *Gramineae* in K.H.Rechinger, *Flora Iranica*. No. 70/30 (1970) (Tab. 26), N.L.Bor, *Gramineae in Flora of Iraq* (1968) (231& 233, Pl. 78 & 79 as *E. confusum*), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007) (255).

Derivation (Clifford & Bostock 2007): in honor of Napoleon Bonaparte (1769–1821) Corsican-born French statesman and soldier.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Annual. Culms erect or decumbent, 10–30 cm long. Leaf-sheath oral hairs lacking. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades flat or conduplicate or convolute,

5–10 cm long, 3–4 mm wide. Leaf-blade surface scabrous, rough adaxially. Leaf-blade margins scabrous. Leaf-blade apex acute.

Inflorescence. Inflorescence composed of racemes, exserted. Peduncle pubescent above. Racemes 1, single, oblong, bilateral, 1.5–4 cm long. Rhachis fragile at the nodes. Spikelet packing broadside to rhachis, crowded. Rhachis internodes oblong, falling with spikelet above. Spikelets pectinate, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 15–20 mm long, falling entire, deciduous with accessory branch structures, readily shedding fertile florets.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, 7–12 mm long, 1 length of upper glume, coriaceous, 1-keeled, keeled all along, 1 -veined. Lower glume primary vein scabrous. Lower glume lateral veins absent. Lower glume surface glabrous or pilose. Lower glume apex acute. Upper glume lanceolate, 7–12 mm long, 0.75 length of adjacent fertile lemma, coriaceous, 1-keeled, keeled all along, 1 -veined. Upper glume primary vein conspicuous, scabrous. Upper glume lateral veins absent. Upper glume surface glabrous or pilose. Upper glume apex acute.

Florets. Fertile lemma lanceolate, 12–15 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma surface smooth or scabrous, rough above, glabrous or pilose. Lemma apex acuminate, muticous or awned, 1 -awned. Principal lemma awn 0–3 mm long overall. Palea keels ciliate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, ciliate. Ovary with a fleshy appendage below style insertion, pubescent on apex. Caryopsis with adherent pericarp, oblong, sulcate on hilar side, hairy at apex, apex fleshy. Embryo 0.2 length of caryopsis. Hilum linear, 1 length of caryopsis.

$2n = 14$ (1 ref TROPICOS), or 28 (2 refs TROPICOS).

Distribution (TDWG). Continent. Europe (*), Africa, Temperate Asia, Tropical Asia, North America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Northern Africa.** Egypt, Morocco. **Middle Asia, Caucasus, Western Asia, Arabian Peninsula, China, Russia.** Kazakhstan, Kirgizistan, Turkmenistan, Tadjikistan, Uzbekistan. Afghanistan, Iran, Iraq, Sinai. Xinjiang. **Indian Subcontinent.** Pakistan. **Southwestern USA.** Arizona.

TDWG4. Jammu Kashmir.

Eremopyrum distans (C. Koch) Nevski. *Acta Inst. Bot. Acad. Sc. URSS, Ser. I. Fasc. 1*, 18 (1934).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Agropyron distans* K. Koch, *Linnaea* 21(4): 426 (1848). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Russia: Armenia: ultra Araxen fluv. apud Amaranth, 1838, *C. Koch 636* (LT: LE).

Illustrations (Books): N.Feinbrun-Dothan, *Flora Palaestina* 4 (1986) (Pl 206), N.L.Bor, *Gramineae in Flora of Iraq* (1968) (235, Pl. 80).

Derivation (Clifford & Bostock 2007): L. disto, be apart. Spikelets widely separated in inflorescence.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or decumbent, 10–25 cm long. Leaf-sheath oral hairs lacking. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades 6–8 cm long, 2–3 mm wide. Leaf-blade surface scabrous, rough adaxially, glabrous or puberulous, hairy adaxially. Leaf-blade margins scabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Peduncle pilose above. Racemes 1, single, oblong, bilateral, 2.5–5 cm long, 15–25 mm wide. Rhachis fragile at the nodes. Spikelet packing broadside to rhachis, crowded. Rhachis internodes oblong, falling with spikelet above. Spikelets ascending, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 3–5 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 15–25 mm long, falling entire, deciduous with accessory branch structures, readily shedding fertile florets.

Glumes. Glumes similar, shorter than spikelet. Lower glume linear, 7–10 mm long, 1 length of upper glume, coriaceous, 1-keeled, keeled all along, 3–5 -veined. Lower glume surface villous. Lower glume apex acuminate, awned, 1 -awned, awn 6–7 mm long. Upper glume linear, 7–10 mm long, 1 length of adjacent fertile lemma, coriaceous, 1-keeled, keeled all along, 3–5 -veined. Upper glume surface villous. Upper glume apex acuminate, awned, 1 -awned, awn 6–7 mm long.

Florets. Fertile lemma lanceolate, 7–10 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma lateral veins convergent above. Lemma surface villous. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 5–7 mm long overall. Palea keels scabrous. Palea apex dentate, 2 -fid, awned, awns 0.5–1.5 mm long. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, ciliate. Ovary with a fleshy appendage below style insertion, pubescent on apex. Caryopsis with adherent pericarp, oblong, sulcate on hilar side, hairy at apex, apex fleshy. Embryo 0.2 length of caryopsis. Hilum linear, 1 length of caryopsis.

$N = 7$ (1 ref TROPICOS). $2n = 14$ (2 refs TROPICOS), or 28 (2 refs TROPICOS).

Distribution (TDWG). Continent. Europe, Africa, Temperate Asia, Tropical Asia.

Region. Eastern Europe.

Country /Province /State. East European Russia, South European Russia. **Northern Africa.** Egypt. **Middle Asia, Caucasus, Western Asia, Arabian Peninsula, China, Russia.** Kazakhstan, Kirgizistan, Turkmenistan, Tadjikistan, Uzbekistan. Transcaucasus. Afghanistan, Iran. Kuwait. Xinjiang. **Indian Subcontinent.** Pakistan.

TDWG4. Jammu Kashmir.

Eremopyrum orientale (L.) Jaub. & Spach. *Illustr.* iv. 26 (1851).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983).

Basionym or Replaced Name: *Secale orientale* L., *Sp. Pl.* 1: 84 (1753)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: NT: *Tournefort 4939*, Gramen secalinum armenium, spica brevis et lata" (P-TO). NT (as LT) designated by Bowden, *Canad. J. Bot.* 40: 1701 (1962), but not seen by him; see Frederiksen, *Nordic J. Bot.* 11(3): 277 (1991).

Recent Synonyms: *Triticum orientale* (L.) Bieb., *Fl. Taur. Cauc.* 1: 86 (1808).

Illustrations (Books): H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962) (182, Fig. 104 as *Agropyron*), N.L.Bor, *Gramineae in Flora of Iraq* (1968) (237, Pl. 81), T.A.Cope, *Flora of Pakistan* 143: *Poaceae* (1982) (607, Fig 72), M.E.Barkworth et al, *Flora of North America north of Mexico Vol 24 Poaceae*, part 1 (2007), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 617).

Derivation (Clifford & Bostock 2007): L. oriens, the east; -alis, pertaining to. From the eastern Mediterranean through to Turkey.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or decumbent, 10–25 cm long. Leaf-sheath oral hairs lacking. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades 3–6 cm long, 2–3 mm wide. Leaf-blade surface scaberulous, rough adaxially, glabrous or puberulous, hairy adaxially. Leaf-blade margins scabrous. Leaf-blade apex acute.

Inflorescence. Inflorescence composed of racemes, subtended by an unspecialized leaf-sheath or an inflated leaf-sheath. Peduncle pubescent above. Racemes 1, single, oblong or ovate, bilateral, 1–2.5 cm long, 10–15 mm wide. Rhachis fragile at the nodes. Spikelet packing broadside to rhachis, crowded. Rhachis internodes oblong, falling with spikelet above. Spikelets ascending, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 10–15 mm long, falling entire, deciduous with accessory branch structures, readily shedding fertile florets.

Glumes. Glumes similar, shorter than spikelet, recurved at apex. Lower glume lanceolate, 8–10 mm long, 1 length of upper glume, coriaceous, 1-keeled, keeled all along, 3–5 -veined. Lower glume surface hispid. Lower glume apex acuminate, awned, 1 -awned, awn 2–5 mm long. Upper glume lanceolate, 8–10 mm long, 1 length of adjacent fertile lemma, coriaceous, 1-keeled, keeled all along, 3–5 -veined. Upper glume surface hispid. Upper glume apex acuminate, awned, 1 -awned, awn 2–5 mm long.

Florets. Fertile lemma lanceolate, 8–10 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma lateral veins convergent above. Lemma surface hispid. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 4–5 mm long overall. Palea keels scabrous. Palea surface pubescent, hairy on back. Palea apex dentate, 2 -fid, muticous. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Lodicules 2, ciliate. Ovary with a fleshy appendage below style insertion, pubescent on apex. Caryopsis with adherent pericarp, oblong, sulcate on hilar side, hairy at apex, apex fleshy. Embryo 0.2 length of caryopsis. Hilum linear, 1 length of caryopsis.

$N = 14$ (1 ref TROPICOS). $2n = 28$ (8 refs TROPICOS).

Distribution (TDWG). Continent. Europe, Africa, Temperate Asia, Tropical Asia, North America.

Region. Northern Europe (*), **Southeastern Europe, Eastern Europe.**

Country /Province /State. : GB Aliens (Ryves et al). : Romania. Krym, Central European Russia, East European Russia, South European Russia, Northwest European Russia, Ukraine. **Northern Africa.** Algeria, Morocco, Tunisia. Siberia, **Middle Asia, Caucasus, Western Asia, Arabian Peninsula, China, Russia.** Kazakhstan, Kirgizistan, Turkmenistan, Tadjikistan, Uzbekistan. Iran, Iraq. Inner Mongolia, Tibet, Xinjiang. **Indian Subcontinent.** Pakistan. **Western Canada.** British Columbia.

TDWG4. Jammu Kashmir.

Eremopyrum triticeum (Gaertn.) Nevski. *Acta Inst. Bot. Acad. Sc. URSS, Ser. I. Fasc. 1*, 18 (1934).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), S-L Chen et al, *Flora of China 22* (Poaceae) (2006), T.G.Tutin et al, *Flora Europaea 5* (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983).

TYPE from Russia. **Basionym or Replaced Name:** *Agropyron triticeum* Gaertn., *Novi Comment. Acad. Sci. Imp. Petrop.* 14(1): 539–540 (1770)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: INT: (LE).

NT: V. Bogdan Herb. Fl. Ross. 849, May 1899, European Russia: [S Urals]: Samara region: Novouzensk dist. (LE). Orig. label : "Novouzenskij u., Samarskoj gub., v stepi blizsel. Valujki...".

LT: Gaertner, Nov. Comm. Acad. Sci. Petrol. 14: 1, t.19, f. 4–5, 1770, LT designated by Frederiksen, *Nordic J. Bot.* 11: 276 (1991).

Recent Synonyms: *Agropyron pumilum* (L. f.) P. Beauv., *Agrost.* 102 (1812).

Illustrations (Books): D.Sharp & B.K.Simon, *AusGrass.* Grasses of Australia. CD-Rom Version 1.0. (2002), M.E.Barkworth et al, *Flora of North America north of Mexico Vol 24 Poaceae*, part 1 (2007) (255).

Derivation (Clifford & Bostock 2007): resembling *Triticum* with respect to the inflorescence.

Classification. Subfamily Pooideae. Tribe: Triticeae.

Habit, Vegetative Morphology. Annual. Culms 15–30 cm long. Leaf-sheath oral hairs lacking. Leaf-sheath auricles falcate. Ligule an eciliate membrane. Leaf-blades 2–4 cm long, 1–2 mm wide. Leaf-blade surface pilose, hairy adaxially. Leaf-blade margins scaberulous.

Inflorescence. Inflorescence composed of racemes, deciduous as a whole, subtended by an inflated leaf-sheath. Peduncle pubescent above. Racemes 1, single, oblong, bilateral, 0.9–1.7 cm long. Spikelet packing broadside to rachis, crowded. Rachis internodes oblong. Spikelets pectinate, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2–3 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 6–10 mm long, breaking up at maturity, disarticulating between fertile florets but the lowest falling with glumes attached.

Glumes. Glumes similar, shorter than spikelet. Lower glume lanceolate, gibbous, 4–6 mm long, 1 length of upper glume, coriaceous, 1-keeled, keeled all along, 1 -veined. Lower glume lateral veins absent. Lower glume surface grooved on either side of midvein. Lower glume apex cuspidate. Upper glume lanceolate, gibbous, 4–6 mm long, 1 length of adjacent fertile lemma, coriaceous, 1-keeled, keeled all along, 1 -veined. Upper glume primary vein grooved on either side. Upper glume lateral veins absent. Upper glume apex cuspidate.

Florets. Fertile florets with the lowest dissimilar. Lowest fertile lemma hairy (pubescent below). Fertile lemma lanceolate, 5–6 mm long, coriaceous, keeled, keeled above, 5 -veined, more than 3-veined. Lemma surface glabrous. Lemma apex acuminate, mucronate. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Ovary with a fleshy appendage below style insertion, pubescent on apex. Caryopsis with adherent pericarp, hairy at apex, apex fleshy. Hilum linear.

$N = 7$ (1 ref TROPICOS). $2n = 14$ (3 refs TROPICOS).

Distribution (TDWG). Continent. Europe, Temperate Asia, Australasia (*), North America.

Region. Northern Europe (*), **Southeastern Europe, Eastern Europe.**

Country /Province /State. : GB Aliens (Ryves et al). : Romania. Krym, Central European Russia, East European Russia, South European Russia, Northwest European Russia, Ukraine. Siberia, **Middle Asia, Caucasus, Western Asia, China, Russia.** Kazakhstan, Kirgizistan, Turkmenistan, Tadjikistan, Uzbekistan. North Caucasus, Transcaucasus. Iran. Inner Mongolia, Xinjiang. **Australia.** New South Wales (*). **Western Canada, Northwest USA, Southwestern USA, South-central USA.** Alberta, British Columbia, Saskatchewan. Colorado, Idaho, Montana, Oregon, Washington, Wyoming. Arizona, Nevada, Utah. New Mexico.

TDWG4. Western Slopes.

Eriachne agrostidea F. Muell. *Fragm.* vii. 82. (1870).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Schultz 135*, 201, Australia: Northern Territory: Darwin and Gulf District: Port Darwin (MEL-95274 (central specimen)). LT designated by Lazarides, *Austral. Syst. Bot.* 8: 363 (1995); both numbers are mounted on the same sheet, and it is uncertain which number pertains to which specimen--*fide* Lazarides.

LT: *Schultz 201*, Australia: Port Darwin.

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (165, Fig 27), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): Gk. -idea, resembling. Similar to *Agrostis* in habit or inflorescence.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Annual. Culms 5–30 cm long. Ligule a fringe of hairs. Leaf-blades filiform, 1.5–9 cm long, 0.5 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, dense or loose, 1–3 cm long, bearing few spikelets. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 3–3.5 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pilose.

Glumes. Glumes persistent, similar, reaching apex of florets or exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 1 length of upper glume, membranous, without keels, 7 -veined. Lower glume apex acuminate, mucronate. Upper glume ovate, 3–3.5 mm long, membranous, without keels, 7 -veined. Upper glume apex acuminate, mucronate.

Florets. Fertile lemma ovate, laterally compressed, 3 mm long, coriaceous, without keel, more than 3-veined. Lemma surface glabrous. Lemma margins involute, ciliate. Lemma apex acute, awned, 1 -awned. Principal lemma awn 4.5–17 mm long overall. Palea 1 length of lemma, cartilaginous.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory, Queensland. Darwin & Gulf. North.

Eriachne aristidea F. Muell. *Fragm.* v. 205. (1866).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Oldfield s.n.*, Australia: Western Australia: Eremaean Province, near Oolingara, Murchinson River (MEL; IT: BRI, K, PERTH).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (420, Fig 350), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (47& 53, Pl 12 & 13), J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (1175, Fig 332), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (260), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;, K.Domin, *Bibliotheca Botanica* 85 (1915) (355, Fig.78).

Derivation (Clifford & Bostock 2007): resembling *Aristida*..

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Annual or perennial, short-lived, caespitose, clumped loosely. Cataphylls evident. Culms geniculately ascending, 10–40 cm long, 1–3 -noded. Culm-nodes bearded. Lateral branches lacking or sparse. Leaf-sheaths glabrous on surface or hispid, with tubercle-based hairs. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs. Leaf-blades flat or conduplicate or involute, 7–14 cm long, 3–6 mm wide. Leaf-blade margins cartilaginous.

Inflorescence. Inflorescence a panicle. Peduncle glabrous or pubescent above. Panicle open, elliptic, 5–10 cm long, 2.5–4.5 cm wide. Panicle axis pubescent. Panicle branches pubescent. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–8 mm long, pubescent, tip widened.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets

ovate, laterally compressed, compressed slightly, 8–10 mm long, breaking up at maturity, disarticulating below each fertile floret. Spikelet callus attached obliquely.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume lanceolate or ovate, 1 length of upper glume, membranous, without keels, 11–13 -veined. Lower glume lateral veins prominent. Lower glume surface pilose, with tubercle-based hairs. Lower glume apex acuminate. Upper glume lanceolate or ovate, 8–10 mm long, membranous, with hyaline margins, without keels, 11–13 -veined. Upper glume lateral veins prominent. Upper glume surface pilose, with tubercle-based hairs. Upper glume apex acuminate.

Florets. Fertile lemma ovate, laterally compressed, 7–9 mm long, coriaceous, without keel, more than 3-veined. Lemma surface villous, hairy below. Lemma margins involute. Lemma apex acute, awned, 1 -awned. Principal lemma awn 7–9 mm long overall. Palea 1 length of lemma, cartilaginous. Palea surface villous, hairy below. Palea apex awned, awns 3–4 mm long.

Flower and Fruit. Caryopsis with adherent pericarp, obovoid, 3–3.5 mm long, obtuse.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, South Australia, Queensland, New South Wales.

Ereman. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre. North, Central, Inland. Western Plains.

Eriachne armitii F. Muell. ex Benth. *Fl. Austral.* vii. 627 (1878).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), T.Koyama, *Grasses of Japan and its neighboring regions* (1987).

TYPE from Australia, Queensland. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *W.E.D.M. Armit 514*, 1876, Australia: Queensland: Cook District: Gilbert River (K; ILT: A, MEL-95273, US). LT designated by Lazarides, *Austral. Syst. Bot.* 8: 366 (1995).

Illustrations (Books): E.E.Henty, *A Manual of the Grasses of New Guinea* (1969) (91, Pl. 35), J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (1169, Fig. 331), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): in honor of William Edington de Margrat Armit (1848–1901) Belgian-born police officer and magistrate in Queensland and Papua New Guinea.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Annual or perennial, short-lived. Culms erect or geniculately ascending, 15–37 cm long, 2–3 -noded. Lateral branches lacking. Leaf-sheaths glabrous on surface or hispid, outer margin hairy. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs. Leaf-blades 2–3 mm wide. Leaf-blade surface hispid, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Peduncle hirsute above. Panicle contracted, oblong or ovate, 3.5–7 cm long, 2.5–5 cm wide. Primary panicle branches appressed, 0.5–1.25 cm long. Panicle axis villous. Panicle branches villous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–3.75 mm long, villous.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 8.75–11 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume lanceolate, 1 length of upper glume, membranous, without keels, 9–11 -veined. Lower glume surface glabrous. Lower glume margins tuberculately ciliate. Lower glume apex acute, mucronate. Upper glume lanceolate, 8.75–11 mm long, membranous, without keels, 9–11 -veined. Upper glume surface glabrous. Upper glume margins tuberculate, ciliate. Upper glume apex setaceously acuminate.

Florets. Fertile lemma elliptic or obovate, laterally compressed, 3–4 mm long, coriaceous, without keel, more than 3-veined. Lemma surface villous. Lemma margins involute. Lemma apex acute, awned, 1 -awned. Principal lemma awn 20–25 mm long overall. Palea 1 length of lemma, cartilaginous. Palea surface villous. Palea apex awned, awns 3–4 mm long.

Flower and Fruit. Caryopsis with adherent pericarp, obovoid, 1.5–2 mm long.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia, Australasia.

Country /Province /State. Eastern Asia. Nansei-Shoto. **Papuasiasia.** New Guinea. **Australia.** Western Australia, Northern Territory, Queensland.

Kimberley. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. North, Central, Inland.

Eriachne avenacea R. Br. *Prod.* 184. (1810).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *R. Brown 6263*, 14 Feb 1803, Australia: Northern Territory, Darwin and Gulf District, Cavern Island (BM; IT: B, BRI, C, CANB, E, F, G, K, US-734047).

Illustrations (Books): J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (1169, Fig 331), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (160, Fig 26), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. -acea, resembling. With inflorescences and/or spikelets similar to those of *Avena*..

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Annual or perennial, short-lived, caespitose. Culms erect or geniculately ascending, 20–52 cm long, 3–6 -noded. Culm-internodes distally glabrous or hispid. Culm-nodes glabrous or pubescent. Lateral branches lacking or sparse. Ligule a fringe of hairs, 0.3–0.5 mm long. Leaf-blades filiform, involute, 10–20 cm long, 1 mm wide. Leaf-blade surface glabrous or hispid, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, linear or oblong or ovate, 2.5–7 cm long, 0.5–5 cm wide. Primary panicle branches 0.4–3 cm long. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 4–30 mm long.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 4.8–9 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet or reaching apex of florets, thinner than fertile lemma. Lower glume elliptic, 1 length of upper glume, membranous, without keels, 9–13 -veined. Lower glume surface glabrous or hispid, hairy between veins. Lower glume apex acute. Upper glume elliptic, 4.8–8 mm long, membranous, without keels, 9–13 -veined. Upper glume surface glabrous or hispid, hairy between veins. Upper glume apex acute.

Florets. Fertile lemma ovate, laterally compressed, 4.5–9 mm long, coriaceous, without keel, 5–7 -veined, more than 3-veined. Lemma surface pilose, hairy at base. Lemma margins involute, ciliate, hairy all along. Lemma apex acute, awned, 1 -awned. Principal lemma awn 1.8–4 mm long overall. Palea 1 length of lemma, cartilaginous. Palea surface pilose, hairy at base. Palea apex entire or dentate, 2 -fid.

Flower and Fruit. Caryopsis with adherent pericarp, obovoid, 2.5–4.3 mm long, light brown, obtuse.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory.

Kimberley. Darwin & Gulf, Victoria R & Barkly Tableland.

Eriachne axillaris M. Lazarides. *Austral. Syst. Bot.*, 8(3): 368 (1995).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia: Northern Territory: Darwin and Gulf District: Little Nourlangie Rock, 12.24S 132.48E, 18 Mar 1979, *C.R. Dunlop 5103* (HT: CANB; IT: BRI, DNA, NT).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (173, Fig 28), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Derivation (Clifford & Bostock 2007): L. axillary. With panicles arising from the upper leaf axils.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, slender, 15–25 cm long, 6–7 -noded. Culm-internodes terete, smooth, distally glabrous. Culm-nodes pubescent. Lateral branches lacking. Leaf-sheaths tight, mostly shorter than adjacent culm internode, outer margin hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.3 mm long. Leaf-blades straight, filiform, involute, 1–2.5 cm long, 1 mm wide. Leaf-blade surface scabrous. Leaf-blade margins cartilaginous, tuberculate-ciliate.

Inflorescence. Inflorescence a panicle, terminal and axillary. Axillary inflorescences present throughout the plant, different from terminal (smaller), enclosed. Panicle open, ovate, 2–3 cm long, 1–2 cm wide. Primary panicle branches 0.4–0.8 cm long. Panicle branches glabrous, glabrous in axils, with prominent pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 4–8 mm long.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets

ovate, laterally compressed, compressed slightly, 3.5–4.3 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus 0.3–0.5 mm long, bearded, acute.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume elliptic, 3 mm long, 1 length of upper glume, membranous, much thinner on margins, without keels, 7–9 -veined. Lower glume apex acute, mucicous or mucronate. Upper glume elliptic, 3 mm long, 0.9 length of adjacent fertile lemma, membranous, with hyaline margins, without keels, 7–9 -veined. Upper glume apex acute, mucicous or mucronate.

Florets. Fertile lemma elliptic, laterally compressed, 3.5–4.3 mm long, membranous, without keel, 5 -veined, more than 3-veined. Lemma surface villous, hairy below. Lemma margins involute, ciliate, hairy below. Lemma apex acute, mucronate or awned, 1 -awned. Principal lemma awn 0.6–1 mm long overall. Palea 2 -veined. Palea surface pubescent, hairy at base. Palea apex entire.

Flower and Fruit. Lodicules 2. Anthers 3, 0.2–0.3 mm long, retained within floret. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory.
Darwin & Gulf.

Eriachne basalis M. Lazarides. *Austral. Syst. Bot.*, 8(3): 369 (1995).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Northern Territory: Darwin and Gulf District: on Nutwood Downs Station, 16.03S 134.18E, 2 MAY 1947, *S.T. Blake 17597* (HT: CANB; IT: BRI, CANB).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (143, Fig 23), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. basis*, base; -alis, pertaining to.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Annual. Butt sheaths sparsely hairy. Culms erect or geniculately ascending, 35–60 cm long. Culm-internodes smooth. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheaths tight, outer margin hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.3–0.6 mm long. Leaf-blades involute or convolute, 10–20 cm long, 2–3 mm wide. Leaf-blade surface ribbed, papillose, glabrous or pilose.

Inflorescence. Inflorescence a panicle, terminal and axillary. Axillary inflorescences present in lower axils. Peduncle scaberulous above. Panicle open, oblong, 10–12 cm long, 3–5 cm wide. Primary panicle branches 2–5 cm long. Panicle branches scabrous, pubescent in axils or bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 5–11 mm long.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 5–5.5 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus 0.3–0.5 mm long, bearded, obtuse.

Glumes. Glumes persistent, similar, shorter than spikelet or reaching apex of florets, thinner than fertile lemma. Lower glume elliptic or oblong, 4.8–8 mm long, 1 length of upper glume, membranous, much thinner on margins, without keels, 11–13 -veined. Lower glume margins ciliolate. Lower glume apex acuminate or cuspidate. Upper glume elliptic or oblong, 4.8–8 mm long, 1–1.5 length of adjacent fertile lemma, membranous, with hyaline margins, without keels, 11–13 -veined. Upper glume margins ciliolate. Upper glume apex acuminate or cuspidate.

Florets. Fertile lemma elliptic, laterally compressed, 5–5.5 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma lateral veins thickened. Lemma surface pilose, hairy below, inner surface pubescent. Lemma margins involute. Lemma apex acute, scabrous, awned, 1 -awned. Principal lemma awn curved, flat below, 18 mm long overall. Palea elliptic, 5–6 mm long, coriaceous, 2 -veined. Palea surface pilose, hairy below. Palea apex dentate, 2 -fid, scaberulous.

Flower and Fruit. Anthers 3, 1.6–2 mm long. Caryopsis with adherent pericarp, obovoid, 2 mm long, truncate. Embryo 0.33 length of caryopsis.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory, Queensland.
Darwin & Gulf. North.

Eriachne basedowii Hartley. *Journ. Linn. Soc. Lond., Bot.*, lii. 344 (1942).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *H. Basedow 116*, Apr–may 1928, Australia: Northern Territory: Darwin and Gulf District: Arnhem Land (K; IT: AD, BRI).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (157, Fig 25), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): in honor of Herbert Basedow (1881–1933) South Australian geologist.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths woolly. Culms erect, 40–80 cm long. Lateral branches lacking. Leaf-sheaths glabrous on surface or pilose. Ligule a fringe of hairs. Leaf-blades erect, filiform, involute, 5–12 cm long, 1–2 mm wide, stiff. Leaf-blade surface glabrous or hispid, sparsely hairy. Leaf-blade apex pungent.

Inflorescence. Inflorescence a panicle. Peduncle scaberulous above. Panicle contracted or spiciform, linear, 2.5–3.5 cm long, 0.7–1 cm wide. Spikelets solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 7 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume lanceolate or oblong, 1 length of upper glume, membranous, without keels, 9 -veined. Lower glume surface villous. Lower glume apex obtuse or acute. Upper glume lanceolate or oblong, 7 mm long, membranous, without keels, 9 -veined. Upper glume surface villous. Upper glume apex obtuse or acute.

Florets. Fertile lemma lanceolate, laterally compressed, 6 mm long, chartaceous, without keel, 7 -veined, more than 3-veined. Lemma lateral veins prominent. Lemma surface scaberulous, rough above, villous, hairy below. Lemma margins involute. Lemma apex acute, awned, 1 -awned. Principal lemma awn 1.5 mm long overall. Palea lanceolate, 1 length of lemma, chartaceous. Palea surface pubescent. Palea apex acuminate.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory. Darwin & Gulf, Victoria R & Barkly Tableland.

Eriachne benthamii Hartley. *Journ. Linn. Soc. Lond., Bot.*, lii. 345 (1942).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Giles s.n.*, Australia: Northern Territory: Central Australia: Charlotte Waters (K; IT: MEL).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (423, Fig 354), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): in honor of George Bentham (1800–1884) English botanist.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Butt sheaths pubescent. Culms erect or geniculately ascending, 45–90 cm long. Culm-internodes distally pruinose. Culm-nodes glabrous or pubescent. Lateral branches lacking or sparse. Leaf-sheaths tight. Leaf-sheath oral hairs scanty or ciliate. Ligule a fringe of hairs, 0.5–1 mm long. Leaf-blades flat or convolute, 9–18 cm long, 2–4.5 mm wide. Leaf-blade surface papillose. Leaf-blade margins cartilaginous.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, dense or loose, 2.5–17 cm long, 1–3 cm wide. Primary panicle branches 3–7 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–3 mm long.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 6–10 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume lanceolate to oblong, 3.5–9 mm long, 1 length of upper glume, membranous or cartilaginous, much thinner on

margins, without keels, 9–11 -veined. Lower glume surface smooth or asperulous. Lower glume apex obtuse to acuminate. Upper glume lanceolate to oblong, 3.5–9 mm long, 0.6–0.9 length of adjacent fertile lemma, membranous or cartilaginous, with scarious margins, without keels, 9–11 -veined. Upper glume surface smooth or asperulous. Upper glume apex obtuse to acuminate.

Florets. Fertile lemma elliptic or oblong, laterally compressed, 6–10 mm long, coriaceous, much thinner on margins, without keel, 5–7 -veined, more than 3-veined. Lemma surface scaberulous, rough above, with 2 longitudinal grooves, pilose, hairy below. Lemma margins involute. Lemma apex acuminate, mucronate or awned, 1 -awned. Principal lemma awn 0–1.8 mm long overall. Palea gaping, coriaceous, 2 -veined. Palea surface scaberulous. Palea apex dentate, 2 -fid.

Flower and Fruit. Anthers 3, 3.8–4 mm long. Caryopsis with adherent pericarp, obovoid, 1.5–3 mm long, dark brown, truncate. Embryo 0.5 length of caryopsis.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, South Australia, Queensland. Kimberley, Ereman. Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre. Central, Inland.

Eriachne bleeseri Pilger. *Notizbl. Bot. Gart. Berlin*, x. 113 (1927).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *F.A.K. Bleeser 536*, 20 Dec 1925, Australia: Northern Territory: Darwin and Gulf District: Port Darwin (B; IT: MEL-95275).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (157, Fig 25), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): In honor of F. A. K. Bleeser (fl. 1925).

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms erect or geniculately ascending, slender, 15–42 cm long, 2 -noded. Culm-internodes striate, distally pubescent, with tubercle-based hairs. Culm-nodes bearded. Lateral branches lacking. Leaf-sheaths mostly shorter than adjacent culm internode. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs, 0.5 mm long. Leaf-blades curved or flexuous, filiform, conduplicate or involute, 10–23 cm long, 1–2 mm wide, stiff. Leaf-blade surface hispid, densely hairy, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Peduncle pilose above. Panicle contracted, lanceolate, 3–5 cm long, 0.5–1 cm wide. Primary panicle branches 0.5–1.5 cm long. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 3–15 mm long.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 6–8 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus 0.3 mm long, bearded, obtuse.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume elliptic or oblong, 3–4.3 mm long, 1 length of upper glume, membranous, much thinner on margins, without keels, 7 -veined. Lower glume apex acuminate or cuspidate. Upper glume elliptic or oblong, 0.5 length of adjacent fertile lemma, membranous, with hyaline margins, without keels, 7 -veined. Upper glume apex acuminate or cuspidate.

Florets. Fertile lemma lanceolate, laterally compressed, 6–8 mm long, membranous or cartilaginous, without keel, 5 -veined, more than 3-veined. Lemma surface pilose, hairy below. Lemma margins involute, eciliate. Lemma apex acute, awned, 1 -awned. Principal lemma awn 1–1.5 mm long overall. Palea 2 -veined. Palea surface glabrous. Palea apex entire.

Flower and Fruit. Lodicules 2. Anthers 3, 2.7 mm long, yellow. Caryopsis with adherent pericarp, ellipsoid or oblong, 1 mm long, obtuse. Embryo 0.1 length of caryopsis.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory. Darwin & Gulf.

Eriachne burkittii Jansen. *Meded. Herb. Leid. No. 59*, I (1930).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), J.F.Veldkamp, *Poaceae* ms (*Flora Malesiana*).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *Burkitt 12*, 1881, Australia: Northern Territory: Darwin and Gulf District: near Port Darwin, bridge Creek (L [77012]; ILT: BRI, MEL, US-1024920). LT designated by Eck-Borsboom, *Blumea* 26: 131 (1980).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (150, Fig 24), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): in honor of Burkitt (fl. 1881) who collected in Northern Australia.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Annual. Culms erect, 40–100 cm long. Culm-nodes pubescent. Ligule a fringe of hairs. Leaf-blades 10–25 cm long, 3–5 mm wide. Leaf-blade margins cartilaginous, scabrous.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 4–13 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 10–20 mm long.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 5.5–6 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume lanceolate, 1 length of upper glume, membranous, without keels. Lower glume lateral veins obscure. Lower glume apex attenuate. Upper glume lanceolate, 5.5–6 mm long, membranous, without keels. Upper glume lateral veins obscure. Upper glume apex acute, awned, 1 -awned, awn 1 mm long.

Florets. Fertile lemma ovate, laterally compressed, 5 mm long, coriaceous, without keel, more than 3-veined. Lemma surface villous, hairy below. Lemma margins involute. Lemma apex acute, awned, 1 -awned. Principal lemma awn 30 mm long overall. Palea 1 length of lemma, cartilaginous.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Tropical Asia, Australasia.

Country /Province /State. Papuaasia. New Guinea West Papua (Irian Jaya). New Guinea. **Australia.** Western Australia, Northern Territory, Queensland.

Kimberley. Darwin & Gulf. North.

Eriachne capillaris R. Br. *Prod.* 184. (1810).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *R. Brown 6265*, 1803, Australia: Northern Territory: Darwin and Gulf District: North Coast, Arnhem Bay (Bay 3) (BM; IT: B, BRI, C, CANB, E, G, K, US-734049).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (165, Fig 27), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Illustrations (Journals): *Hooker's Icones Plantarum* (t.2604 (1899) as *Achneria*).

Derivation (Clifford & Bostock 2007): *L. capillis*, a hair; -are, pertaining to.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, 20–30 cm long. Leaf-sheaths pilose. Ligule a fringe of hairs. Leaf-blades 1–2 cm long, 0.5–1 mm wide. Leaf-blade surface pilose, hairy abaxially.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 3–5 cm long. Primary panicle branches spreading. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 1–2 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 1 length of upper glume, membranous, without keels, 5–7 -veined. Lower glume lateral veins obscure. Lower glume apex acute. Upper glume ovate, 1–2 mm long, membranous, without keels, 5–7 -veined. Upper glume lateral veins obscure. Upper glume apex acute.

Florets. Fertile lemma ovate, laterally compressed, 1–2 mm long, membranous, without keel, more than 3-veined. Lemma surface pubescent, hairy below, with a transverse fringe of hair. Lemma margins involute. Lemma apex acute, mucous. Palea 1 length of lemma, cartilaginous.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory.

Darwin & Gulf.

Eriachne ciliata R. Br. *Prod.* 184. (1810).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *R. Brown 6264 pro parte*, 14 Feb 1803, Australia: Northern Territory: Darwin and Gulf District: Melville Bay (Arhem North Bay) (BM; IT: K).

Illustrations (Books): J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (1169, Fig 331), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (160, Fig 26), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. cilium*, eyelid; -ata, possessing. Plant hairy overall or in part.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Annual. Culms erect, slender, 15–35 cm long. Lateral branches ample. Leaf-sheaths antrorsely scabrous, hispid, with tubercle-based hairs. Ligule a fringe of hairs. Leaf-blades 1 mm wide. Leaf-blade surface scabrous, hispid, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Panicle open, lanceolate or ovate, 6–12 cm long, bearing few spikelets. Primary panicle branches appressed. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 3–4 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 1 length of upper glume, membranous, without keels. Lower glume apex acute. Upper glume ovate, 3–4 mm long, membranous, without keels. Upper glume apex acute.

Florets. Fertile lemma ovate, laterally compressed, 2.5–3.5 mm long, coriaceous, without keel, more than 3-veined. Lemma surface pilose. Lemma margins involute. Lemma apex acute, awned, 1 -awned. Principal lemma awn straight, filiform, 2–3 mm long overall. Palea 1 length of lemma, cartilaginous. Palea surface pilose.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland.

Kimberley. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. North, Central.

Eriachne compacta M. Lazarides. *Austral. Syst. Bot.*, 8(3): 377 (1995).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Northern Territory: Darwin and Gulf District: Kakadu National Park, 12.17S 132.52E, 23 May 1980, *M. Lazarides 8938* (HT: CANB; IT: BRI, DNA, K, L, MO, PE, PRE, US).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (165, Fig 27), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, slender, 40–100 cm long, 4–6 -noded. Culm-internodes terete, ridged. Culm-nodes glabrous. Lateral branches ample or fastigiate. Leaf-sheaths loose, mostly shorter than adjacent culm internode, wider than blade at the collar, smooth, glabrous on surface. Ligule a fringe of hairs, 0.2–0.3 mm long. Leaf-blades flat or convolute, 2.5–4 cm long, 2–3 mm wide. Leaf-blade surface scabrous, rough adaxially, pilose, hairy adaxially, with tubercle-based hairs. Leaf-blade margins cartilaginous, scaberulous.

Inflorescence. Inflorescence a panicle. Peduncle antrorsely scabrous above. Panicle capitate, ovate, 0.5–2.5 cm long, 0.5–1 cm wide. Primary panicle branches 0.4–0.8 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–2 mm long.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 5–6 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus 0.5 mm long, bearded, obtuse.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume ovate, 5–6 mm long, 1 length of upper glume, membranous, much thinner on margins, without keels, 9–11 -veined. Lower glume surface smooth or asperulous, rough above. Lower glume apex acuminate, muticous or mucronate. Upper glume ovate, 5–6 mm long, 1.2–1.3 length of adjacent fertile lemma, membranous, without keels, 9–11 -veined. Upper glume surface smooth or asperulous, rough above. Upper glume apex acuminate, muticous or mucronate.

Florets. Fertile lemma elliptic, laterally compressed, 4–4.5 mm long, coriaceous, without keel, 7 -veined, more than 3-veined. Lemma surface scabrous, rough above, pilose, hairy below. Lemma margins involute, eciliate or ciliate, hairy above. Lemma apex acute, awned, 1 -awned. Principal lemma awn 3–4 mm long overall. Palea coriaceous, 2 -veined. Palea keels ciliate, adorned above. Palea surface smooth or scabrous (above), pilose, hairy below. Palea apex dentate, 2 -fid.

Flower and Fruit. Anthers 3, 0.5–0.6 mm long. Caryopsis with adherent pericarp, obovoid, 1.2–1.6 mm long, dark brown. Embryo 0.25–0.33 length of caryopsis.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory.
Darwin & Gulf.

Eriachne fastigiata Lazarides. *Journ. Roy. Soc. W. Austral.* xlii. 33 . (1959).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Western Australia: near Clifton Creek, 2.5 mi NW of Glenroy Meatworks, 22 Apr 1955, *Lazarides 5142* (HT: CANB).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (173, Fig 28), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. fastigio*, sharpen to a point.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Annual or perennial, short-lived, caespitose. Butt sheaths pallid or yellow. Basal innovations intravaginal. Culms 27–38 cm long, wiry, 2–4 -noded. Culm-internodes unequal, the lower longer, smooth or papillose, distally glabrous or pubescent. Culm-nodes glabrous. Lateral branches ample. Leaves mostly basal. Leaf-sheaths hispid, with tubercle-based hairs, outer margin glabrous. Ligule a fringe of hairs, 1 mm long. Leaf-blades erect or reflexed, lanceolate, 1.5–2.5 cm long, 1.5–3 mm wide. Leaf-blade surface scaberulous, hispid, hairy abaxially, with tubercle-based hairs. Leaf-blade margins cartilaginous, ciliate. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Panicle spiciform, linear, 3–4.5 cm long. Primary panicle branches appressed, 0.3–0.7 cm long, bearing 2–3 fertile spikelets on each lower branch. Spikelets appressed, solitary. Fertile spikelets pedicelled. Pedicels present, 1–4.5 mm long.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets cuneate, laterally compressed, compressed slightly, 3–4 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, reaching apex of florets, thinner than fertile lemma, gaping. Lower glume elliptic, 1 length of upper glume, membranous, much thinner on margins, without keels, 5–7 -veined. Lower glume apex obtuse. Upper glume elliptic, 2.7–3.7 mm long, membranous, with hyaline margins, without keels, 5–7 -veined. Upper glume apex obtuse.

Florets. Fertile lemma elliptic or ovate, laterally compressed, 3–4 mm long, scarious, without keel, 7 -veined, more than 3-veined. Lemma surface scaberulous, rough above, pubescent, hairy below. Lemma margins involute. Lemma apex acuminate, muticous. Palea 1 length of lemma, scarious. Palea surface pubescent.

Flower and Fruit. Anthers 3, 2 mm long. Caryopsis with adherent pericarp, ellipsoid or oblong, 2–2.25 mm long, dark brown, obtuse.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory.
Kimberley. Darwin & Gulf, Victoria R & Barkly Tableland.

Eriachne festucacea F. Muell. *Fragm.* v. 205. (1866).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *F. Mueller s.n.*, Nov 1855, Australia: Northern Territory: Victoria River District: gravelly banks of Victoria River (MEL-95278).

Illustrations (Books): J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (1169, Fig 331), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. -acea, resembling. Resembling *Festuca* in some respect, usually the habit or inflorescence.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Cataphylls evident. Culms erect, 53–105 cm long, wiry, 3–5 -noded. Culm-internodes glaucous, smooth, distally glabrous. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheaths loose, mostly shorter than adjacent culm internode. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.3–0.5 mm long. Leaf-blades conduplicate or involute, 10–25 cm long, 2–3 mm wide. Leaf-blade surface ribbed, glabrous, hairless except near base.

Inflorescence. Inflorescence a panicle. Peduncle scaberulous above. Panicle open, lanceolate, 5.5–13 cm long, 1.5–3 cm wide. Primary panicle branches 4–8 cm long. Panicle branches scabrous, with scattered hairs or glabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–15 mm long.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 6–10 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, reaching apex of florets, thinner than fertile lemma. Lower glume lanceolate, 6–10 mm long, 1 length of upper glume, cartilaginous, much thinner on margins, without keels, 11–13 -veined. Lower glume lateral veins obscure. Lower glume apex setaceously acuminate. Upper glume lanceolate, 6–10 mm long, 1 length of adjacent fertile lemma, cartilaginous, with scarious margins, without keels, 11–13 -veined. Upper glume lateral veins obscure. Upper glume apex setaceously acuminate.

Florets. Fertile florets free at tip (straight) or recurved at tip. Fertile lemma lanceolate or ovate, laterally compressed, 5–8 mm long, cartilaginous, without keel, 7 -veined, more than 3-veined. Lemma lateral veins obscure. Lemma surface smooth or scaberulous, rough above, with 2 longitudinal grooves, pilose, hairy below. Lemma margins involute, ciliate, hairy below. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn straight or curved, 4–10 mm long overall. Palea 2 -veined. Palea surface pilose, hairy below. Palea apex entire.

Flower and Fruit. Lodicules 2, 0.3–0.5 mm long. Anthers 3, 3 mm long, yellow. Caryopsis with adherent pericarp, obovoid, 1.4–2 mm long, light brown, obtuse. Embryo 0.25–0.33 length of caryopsis.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory. Kimberley. Darwin & Gulf, Victoria R & Barkly Tableland.

Eriachne filiformis Hartley. *Journ. Linn. Soc. Lond., Bot.*, lii. 343 (1942).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *H. Basedow 81*, Apr-Jun 1928, Australia: Northern Territory: Darwin and Gulf District: Arnhem Land (K; IT: AD, BRI).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (165, Fig 27), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. filum, thread; forma, shape.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 3–15 cm long, 2–4 -noded. Culm-nodes glabrous or pubescent. Leaf-sheaths hispid. Ligule a fringe of hairs. Leaf-blades filiform, involute, 2–5 cm long, 0.5 mm wide. Leaf-blade surface pilose, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 1–2 cm long, bearing few spikelets. Panicle branches capillary, pilose. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 3–5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume elliptic or oblong, 1 length of upper glume, membranous, without keels, 9–11 -veined. Lower glume lateral

veins prominent. Lower glume surface hispid. Lower glume apex acuminate. Upper glume elliptic or oblong, 3–5 mm long, membranous, without keels, 9–11 -veined. Upper glume lateral veins prominent. Upper glume surface hispid. Upper glume apex acuminate.

Florets. Fertile lemma elliptic, laterally compressed, 2–3 mm long, cartilaginous, without keel, 7 -veined, more than 3-veined. Lemma lateral veins obscure. Lemma surface pubescent, hairy below. Lemma margins involute. Lemma apex acute, awned, 1 -awned. Principal lemma awn 3–4 mm long overall. Palea elliptic or obovate, 1 length of lemma, hyaline. Palea surface puberulous.

Flower and Fruit. Caryopsis with adherent pericarp, obovoid, 1.5–3 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory, Queensland. Darwin & Gulf. North.

Eriachne flaccida Hartley. *Journ. Linn. Soc. Lond., Bot.*, lii. 346 (1942).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *Helms s.n.*, 1899, Australia: Western Australia: Ereman Province: Pindinni, 70 mi ENE of Menzies (K; IT: B, PERTH).

Illustrations (Books): D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): L. unable to support its own weight. Inflorescence branches long and thin and so droop.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths woolly. Culms erect, 15–30 cm long, 1–3 -noded. Culm-internodes distally glabrous. Culm-nodes glabrous or pubescent. Lateral branches lacking. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs. Leaf-blades involute, 8–20 cm long, 1 mm wide, flaccid. Leaf-blade surface scaberulous, rough adaxially, glabrous.

Inflorescence. Inflorescence a panicle. Peduncle glabrous or pilose above. Panicle contracted, elliptic, 4–6 cm long, 1–2 cm wide. Primary panicle branches appressed or ascending or spreading. Panicle branches pilose. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 5–6.5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume ovate, 1 length of upper glume, membranous, much thinner on margins, without keels, 9–11 -veined. Lower glume apex obtuse or acute. Upper glume ovate, 3.5–4.5 mm long, membranous, with hyaline margins, without keels, 9–11 -veined. Upper glume apex obtuse or acute.

Florets. Fertile lemma lanceolate, laterally compressed, 6–6.5 mm long, chartaceous, without keel, 7 -veined, more than 3-veined. Lemma lateral veins prominent. Lemma surface villous, hairy below. Lemma margins involute. Lemma apex acute, muticous. Palea gaping, 1 length of lemma, chartaceous. Palea surface villous, hairy below.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory. Ereman, South-West. Central Australia.

Eriachne gardneri Hartley. *Journ. Linn. Soc. Lond., Bot.*, lii. 344 (1942).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *Gardner 3053*, 17 Aug 1932, Australia: Western Australia: Ereman Province, Ashburton River at Minderoo, 17 Aug 1932 (K; IT: PERTH).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): in honor of Charles Austin Gardner (1896–1970) English-born Western Australian botanist.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial. Butt sheaths pubescent. Culms erect or geniculately ascending, 30–70 cm long, 4 -noded. Culm-internodes smooth, distally glabrous. Culm-nodes bearded. Lateral branches ample. Leaf-sheaths mostly shorter than adjacent culm internode, outer margin hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 1 mm long. Leaf-blades flat or convolute, 10–20 cm long, 2–5 mm wide, coriaceous, glaucous. Leaf-blade midrib indistinct. Leaf-blade surface scaberulous, rough adaxially. Leaf-blade margins cartilaginous, smooth. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Peduncle smooth, glabrous. Panicle open, oblong, 5–9 cm long, 1–3 cm wide. Primary panicle branches 2–3.8 cm long. Panicle branches smooth, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–8 mm long, tip widened.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 7.5–10 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus 0.7 mm long.

Glumes. Glumes oblique, persistent, similar, reaching apex of florets, thinner than fertile lemma. Lower glume lanceolate or ovate, 7–10 mm long, 1 length of upper glume, cartilaginous, much thinner on margins, without keels, 11–15 -veined. Lower glume lateral veins obscure. Lower glume surface hispidulous, with tubercle-based hairs. Lower glume apex acute or acuminate. Upper glume lanceolate or ovate, 7–10 mm long, 1 length of adjacent fertile lemma, cartilaginous, with hyaline margins, without keels, 11–15 -veined. Upper glume lateral veins obscure. Upper glume surface hispidulous, with tubercle-based hairs. Upper glume apex acute or acuminate.

Florets. Fertile lemma elliptic, laterally compressed, 7.5–10 mm long, cartilaginous, without keel, 5–7 -veined, more than 3-veined. Lemma surface with 2 longitudinal grooves, villous, hairy below. Lemma margins involute, eciliate. Lemma apex acuminate, scabrous, muticous. Palea 2 -veined. Palea keels smooth. Palea surface pilose, hairy on back, hairy below. Palea apex dentate, 2 -fid, with excurrent keel veins.

Flower and Fruit. Lodicules 2, 0.6–0.7 mm long. Anthers 3, 2.5–4 mm long. Caryopsis with adherent pericarp, obovoid, 3–5 mm long, obtuse.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia. Eremean.

Eriachne glabrata (Maiden) Hartley. *Journ. Linn. Soc. Lond., Bot.*, lii. 347 (1942).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Eriachne obtusa* var. *glabrata* Maiden, *Agric. Gaz. N.S.W.* 19:836 (1908). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Port Jackson: *Forsyth* (NSW holo, B, BM, K).

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (260), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (145, Fig. 22), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Derivation (Clifford & Bostock 2007): *L. glaber*, smooth; -ata, possessing. Plant glabrous in whole or in part.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 15–30 cm long, 2–5 -noded. Culm-internodes distally woolly. Ligule a fringe of hairs. Leaf-blades erect, involute, 2–4(–8) cm long, 1–2 mm wide, stiff.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 2–4 cm long. Primary panicle branches simple, bearing spikelets almost to the base. Panicle branches scaberulous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets cuneate, laterally compressed, compressed slightly, 3–4 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume ovate, 2.5–3.5 mm long, 1 length of upper glume, membranous, without keels, 7–9 -veined. Lower glume apex obtuse. Upper glume ovate, 2.5–3.5 mm long, 0.8–0.9 length of adjacent fertile lemma, membranous, without keels, 5–7 -veined. Upper glume apex obtuse.

Florets. Fertile lemma ovate, laterally compressed, 3–4 mm long, chartaceous, without keel, 5–7 -veined, more than 3-veined. Lemma surface pubescent. Lemma margins involute, interlocking with palea keels. Lemma apex acute, muticous. Palea 1 length of lemma, chartaceous, 2 -veined. Palea surface pubescent, hairy on back.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland, New South Wales. North, Central, South East. Coast.

Eriachne glandulosa M. Lazarides. *Austral. Syst. Bot.*, 8(3): 384 (1995).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Mitchell Plateau: *Kenneally 8006* (CANB holo, PERTH).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (157, Fig 25), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Derivation (Clifford & Bostock 2007): *L. glans*, gland; -ula, diminutive; -osa, abundance.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial. Butt sheaths persistent and investing base of culm, with compacted dead sheaths. Culms erect, 11–30 cm long, 3 -noded. Culm-internodes channelled, smooth, distally glabrous. Culm-nodes glabrous. Lateral branches lacking. Leaves mostly basal. Leaf-sheaths loose, mostly shorter than adjacent culm internode, glabrous on surface or pilose, outer margin hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 1 mm long. Leaf-blades erect, flat or involute or convolute, 5–14.5 cm long, 2–3.3 mm wide, stiff. Leaf-blade surface scabrous, glabrous or pilose, hairy adaxially or on both sides. Leaf-blade margins cartilaginous. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle. Peduncle glabrous. Panicle open, ovate, 2.5–6 cm long, 2.5–4 cm wide. Primary panicle branches spreading or reflexed, 1–2 cm long. Panicle branches glandular, glabrous, glabrous in axils, with prominent pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 4–8 mm long, glabrous, tip widened.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 2.5–3.3 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume ovate, 1.6–2 mm long, 1 length of upper glume, membranous, much thinner on margins, without keels, 3–5 -veined. Lower glume apex obtuse or acute, muticous or mucronate. Upper glume ovate, 1.6–2 mm long, 0.66 length of adjacent fertile lemma, membranous, with hyaline margins, without keels, 3–5 -veined. Upper glume apex obtuse or acute, muticous or mucronate.

Florets. Fertile lemma lanceolate or oblong, laterally compressed, 2.5–3.3 mm long, membranous, without keel, 7 -veined, more than 3-veined. Lemma lateral veins ribbed. Lemma surface pubescent, hairy below. Lemma margins involute, eciliate. Lemma apex acute or acuminate, muticous. Palea 3–3.2 mm long, 2 -veined. Palea keels ciliate. Palea surface pubescent, hairy below. Palea apex entire.

Flower and Fruit. Lodicules 2. Anthers 3, 1.6–1.8 mm long. Caryopsis with adherent pericarp, obovoid, 1.5–1.7 mm long, obtuse. Embryo 0.2–0.25 length of caryopsis.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory. Kimberley. Darwin & Gulf.

Eriachne glauca R. Br. *Prod.* 184. (1810).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Carpentaria, Sweers Is.; *Brown 6262* (BM holo, BRI, E, F, G, K, US).

Illustrations (Books): J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (1169, Fig 331), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): *L. glauca*, bluish-green. Whole plant or any of its parts glaucous.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial. Culms erect, 15–60 cm long. Culm-nodes glabrous. Ligule a fringe of hairs. Leaf-blades involute, 2–3 mm wide. Leaf-blade surface glabrous. Leaf-blade margins scabrous.

Inflorescence. Inflorescence a panicle. Panicle open or contracted, oblong or ovate, 3–8 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 3–4 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 1 length of upper glume, membranous, without keels. Lower glume surface hispid, with tubercle-based hairs. Lower glume apex acuminate. Upper glume ovate, 3–4 mm long, membranous, without keels. Upper glume surface hispid, with tubercle-based hairs. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, laterally compressed, 4–5 mm long, chartaceous, without keel, more than 3-veined. Lemma surface villous, hairy below. Lemma margins involute. Lemma apex acute, awned, 1 -awned. Principal lemma awn 8–15 mm long overall. Palea 1 length of lemma, cartilaginous. Palea apex dentate, 2 -fid.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland, Kimberley, Eremean. Darwin & Gulf, Victoria R & Barkly Tableland. North, Central.

Eriachne helmsii (Domin) Hartley. *Biblioth. Bot.* xx. Heft 85, 362 (1915).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Eriachne mucronata* var. *helmsii* Domin, *Bibl. Bot.* 20:361 (1915). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Ferdinand R.: *Helms* (K holo).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (420, Fig 351), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (47, Pl 12), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (261), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): in honor of Richard Helms (1842–1914).

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial, caespitose. Cataphylls evident. Butt sheaths thickened and forming a bulb, woolly. Culms geniculately ascending or decumbent, 40–90 cm long, wiry, 6–10 -noded. Culm-nodes glabrous or pubescent. Lateral branches ample. Ligule a fringe of hairs. Leaf-blades flat or involute, 2.5–10 cm long, 2–3 mm wide. Leaf-blade surface scaberulous.

Inflorescence. Inflorescence a panicle. Panicle open, linear or oblong, 5–11 cm long, 1–2 cm wide, bearing few spikelets. Primary panicle branches appressed. Panicle branches capillary, scabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 5–15 mm long, scabrous.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 5–7 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume ovate, 1 length of upper glume, membranous, without keels, 9–11 -veined. Lower glume apex obtuse. Upper glume ovate, 4.5–6.5 mm long, membranous, without keels, 9–11 -veined. Upper glume apex obtuse.

Florets. Fertile lemma lanceolate, laterally compressed, 5–7 mm long, coriaceous, without keel, 7 -veined, more than 3-veined. Lemma lateral veins prominent. Lemma surface villous, hairy below. Lemma margins involute, ciliate. Lemma apex obtuse or acute, mucous. Palea lanceolate, 1 length of lemma, cartilaginous. Palea surface villous, hairy below.

Flower and Fruit. Caryopsis with adherent pericarp, oblong, 3 mm long, light brown, obtuse.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, South Australia, Queensland, New South Wales.

Eremean. Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre, Southern. Central, Inland. Western Plains.

Eriachne humilis Hartley. *Journ. Linn. Soc. Lond., Bot.*, lii. 343 (1942).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)*.

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia, Thursday Is.: *Bailey* (BRI holo).

Illustrations (Books): No illustration found (BKS).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. low growing. Short-statured in comparison with related species often prostrate.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 15–30 cm long, 2–3 -noded. Culm-nodes glabrous or pubescent. Leaf-sheaths loose, striately veined, hispid. Ligule a fringe of hairs. Leaf-blades filiform, 0.5–1 mm wide.

Inflorescence. Inflorescence a panicle, comprising 3–5 fertile spikelets. Panicle open, ovate, 1–3 cm long, bearing few spikelets. Primary panicle branches 0.4–1.5 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 4–15 mm long, tip widened.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 4 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume elliptic or obovate, 1 length of upper glume, membranous, without keels, 9–11 -veined. Lower glume lateral veins prominent. Lower glume apex obtuse. Upper glume elliptic or obovate, 4 mm long, membranous, without keels, 9–11 -veined. Upper glume lateral veins prominent. Upper glume apex obtuse.

Florets. Fertile lemma lanceolate or ovate, laterally compressed, 3.5 mm long, chartaceous, yellow, without keel, 7 -veined, more than 3-veined. Lemma lateral veins prominent. Lemma surface villous. Lemma margins involute. Lemma apex acute, awned, 1 -awned. Principal lemma awn 2–3 mm long overall. Palea elliptic, 1 length of lemma, chartaceous.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Tropical Asia, Australasia.

Country /Province /State. **Papuasiasia.** New Guinea West Papua (Irian Jaya). New Guinea. **Australia.** Queensland.
North, Central.

Eriachne imbricata M. Lazarides. *Austral. Syst. Bot.*, 8(3): 389 (1995).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia, Bungle Bungle Outcamp: *Kenneally 9251* (CANB holo, PERTH).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (157, Fig 25).

Derivation (Clifford & Bostock 2007): L. imbricare, overlap like roof-tiles.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Rootstock evident. Butt sheaths pubescent. Culms geniculately ascending, 23–50 cm long, wiry. Culm-nodes glabrous. Lateral branches fastigiate. Leaf-sheaths tight, longer than adjacent culm internode, glabrous on surface or pilose, outer margin hairy. Ligule a fringe of hairs, 0.5–1 mm long. Leaf-blades straight or curved or flexuous, filiform, conduplicate, 4–9 cm long, 1–2 mm wide. Leaf-blade surface scabrous, rough adaxially, glabrous or pilose, hairy abaxially. Leaf-blade margins cartilaginous, scabrous.

Inflorescence. Inflorescence a panicle. Panicle spiciform, linear, 2.5–4 cm long, 0.3–0.5 cm wide. Panicle branches glabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 2–5 mm long.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 5 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus 0.5 mm long, bearded, acute. Floret callus hairs 2 mm long.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume lanceolate or elliptic, 4–4.7 mm long, 1 length of upper glume, membranous, much thinner on margins, without keels, 9 -veined. Lower glume surface smooth or asperulous, rough between veins. Lower glume apex acuminate. Upper glume lanceolate or elliptic, 4–4.7 mm long, 0.8–0.9 length of adjacent fertile lemma,

membranous, with hyaline margins, without keels, 9 -veined. Upper glume surface smooth or asperulous, rough between veins. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, laterally compressed, 5 mm long, chartaceous, much thinner on margins, without keel, 7 -veined, more than 3-veined. Lemma surface with 2 longitudinal grooves, pilose, hairy at base. Lemma margins involute. Lemma apex acute, without ornament or scabrous, awned, 1 -awned. Principal lemma awn 3–4 mm long overall. Palea lanceolate, 6 mm long, coriaceous, 2 -veined. Palea keels ciliate. Palea surface glabrous or pubescent. Palea apex dentate, 2 -fid, scaberulous.

Flower and Fruit. Anthers 3, 2.4 mm long. Caryopsis with adherent pericarp, oblong, 2.7–5 mm long, obtuse. Embryo 0.2–0.25 length of caryopsis.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia. Kimberley.

Eriachne insularis Domin. *Biblioth. Bot.* 1 v. 362 (1915).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Stradbroke Is.: *Domin* (PR holo, K).

Illustrations (Books): No illustration found (BKS).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): *L. insula*, island; -are, pertaining to. Island species.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 50–60 cm long. Culm-nodes black. Ligule a fringe of hairs. Leaf-blades erect, filiform, convolute, 5–8 cm long, 1–2 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, effuse, 5–10 cm long. Panicle branches capillary. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 3.25–3.5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 1 length of upper glume, membranous, without keels, 9 -veined. Lower glume lateral veins prominent. Lower glume apex obtuse. Upper glume ovate, 3.25–3.5 mm long, membranous, without keels, 9 -veined. Upper glume lateral veins prominent. Upper glume apex obtuse.

Florets. Fertile lemma ovate, laterally compressed, 3 mm long, coriaceous, without keel, more than 3-veined. Lemma surface pilose. Lemma margins involute. Lemma apex acute, mucronate or awned, 1 -awned. Principal lemma awn 0.5–0.75 mm long overall. Palea 0.9 length of lemma, cartilaginous. Palea surface pilose.

Flower and Fruit. Caryopsis with adherent pericarp, obovoid, 1.5 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland. North, Central, South East.

Eriachne lanata M. Lazarides. *Austral. Syst. Bot.*, 8(3): 391 (1995).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Sahara Track, Telegraph Line: *George 9159* (PERTH holo).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (157 & 160, Fig 25 & 26).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): *L. lana*, wool; -ata, possessing. Leaf-blades densely pubescent.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Rootstock evident. Rhizomes absent or short. Butt sheaths pilose or woolly. Culms erect or geniculately ascending, 45–60 cm long, wiry, 4–6 -noded. Culm-internodes striate, smooth or scaberulous, distally glabrous or hispid, with tubercle-based hairs. Culm-nodes glabrous or pubescent or bearded. Lateral branches lacking or sparse. Leaf-sheaths tight, mostly shorter than adjacent culm internode, outer margin hairy. Ligule a fringe of hairs, 0.5–1 mm long. Leaf-blades

curved or flexuous, filiform, conduplicate, 2–3 mm wide, stiff. Leaf-blade surface scabrous, rough adaxially, glabrous or pilose, with tubercle-based hairs. Leaf-blade margins ciliate, hairy at base.

Inflorescence. Inflorescence a panicle. Peduncle glabrous. Panicle open, oblong, 6–10 cm long, 2.5–6 cm wide. Primary panicle branches profusely divided, branching dichotomously, 3–5 cm long. Panicle branches capillary, smooth, glabrous, with prominent pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 5–10 mm long, tip widened.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 3.5–5 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus 0.3 mm long, bearded, acute.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume ovate, 2.6–5 mm long, 1 length of upper glume, membranous, much thinner on margins, yellow or purple, without keels, 9–11 -veined. Lower glume apex obtuse or acute. Upper glume ovate, 2.6–5 mm long, 0.75–0.9 length of adjacent fertile lemma, membranous, with hyaline margins, yellow or purple, without keels, 9–11 -veined. Upper glume apex obtuse or acute.

Florets. Fertile lemma elliptic, laterally compressed, 3.5–5 mm long, membranous, much thinner on margins, without keel, 5 -veined, more than 3-veined. Lemma surface villous, hairy below. Lemma margins involute, ciliate, hairy below. Lemma apex acuminate, muticous. Palea 1 length of lemma, 2 -veined. Palea surface pubescent, hairy on back. Palea apex dentate, 2 -fid.

Flower and Fruit. Lodicules 2. Anthers 3, 1.6–1.8 mm long. Caryopsis with adherent pericarp, ellipsoid or obovoid, 1.5–2.5 mm long, obtuse. Embryo 0.2–0.33 length of caryopsis.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia. Eremean.

Eriachne major (Ewart & O.B. Davies) M. Lazarides. *Austral. Syst. Bot.*, 8(3): 392 (1995).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, U. Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Australia. **Basionym or Replaced Name:** *Eriachne obtusa* var. *major* Ewart & O.B. Davies, *Fl. N. Territory* 44 (1917)

. T: <Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *G.F. Hill 704*, 30 Dec 1911, Australia: Northern Territory: Darwin and Gulf District: five-mile bar, MacArthur River (MEL-19007, 19008; IT: K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. larger. Larger in some respect than related species.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial. Rootstock evident. Cataphylls evident. Butt sheaths pubescent. Culms erect, 45–105 cm long, wiry, 3–6 -noded. Culm-internodes striate, scaberulous, distally glabrous. Culm-nodes glabrous. Lateral branches lacking or sparse. Leaf-sheaths tight, mostly shorter than adjacent culm internode, outer margin glabrous. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.3–0.6 mm long. Leaf-blades spreading, flat or involute or convolute, 10–20 cm long, 2–3 mm wide, stiff, glaucous. Leaf-blade surface ribbed, scaberulous, glabrous or hispid. Leaf-blade margins cartilaginous, glabrous or tuberculate-ciliate.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 5.5–10 cm long, 3.5–6 cm wide. Primary panicle branches 2–4 cm long. Panicle branches capillary, scaberulous, with scattered hairs or glabrous, bearded in axils, with prominent pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 9–18 mm long.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 4.2–5.3 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus 0.2–0.3 mm long, bearded.

Glumes. Glumes oblique, persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume elliptic, 4–4.6 mm long, 0.9 length of upper glume, cartilaginous, much thinner on margins, without keels, 5–7 -veined. Lower glume apex acuminate. Upper glume elliptic, 4.2–5.3 mm long, 1.1 length of adjacent fertile lemma, cartilaginous, with hyaline margins, without keels, 5–7 -veined. Upper glume apex acuminate.

Florets. Fertile lemma elliptic, laterally compressed, 4–5 mm long, cartilaginous, much thinner on margins, without keel, 5 -veined, more than 3-veined. Lemma surface villous, hairy below. Lemma margins involute, ciliate, hairy all along. Lemma apex acuminate, muticous. Palea 2 -veined. Palea surface pilose, hairy below. Palea apex entire.

Flower and Fruit. Lodicules 2. Anthers 3, 2.5 mm long. Caryopsis with adherent pericarp, ellipsoid or obovoid, 1.8–2 mm long, light brown. Embryo 0.25 length of caryopsis.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory, Queensland.

Eriachne melicacea F. Muell. *Fragm.* v. 205. (1866).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia, Victoria R.: *Mueller* (MEL holo, B, BRI, K).

Illustrations (Books): C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (47, Pl 12), J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (1169, Fig 331), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. -acea, resembling. Similar to *Melica*..

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect, 10–30 cm long. Culm-nodes pubescent. Lateral branches lacking. Leaf-sheaths hispid, with tubercle-based hairs. Ligule a fringe of hairs. Leaf-blades 8–15 cm long, 1–2 mm wide. Leaf-blade surface hispid, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Panicle open, linear, 1–3 cm long. Primary panicle branches indistinct the panicle almost racemose. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 7 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume ovate, 1 length of upper glume, membranous, purple, without keels, 11 -veined. Lower glume lateral veins prominent. Lower glume surface pubescent, hairy between veins. Lower glume apex acute. Upper glume ovate, 4–5 mm long, membranous, purple, without keels, 11 -veined. Upper glume lateral veins prominent. Upper glume surface pubescent, hairy between veins. Upper glume apex acute.

Florets. Fertile lemma lanceolate or ovate, laterally compressed, 7 mm long, coriaceous, without keel, more than 3-veined. Lemma lateral veins prominent. Lemma surface pubescent, hairy below. Lemma margins involute, ciliate. Lemma apex acute, mucicous. Palea 1 length of lemma, cartilaginous. Palea surface pubescent, hairy below.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland.

Kimberley, Ereman. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. North, Central.

Eriachne minuta M. Lazarides. *Austral. Syst. Bot.*, 8(3): 395 (1995).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia, Kakadu Nat. Park: *Dunlop 4849* (CANB holo, BRI, DNA).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (173, Fig 28), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Derivation (Clifford & Bostock 2007): L. very small. Smaller than usual in some respect.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 4.5–15 cm long, 2–3 -noded. Culm-internodes terete or elliptical in section, distally glabrous. Culm-nodes glabrous. Lateral branches ample. Leaf-sheaths loose, mostly shorter than adjacent culm internode. Ligule a fringe of hairs, 0.5 mm long. Leaf-blades conduplicate or involute or convolute, 2–3 mm wide. Leaf-blade surface hispid, with simple hairs or tubercle-based hairs. Leaf-blade apex acuminate.

Inflorescence. Inflorescence a panicle. Peduncle pilose above. Panicle open, oblong, 3–6 cm long, 1–4 cm wide. Panicle branches pilose, glabrous in axils or bearded in axils, with prominent pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 3–6 mm long.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 1.5–1.8 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus 0.2–0.3 mm long, bearded, acute.

Glumes. Glumes persistent, similar, reaching apex of florets, thinner than fertile lemma. Lower glume lanceolate, 1.5–1.8 mm long, 1 length of upper glume, membranous, much thinner on margins, without keels, 3 -veined. Lower glume lateral veins ribbed. Lower glume surface hispidulous, with simple hairs or tubercle-based hairs. Lower glume apex acuminate. Upper glume lanceolate, 1.5–1.8 mm long, 1 length of adjacent fertile lemma, membranous, with hyaline margins, without keels, 3 -veined. Upper glume lateral veins ribbed. Upper glume surface hispidulous, with simple hairs or tubercle-based hairs. Upper glume apex acuminate.

Florets. Fertile lemma elliptic, laterally compressed, 1.3–1.8 mm long, membranous, without keel, 3 -veined, 0–3 -veined. Lemma lateral veins obscure. Lemma surface glabrous. Lemma margins involute, ciliate, hairy all along. Lemma apex acute, awned, 1 -awned. Principal lemma awn 3.5–5.5 mm long overall. Palea 6 mm long, 2 -veined. Palea surface scaberulous, glabrous or pilose, hairy on back, hairy below. Palea apex entire or dentate, 2 -fid.

Flower and Fruit. Lodicules 2. Anthers 3, 0.2 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory. Darwin & Gulf.

Eriachne mucronata R. Br. *Prod.* 184. (1810).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Broad Sound: *Brown 6264* (BM holo, CANB, E, K).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (422, Fig 352), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (261), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989), D.Sharp & B.K.Simon, *AusGrass. Grasses of Australia. CD-Rom Version 1.0.* (2002).

Images: D.Sharp & B.K.Simon, *AusGrass. Grasses of Australia. CD-Rom Version 1.0.* (2002);, K.Domin, *Bibliotheca Botanica* 85 (1915) (361, Fig.81 as var. *elongata*).

Derivation (Clifford & Bostock 2007): L. mucro, sharp point; -ata, possessing. With glumes or lemmas contracted into a short hard point or bifid and shortly awned from between the teeth.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Cataphylls evident. Butt sheaths pubescent. Culms geniculately ascending, 30–45 cm long, wiry, 4–6 -noded. Lateral branches sparse or ample. Ligule a fringe of hairs. Leaf-blades conduplicate, 2–5 cm long, 1–2 mm wide. Leaf-blade surface smooth or scaberulous. Leaf-blade apex pungent.

Inflorescence. Inflorescence a panicle. Panicle open, linear, 2–5 cm long, 1 cm wide, bearing few spikelets. Primary panicle branches appressed. Panicle branches capillary, scabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, 5–15 mm long, scabrous.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 5–6 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume ovate, 1 length of upper glume, membranous, without keels, 9–13 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins prominent. Lower glume apex acute, mucronate. Upper glume ovate, 4–5 mm long, membranous, without keels, 9–13 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins prominent. Upper glume apex acute, mucronate.

Florets. Fertile lemma ovate, laterally compressed, 5–6 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma lateral veins prominent. Lemma surface villous, hairy below. Lemma margins involute. Lemma apex acuminate, mucronate. Palea 1 length of lemma, cartilaginous. Palea surface villous.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, South Australia, Queensland, New South Wales.

Kimberley, Ereman, South-West. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre. North, Central, South East, Inland. Western Plains.

Eriachne nervosa Ewart & Cookson. *Ewart & Davies, Fl. N. Terr.* 44 (1917).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Eva Downs: *Hill 923* (MEL holo, K).

Illustrations (Books): D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. nervus*, nerve; -osa, abundance. With conspicuous nerves in the glumes or lemmas.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial, caespitose. Cataphylls evident. Rhizomes elongated, hairy. Culms erect, 60–90 cm long, 3–5 -noded. Culm-internodes smooth. Lateral branches lacking. Ligule a fringe of hairs. Leaf-blades 8–17 cm long, 2–4 mm wide, glaucous.

Inflorescence. Inflorescence a panicle. Panicle contracted, linear or oblong, 7.5–15.5 cm long, 1.5–3.5 cm wide. Primary panicle branches appressed or ascending, 1–5 cm long. Panicle axis smooth. Panicle branches smooth, bearded in axils, with prominent pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–10 mm long.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 11.5–14 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume ovate, 1 length of upper glume, membranous, without keels, 13 -veined. Lower glume apex acute or acuminate. Upper glume ovate, 6–8.5 mm long, membranous, without keels, 13 -veined. Upper glume apex acute or acuminate.

Florets. Fertile lemma lanceolate, laterally compressed, 11.5–14 mm long, chartaceous, without keel, 7 -veined, more than 3-veined. Lemma surface with 2 longitudinal grooves, pilose, hairy below. Lemma margins involute. Lemma apex acuminate or cuspidate, mucous or mucronate or awned, 1 -awned. Principal lemma awn 0–3 mm long overall. Palea embraced by lemma or gaping, 1 length of lemma, chartaceous. Palea keels scabrous. Palea surface pilose, hairy below.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland. Kimberley. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. North, Central.

Eriachne nodosa M. Lazarides. *Austral. Syst. Bot.*, 8(3): 400 (1995).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Darwin & Gulf district: *Lazarides 6844* (CANB holo, BRI, DNA, K, MEL, NSW).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (173, Fig 28), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. nodus*, knot; -osa, abundance.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, 32–62 cm long, 3–6 -noded. Culm-internodes striate, smooth, distally glabrous. Culm-nodes pallid or purple, glabrous. Lateral branches fastigiate. Leaf-sheaths mostly shorter than adjacent culm internode, outer margin hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.5–1 mm long. Leaf-blades flat or involute, 1.4–8 cm long, 2–4 mm wide. Leaf-blade surface scabrous, hispid, hairy abaxially, with tubercle-based hairs. Leaf-blade margins cartilaginous. Leaf-blade apex acute.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 6–10.5 cm long, 6–8 cm wide. Primary panicle branches 2–4 cm long. Panicle branches puberulous to pilose, bearded in axils, with prominent pulvini. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 10–20 mm long, villous, hairy at base, with 7 mm long hairs.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 4–5.3 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus 0.2–0.5 mm long, bearded, obtuse.

Glumes. Glumes persistent, similar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 4–5 mm long, 1 length of upper glume, membranous, much thinner on margins, yellow, without keels, 5 -veined. Lower glume surface glabrous or pilose. Lower glume apex acute. Upper glume ovate, 4–5 mm long, 1 length of adjacent fertile lemma, membranous, with scarious margins, yellow, without keels, 5 -veined. Upper glume surface glabrous or pilose. Upper glume apex acute.

Florets. Fertile lemma elliptic, laterally compressed, 4–5.3 mm long, membranous, without keel, 5 -veined, more than 3-veined. Lemma surface villous, hairy below. Lemma margins involute, ciliate, hairy all along. Lemma hairs white, 1.5–3 mm long. Lemma apex acute, muticous. Palea gaping, 6.5–8 mm long, 2 -veined. Palea surface pilose, hairy below. Palea apex dentate, 2 -fid.

Flower and Fruit. Lodicules 2. Anthers 3, 2–3.5 mm long. Caryopsis with adherent pericarp, obovoid, 2.5 mm long, obtuse.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory. Kimberley. Darwin & Gulf.

Eriachne obtusa R. Br. *Prod.* 184. (1810).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)*.

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Carpentaria, Sweers Is.: *Brown 6260* (BM holo, CANB, E, K).

Illustrations (Books): J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (1169, Fig 331), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): L. blunt. Glumes or lemmas apically rounded.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–60 cm long. Ligule a fringe of hairs. Leaf-blades flat or involute, 5–10 cm long, 1–3 mm wide. Leaf-blade surface smooth or scaberulous, glabrous. Leaf-blade margins cartilaginous. Leaf-blade apex attenuate, hardened.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or oblong, dense, 4–12 cm long, 2–3.5 cm wide. Primary panicle branches appressed or ascending, 1–2.5 cm long. Panicle branches glabrous in axils or bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 0.5–3.5 mm long.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 3–4.75 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes persistent, similar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 3–4.75 mm long, 1 length of upper glume, membranous, without keels, 7 -veined. Lower glume surface glabrous or pubescent. Lower glume apex acute, muticous or mucronate. Upper glume ovate, 3–4.75 mm long, membranous, without keels, 7 -veined. Upper glume surface glabrous or pubescent. Upper glume apex acute, muticous or mucronate.

Florets. Fertile lemma elliptic or ovate, laterally compressed, 3–4.75 mm long, coriaceous, without keel, more than 3-veined. Lemma surface villous, hairy below, with tubercle-based hairs. Lemma margins involute, ciliate. Lemma apex acute, muticous. Palea 1 length of lemma, coriaceous, 2 -veined.

Flower and Fruit. Caryopsis with adherent pericarp, obovoid, 1.75–2 mm long, dark brown.

Distribution (TDWG). Continent. Tropical Asia, Australasia.

Country /Province /State. Papuaia. New Guinea West Papua (Irian Jaya). New Guinea. Australia. Western Australia, Northern Territory, Queensland.

Kimberley, Ereman. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. North, Central, Inland.

Eriachne ovata Nees. *Hook. Lond. Journ. Bot.* ii. 416. (1843).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Toward 4*, Australia: Western Australia: Sout-west Province: Swan River (CGE; IT: B).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (423, Fig 353 & Pl. 16), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (47, Pl 12), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.), *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): L. ovum, egg; -ata, possessing. Inflorescences, spikelets, or leaf-blades ovate in outline.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Rhizomes absent or elongated. Culms 15–30 cm long. Leaves mostly basal. Ligule a fringe of hairs. Leaf-blades filiform, convolute, 1 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle contracted, oblong or ovate, 1.5–5 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 7–8 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus bearded.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume lanceolate or oblong, 1 length of upper glume, membranous, purple, without keels. Lower glume apex acute. Upper glume lanceolate or oblong, 5–6 mm long, membranous, purple, without keels. Upper glume apex acute.

Florets. Fertile lemma lanceolate or ovate, laterally compressed, 7–8 mm long, coriaceous, without keel, 7 -veined, more than 3-veined. Lemma surface pilose or villous, hairy below. Lemma margins involute. Lemma apex acute or acuminate, mucicous. Palea gaping, 1 length of lemma, cartilaginous. Palea surface pilose, hairy at base. Palea apex dentate, 2 -fid.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, South Australia.

Ereman, South-West. NW & Lake Eyre, Southern.

Eriachne pallescens R. Br. *Prod.* 184. (1810).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), S-L Chen et al, *Flora of China* 22 (*Poaceae*) (2006), J.F.Veldkamp, *Poaceae* ms (*Flora Malesiana*), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Endeavour R.: *Banks & Solander* (BM holo).

Recent Synonyms: *Eriachne anomala* Hartley, *Journ. Linn. Soc. Lond., Bot.*, lii. 345 (1942).

Illustrations (Books): H.B.Gilliland, *Grasses of Malaya* (1971) (93, Fig 15), H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005) (73, Fig. 67), E.E.Henty, *A Manual of the Grasses of New Guinea* (1969) (91, Pl. 35), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler, *Grasses of New South Wales*, 4th edn (2008) (261), J.C.Tothill, & J.B.Hacker. *The grasses of southern Queensland* (1983) (236), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), S-L Chen et al, *Flora of China*, *Illustrations, Poaceae* (2007) (Fig. 784).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, H.B.Gilliland et al., *Flora of Malaya Vol. 3 Grasses* (1971);.

Derivation (Clifford & Bostock 2007): L. pallesco, become pale. Losing color at maturity, especially spikelets.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 40–100 cm long, wiry. Ligule a fringe of hairs. Leaf-blades convolute, 5–10 cm long, 1–2 mm wide, stiff.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 8–12 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 3.5–4 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pilose.

Glumes. Glumes persistent, similar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 1 length of upper glume, membranous, without keels, 8 -veined. Lower glume apex acute. Upper glume ovate, membranous, without keels, 9 -veined. Upper glume apex acute.

Florets. Fertile lemma ovate, laterally compressed, 3 mm long, coriaceous, without keel, 7 -veined, more than 3-veined. Lemma surface pubescent. Lemma margins involute. Lemma apex acute, awned, 1 -awned. Principal lemma awn 2 mm long overall. Palea 1 length of lemma, coriaceous, 2 -veined. Palea surface pubescent, hairy on back or on flanks. Palea apex dentate, 2 -fid, with excurrent keel veins.

Flower and Fruit. Anthers 2, 2.4 mm long. Caryopsis with adherent pericarp, obovoid, 1.7 mm long.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia, Australasia, Pacific.

Country /Province /State. **China.** China Southeast. **Indian Subcontinent, Indo-China, Malesia, Papuaasia.** India. Andaman Is, Myanmar, Nicobar Is, Thailand, Vietnam. Borneo, Lesser Sunda Is, Malaya, Singapore, Moluccas, Philippines, Sumatra. New Guinea West Papua (Irian Jaya). New Guinea. **Australia.** Northern Territory, Queensland, New South Wales. **Northwestern Pacific.** Caroline Is.

TDWG4. Fujian, Guangdong, Guangxi, Jiangxi. Darwin & Gulf. North, Central, South East. Coast.

Eriachne pauciflora W. V. Fitzg. *Journ. Roy. Soc. W. Austral.* iii. 115 (1918).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Edkins Range: *Fitzgerald 1461* (PERTH holo, US).

Illustrations (Books): J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (622, Fig 125), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (150, Fig 24), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): *L. paucus*, few; *flos*, flower. With few florets per spikelet or few spikelets per inflorescence.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial. Rhizomes elongated, woolly. Culms erect, 5–10 cm long. Culm-nodes bearded. Leaves mostly basal. Ligule a fringe of hairs. Leaf-blades filiform, 1 mm wide.

Inflorescence. Inflorescence comprising only a few spikelets, comprising 1–3 fertile spikelets. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume lanceolate or ovate, 1 length of upper glume, membranous, without keels, 7–9 -veined. Lower glume primary vein ciliate. Lower glume apex acute. Upper glume lanceolate or ovate, 5 mm long, membranous, without keels, 7–9 -veined. Upper glume primary vein ciliate. Upper glume margins scabrous. Upper glume apex acute.

Florets. Fertile lemma ovate, laterally compressed, 4 mm long, coriaceous, without keel, 7 -veined, more than 3-veined. Lemma surface villous. Lemma margins involute. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 12–15 mm long overall. Palea 1 length of lemma, cartilaginous. Palea surface villous.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. **Australia.** Western Australia, Northern Territory. Kimberley. Darwin & Gulf.

Eriachne pulchella Domin. *Fedde, Repert.* ix. 552 (1911).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Between Ashburton & De Grey R.: *Clement* (K syn); Australia, Western Australia, Whim Creek: Mitchell comm. *Winn* (K syn).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (424, Fig 355), J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (1169, Fig 331 as *E. dominii*), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (262), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): *L. pretty*. Attractive in some respect, usually the inflorescence.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Annual, caespitose. Culms 10–15 cm long, 1–2 -noded. Culm-nodes constricted or flush with internodes. Lateral branches lacking or sparse. Leaves mostly basal. Ligule a fringe of hairs. Leaf-blades 1–2 mm wide. Leaf-blade surface hispid, with tubercle-based hairs.

Inflorescence. Inflorescence a panicle. Panicle spiciform, linear, 3–5 cm long, 0.8–1 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 1–3 mm long.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 3–4 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet or reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 1 length of upper glume, scarious, without keels, 5–7 -veined. Lower glume apex acute, mucronate. Upper glume ovate, 3 mm long, scarious, without keels, 5–7 -veined. Upper glume apex acute, mucronate.

Florets. Fertile lemma lanceolate, laterally compressed, 3–4 mm long, membranous, without keel, 5–7 -veined, more than 3-veined. Lemma lateral veins prominent. Lemma surface villous, hairy below. Lemma margins involute, ciliate, hairy below. Lemma apex acuminate, muticous or mucronate. Palea 1 length of lemma, membranous. Palea keels ciliate. Palea surface villous, hairy all along or below.

Flower and Fruit. Caryopsis with adherent pericarp, obovoid, 1.5 mm long, dark brown.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, South Australia, Queensland, New South Wales.

Kimberley, Eremean. Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre. North, Inland. Western Plains.

Eriachne rara R. Br. *Prod.* 183. (1810).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia, Shoalwater Bay: *Brown 6261* (BM holo, B, BR, CANB, E, K).

Illustrations (Books): S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (262).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): L. far apart. Spikelets far apart in panicle.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 30–75 cm long. Ligule a fringe of hairs, 0.5 mm long. Leaf-blades conduplicate or involute, 4–20 cm long, 1–2 mm wide. Leaf-blade surface scaberulous, rough adaxially, pilose, hairy abaxially, with tubercle-based hairs. Leaf-blade apex attenuate.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic or oblong, 3–7 cm long. Primary panicle branches ascending. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 5–9 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 1 length of upper glume, membranous, without keels. Lower glume apex acuminate. Upper glume ovate, 5–9 mm long, membranous, without keels. Upper glume margins tuberculate, ciliate. Upper glume apex acuminate.

Florets. Fertile lemma ovate, laterally compressed, 4–5.5 mm long, coriaceous, without keel, more than 3-veined. Lemma surface pubescent. Lemma margins involute. Lemma apex acute, awned, 1 -awned. Principal lemma awn curved, 12–27 mm long overall. Palea 1 length of lemma, cartilaginous. Palea apex awned, awns 1.5–4 mm long.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Queensland, New South Wales.

North, Central, South East, Inland. Coast.

Eriachne schultzi F. Muell. *Fragm.* viii. 137 (1873).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *Schultz 183*, Australia: Northern Territory: Darwin and Gulf District: Port Darwin (MEL-95271; IT: BRI, E, K). LT designated by Lazarides, *Astral. Syst. Bot.* 8: 412 (1995).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (150, Fig 24), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. *-ana*, indicating connection. In honor of Frederick Schultz (fl. 1869) who collected in northern Australia.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial. Culms 25–100 cm long. Culm-nodes bearded. Ligule a fringe of hairs. Leaf-blades 7–17 cm long, 2–9 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence a panicle. Panicle contracted, oblong, 3–8 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 7–9 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 1 length of upper glume, membranous, without keels, 7 -veined. Lower glume margins eciliate or ciliate. Lower glume apex acute. Upper glume ovate, 7–9 mm long, membranous, without keels, 7 -veined. Upper glume margins eciliate or ciliate. Upper glume apex acute.

Florets. Fertile lemma ovate, laterally compressed, 6–7 mm long, chartaceous, without keel, more than 3-veined. Lemma surface villous, hairy below. Lemma margins involute. Lemma apex acute, awned, 1 -awned. Principal lemma awn 10–17 mm long overall. Palea 1 length of lemma, chartaceous. Palea surface pilose, hairy below.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory. Darwin & Gulf.

Eriachne scleranthoides F. Muell. *Fragm.* viii. 233. (1873).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *E. Giles s.n.*, Sep 1873, Australia: Northern Territory: Central Australia, Mt. Olga (MEL; IT: B, BRI, K, US-734055).

Illustrations (Books): D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;, K.Domin, *Bibliotheca Botanica* 85 (1915) (360, Fig.80 as *e. mucronata* var. *scleranthoides*).

Derivation (Clifford & Bostock 2007): Gk. *-oides*, resembling. Similar to *Scleranthus*..

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial, caespitose. Cataphylls evident. Butt sheaths woolly. Culms 5–9 cm long, woody. Lateral branches ample. Leaves distichous. Leaf-sheaths mostly shorter than adjacent culm internode. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs. Leaf-blades spreading, flat or conduplicate, 6–12 cm long, 0.5–1 mm wide, stiff. Leaf-blade surface ribbed. Leaf-blade margins cartilaginous. Leaf-blade apex pungent.

Inflorescence. Inflorescence comprising only a few spikelets, comprising 1–2 fertile spikelets. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, filiform, angular, 2–4 mm long, scabrous, pubescent.

Sterile Spikelets. Basal sterile spikelets absent or rudimentary, 0–2 in number.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 3–5 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma, gaping. Lower glume ovate, 3–3.75 mm long, 0.8–0.9 length of upper glume, membranous, without keels, 7–9 -veined. Lower glume apex acute, mucronate. Upper glume ovate, 3.75–4.25 mm long, 1.2 length of adjacent fertile lemma, membranous, without keels, 7 -veined. Upper glume apex acute, mucronate.

Florets. Fertile lemma lanceolate, laterally compressed, 4–5 mm long, chartaceous, without keel, 5–7 -veined, more than 3-veined. Lemma surface setose, hairy below. Lemma margins involute, interlocking with palea keels. Lemma apex acuminate or cuspidate, mucinous. Palea 1 length of lemma, chartaceous, 2 -veined. Palea surface pilose, hairy on back.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory, Queensland.
Central Australia. North, Inland.

Eriachne semiciliata M. Lazarides. *Austral. Syst. Bot.*, 8(3): 415 (1995).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Northern Territory: Darwin and Gulf District: 12.30S 131.70E, *M. Lazarides & L.G. Adams 266* (HT: CANB; IT: B, BRI, DNA, E, NSW, P, US).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): *L. semi-*, half; *cilium*, hair; *-ata*, possessing. Glumes incompletely hairy, when compared with *Eriachne ciliata*, with which it was previously confused.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Annual. Culms geniculately ascending, slender, 20–54 cm long, 4–6 -noded. Culm-internodes terete or elliptical in section, ridged, antrorsely scabrous, distally hispid, with reflexed hairs. Culm-nodes pubescent or bearded. Lateral branches ample. Leaf-sheaths tight, mostly shorter than adjacent culm internode, hispid, with reflexed hairs, outer margin hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.8–1.7 mm long. Leaf-blades flat or involute, 2–4 cm long, 2–3 mm wide. Leaf-blade surface ribbed, scabrous, hispid. Leaf-blade apex obtuse.

Inflorescence. Inflorescence a panicle. Peduncle antrorsely scabrous above. Panicle open, oblong, 2–10.5 cm long, 1–1.4 cm wide. Primary panicle branches 1.5–7 cm long. Panicle branches scabrous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 7–20 mm long.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 2.5–4 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus 0.2–0.3 mm long, bearded, obtuse.

Glumes. Glumes persistent, similar, shorter than spikelet or reaching apex of florets, thinner than fertile lemma. Lower glume elliptic or ovate or orbicular, 2.5–4 mm long, 1 length of upper glume, membranous, much thinner on margins, without keels, 7–9 -veined. Lower glume surface smooth or asperulous, rough between veins. Lower glume apex obtuse, mucronate. Upper glume elliptic or ovate or orbicular, 2.5–4 mm long, 0.9–1 length of adjacent fertile lemma, membranous, with scarious margins, without keels, 7–9 -veined. Upper glume surface smooth or asperulous, rough between veins. Upper glume apex obtuse, mucronate.

Florets. Fertile lemma elliptic or oblanceolate, laterally compressed, 2.5–3.5 mm long, membranous, without keel, 5 -veined, more than 3-veined. Lemma lateral veins ribbed. Lemma surface smooth or scaberulous, rough above, pilose, hairy below. Lemma margins involute, ciliate, hairy below. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 0.6–4.5 mm long overall. Palea 2 -veined. Palea surface pilose. Palea apex entire.

Flower and Fruit. Lodicules 2. Anthers 3, 0.5–1.3 mm long. Caryopsis with adherent pericarp, ellipsoid, 1.6–2 mm long, obtuse. Embryo 0.15–0.33 length of caryopsis.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory.
Kimberley. Darwin & Gulf.

Eriachne squarrosa R. Br. *Prod.* 183. (1810).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), J.F.Veldkamp, *Poaceae* ms (*Flora Malesiana*).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *J. Banks & D. Solander s.n.*, 1770, Australia: Queensland: Cook District: Bustard Bay, Bay of Inlets and Endeavour River (BM).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (150, Fig 24), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. spreading at right angles from a common axis. Inflorescence arms held at right angles to common axis.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial. Culms 60–90 cm long. Ligule a fringe of hairs. Leaf-blades 15–25 cm long, 3–5 mm wide. Leaf-blade margins cartilaginous.

Inflorescence. Inflorescence a panicle. Panicle open, oblong, 4–8 cm long. Panicle branches pubescent. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 8–15 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume lanceolate, 1 length of upper glume, membranous, without keels, 13 -veined. Lower glume surface pilose, with tubercle-based hairs. Lower glume apex attenuate. Upper glume lanceolate, 8–15 mm long, membranous, without keels, 13 -veined. Upper glume surface pilose, with tubercle-based hairs. Upper glume apex attenuate.

Florets. Fertile lemma ovate, laterally compressed, 4–5 mm long, coriaceous, without keel, more than 3-veined. Lemma surface plumose. Lemma margins involute. Lemma apex acute, awned, 1 -awned. Principal lemma awn curved, 25–28 mm long overall. Palea 1 length of lemma, cartilaginous. Palea surface villous. Palea apex awned, awns 4–5 mm long.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Tropical Asia, Australasia.

Country /Province /State. Malesia, Papuaia. Moluccas. New Guinea West Papua (Irian Jaya). New Guinea. **Australia.** Queensland. North, Central.

Eriachne stipacea F. Muell. *Fragm.* v. 206. (1866).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *E. Daemel s.n.*, Australia: Queensland: Cook District: Cape York (MEL-95280; IT: BR, K).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (150, Fig 24), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. -acea, indicating resemblance. Similar to *Stipa*..

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous. Culms erect, 40–100 cm long. Culm-internodes distally hirsute. Culm-nodes bearded. Ligule a fringe of hairs. Leaf-blades 10–20 cm long, 2–4 mm wide. Leaf-blade surface pilose.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, dense or loose, 4–11 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 7–9 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume lanceolate, 1 length of upper glume, membranous, without keels, 5–7 -veined. Lower glume surface pilose, with tubercle-based hairs. Lower glume apex attenuate or setaceously acuminate, muticous or awned, 1 -awned, awn 0–2 mm long. Upper glume lanceolate, 7–9 mm long, membranous, without keels, 5–7 -veined. Upper glume surface pilose, with tubercle-based hairs. Upper glume apex attenuate or setaceously acuminate, muticous or awned, 1 -awned, awn 0–2 mm long.

Florets. Fertile lemma ovate, laterally compressed, 6 mm long, coriaceous, without keel, more than 3-veined. Lemma surface pilose. Lemma margins involute. Lemma apex acute, awned, 1 -awned. Principal lemma

awn curved, 20–30 mm long overall. Palea 1 length of lemma, cartilaginous. Palea surface pilose. Palea apex awned, awns 2.5–3 mm long.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory. Darwin & Gulf. North, Central.

Eriachne sulcata Hartley. *Journ. Linn. Soc. Lond., Bot.*, lii. 342 (1942).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *W.V. Fitzgerald 315*, Apr 1905, Australia: Western Australia: Northern Province: 9 mi from Goody Goody (K; IT: PERTH).

Illustrations (Books): J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (1169, Fig. 331), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (157, Fig. 25), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;

Derivation (Clifford & Bostock 2007): *L. sulcus*, furrow; -ata, possessing.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 50–70 cm long. Culm-nodes bearded. Ligule a fringe of hairs. Leaf-blades involute, 1–3 mm wide. Leaf-blade surface glabrous or hispid, hairy adaxially. Leaf-blade margins scabrous.

Inflorescence. Inflorescence a panicle. Panicle open, oblong or ovate, 4–8 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 6–10 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, exceeding apex of florets, thinner than fertile lemma. Lower glume ovate, 1 length of upper glume, membranous, without keels. Lower glume surface hispid, with tubercle-based hairs. Lower glume apex acuminate. Upper glume ovate, 6–10 mm long, membranous, without keels. Upper glume surface hispid, with tubercle-based hairs. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate, laterally compressed, 5–8 mm long, coriaceous, without keel, 7 -veined, more than 3-veined. Lemma lateral veins prominent. Lemma surface villous, hairy below. Lemma margins involute. Lemma apex acute, awned, 1 -awned. Principal lemma awn 10–15 mm long overall. Palea 1 length of lemma, cartilaginous. Palea surface villous, hairy below. Palea apex dentate, 2 -fid.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia. Kimberley. Darwin & Gulf, Victoria R & Barkly Tableland.

Eriachne tenuiculmis Hartley. *Journ. Linn. Soc. Lond., Bot.*, lii. 346 (1942).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Dampier Archipelago: *Walcot 75* in Herb. Mueller (K holo, MEL).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (143, Fig 23).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L. tenuis*, thin; culmis, stem. Culms thin.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial. Culms slender, 60 cm long. Lateral branches ample. Ligule a fringe of hairs. Leaf-blades 2 mm wide. Leaf-blade surface glabrous. Leaf-blade apex pungent.

Inflorescence. Inflorescence a panicle. Panicle open, linear, 5–10 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets

ovate, laterally compressed, compressed slightly, 8 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume ovate, 1 length of upper glume, membranous, without keels. Lower glume lateral veins prominent. Lower glume apex acute or acuminate. Upper glume ovate, 6 mm long, membranous, without keels. Upper glume lateral veins prominent. Upper glume apex acute or acuminate.

Florets. Fertile lemma lanceolate or ovate, laterally compressed, 8 mm long, coriaceous, without keel, more than 3-veined. Lemma lateral veins prominent. Lemma surface glabrous. Lemma margins involute, ciliate. Lemma apex acuminate, mucous. Palea 1 length of lemma, cartilaginous. Palea surface glabrous.

Flower and Fruit. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland. Kimberley, Ereman.

Eriachne triodioides Domin. *Biblioth. Bot.* 1 v. 356 (1915).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia, Russell R.: *Domin* (PR holotype).

Illustrations (Books): J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (1169, Fig 331), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, K.Domin, *Bibliotheca Botanica* 85 (1915) (357, Fig.79).

Derivation (Clifford & Bostock 2007): Gk. -oides, resembling. Resembling *Trioida*.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial. Culms erect, robust, 40–80 cm long. Culm-nodes glabrous or bearded. Ligule a fringe of hairs. Leaf-blades convolute, 10–20 cm long, 2–4 mm wide.

Inflorescence. Inflorescence a panicle. Panicle open, elliptic, 8–13 cm long. Panicle branches capillary, flexuous. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 9–10 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, similar, reaching apex of florets, thinner than fertile lemma. Lower glume ovate, 1 length of upper glume, membranous, without keels, 11 -veined. Lower glume apex acuminate. Upper glume ovate, 8–8.5 mm long, membranous, without keels, 11 -veined. Upper glume apex acuminate.

Florets. Fertile lemma lanceolate or ovate, laterally compressed, 9 mm long, coriaceous, without keel, more than 3-veined. Lemma surface villous. Lemma margins involute. Lemma apex acuminate, awned, 1 -awned. Principal lemma awn 7 mm long overall. Palea 1 length of lemma, cartilaginous. Palea surface pilose. Palea apex awned, awns 1 mm long.

Flower and Fruit. Anthers 3, 3.5 mm long. Caryopsis with adherent pericarp, obovoid, plano-convex, 3–3.5 mm long, obtuse.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland. Kimberley. Darwin & Gulf. North, Central, Inland.

Eriachne trisetata Nees ex Steud. *Syn. Pl. Gram.* 237 (1854).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*), N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960) (as *Massia*).

TYPE from Sri Lanka. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Sri Lanka: Walker (P holotype, K).

Illustrations (Books): H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005) (73, Fig. 68), E.E.Henty, *A Manual of the Grasses of New Guinea* (1969) (91, Pl. 35), J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (1169, Fig. 331), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (145, Fig. 22), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, H.B.Gilliland et al., *Flora of Malaya Vol. 3 Grasses* (1971); (as *Massia*).

Derivation (Clifford & Bostock 2007): palea two-awned and lemma one-awned.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 50–80 cm long, wiry. Ligule a fringe of hairs. Leaf-blades convolute, 5–20 cm long, 1–2 mm wide, stiff.

Inflorescence. Inflorescence a panicle. Panicle open, ovate, 10–15 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 1–1.25 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus elongated, 1 mm long, pilose.

Glumes. Glumes persistent, similar, reaching apex of florets, thinner than fertile lemma. Lower glume lanceolate, 1 length of upper glume, membranous, without keels, 10 -veined. Lower glume apex acuminate. Upper glume lanceolate, membranous, without keels, 10 -veined. Upper glume apex acuminate.

Florets. Fertile lemma ovate, laterally compressed, 5 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface pubescent. Lemma margins involute. Lemma apex acute, awned, 1 -awned. Principal lemma awn 18 mm long overall. Palea 1 length of lemma, coriaceous, 2 -veined. Palea surface pubescent, hairy on back. Palea apex dentate, 2 -fid, awned, awns 7–15 mm long.

Flower and Fruit. Anthers 2, 0.4 mm long. Caryopsis with adherent pericarp, lanceolate, 3 mm long.

Distribution (TDWG). Continent. Tropical Asia, Australasia.

Country /Province /State. Indian Subcontinent, Indo-China, Malesia, Papuasia. Sri Lanka. Laos, Myanmar, Thailand, Vietnam. Borneo, Sumatra, Malaya, Philippines, Singapore. New Guinea West Papua (Irian Jaya). New Guinea. **Australia.** Western Australia, Northern Territory, Queensland.

Kimberley. Darwin & Gulf, Victoria R & Barkly Tableland. North, Central, South East.

Eriachne vesiculosa M. Lazarides. *Austral. Syst. Bot.*, 8(3): 423 (1995).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia, Darwin & Gulf District: *Craven 4246* (CANB holo).

Illustrations (Books): K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (143, Fig 23), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): *L. vesicula*, vesicle or blister; *-osa*, abundance. Leaf-blades have abundant vesicles.

Classification. Subfamily Micrairoideae. Tribe Eriachneae.

Habit, Vegetative Morphology. Perennial. Stolons absent or present. Butt sheaths pubescent. Culms erect or geniculately ascending, 30–90 cm long, 3–5 -noded. Culm-internodes terete. Culm-nodes bearded. Lateral branches fastigiate. Leaf-sheaths loose, glabrous on surface, outer margin hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.3–0.5 mm long. Leaf-blades convolute, 15–30 cm long, 2–3 mm wide. Leaf-blade surface papillose, pilose or hirsute, hairy on both sides. Leaf-blade margins cartilaginous, scabrous.

Inflorescence. Inflorescence a panicle. Peduncle glabrous or pilose above. Panicle open, oblong, 5–10.5 cm long, 1–3.5 cm wide. Panicle branches angular, scabrous, pilose, bearded in axils. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, 5–9 mm long.

Fertile Spikelets. Spikelets comprising 2 fertile florets, without rhachilla extension. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets ovate, laterally compressed, compressed slightly, 6–9 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus 0.5–0.8 mm long.

Glumes. Glumes persistent, similar, shorter than spikelet, thinner than fertile lemma. Lower glume lanceolate or elliptic, 6–9 mm long, 1 length of upper glume, cartilaginous, much thinner on margins, without keels, 7–9 -veined. Lower glume apex acuminate. Upper glume lanceolate or elliptic, 6–9 mm long, 1.1–1.5 length of adjacent fertile lemma, cartilaginous, with membranous margins, without keels, 7–9 -veined. Upper glume apex acuminate.

Florets. Fertile lemma elliptic, laterally compressed, 4–8 mm long, coriaceous, without keel, 5 -veined, more than 3-veined. Lemma surface with 2 longitudinal grooves, villous, hairy all along. Lemma margins involute. Lemma apex acute, scabrous, awned, 1 -awned. Principal lemma awn curved, 18–30 mm long overall. Palea elliptic, coriaceous, 2 -veined. Palea surface pilose. Palea apex dentate, 2 -fid, awned, awns 2–3 mm long.

Flower and Fruit. Anthers 3, 3 mm long, eventually exerted or retained within floret. Caryopsis with adherent pericarp, obovoid, 2.5–3 mm long, obtuse.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory, Queensland.
Darwin & Gulf. North.

Erianthus lancangensis Y.Y. Qian. *Guihaia* 19(4): 339–340, f. 1. 1999.

TYPE from China. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Yunnan: Lancang, in grassland, 1900 m, 28 Sept. 1993, Y.Y. Qian 3036 (HT: HITBC; IT: IBK, SMAO).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. *-ensis*, denoting origin. From Lancang, Yunnan Province, China.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central.

TDWG4. Yunnan.

Erianthus stenophyllus L. Liou. *Pl. Res. Gram.* 11: 24. 1989.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central.

TDWG4. Sichuan.

Eriochloa acuminata (Presl) Kunth. *Enum. Pl.* i. 72 (1830).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mexico. **Basionym or Replaced Name:** *Piptatherum acuminatum* J. Presl, *Reliq. Haenk.* 1(4–5): 221 (1830)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: IT: *T. Haenke s.n.*, Mexico (K (fragm.)).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (516 as subsp. *acuminata* & *minor*).

Derivation (Clifford & Bostock 2007): L. *acumen*, sharp point; *-ata*, possessing.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, 40–100 cm long. Ligule a fringe of hairs. Leaf-blades 7–15 cm long, 4–8 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, unilateral, 1–2.5 cm long. Central inflorescence axis 5–12 cm long, puberulous. Rhachis angular, pubescent on surface. Spikelet packing regular, 2 -rowed. Spikelets solitary or in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, scabrous, bearing a few hairs, with 1–1.5 mm long hairs.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 3.5–4.5 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface scabrous, rough above, pubescent, hairy below. Upper glume apex acuminate, awned, 1 -awned, awn 0.5–1 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, 5 -veined, scabrous, rough above, pubescent, hairy below, acuminate. Fertile lemma elliptic, 2.5–2.7 mm long, indurate, without keel. Lemma margins involute. Lemma apex obtuse, mucronate. Palea involute, indurate.

Flower and Fruit. $2n = 36$.

Distribution (TDWG). Continent. North America.

Country /Province /State. North-central USA, Southwestern USA, South-central USA, Southeastern USA, Mexico. Kansas, Oklahoma. Arizona, California. New Mexico, Texas. Alabama, Georgia, Louisiana, Mississippi, North Carolina, Tennessee. Central Mexico, Northeast Mexico, Northwest Mexico, Southwest Mexico.

TDWG4. Catamarca. Cordoba. Morelos, Puebla. Aguascalientes, Coahuila, Chihuahua, Durango, Guanajuato, Neuvo Leon, Queretaro, San Luis Potosi, Zacatecas. Baja California Sur, Sinaloa, Sonora. Colima, Guerrero, Jalisco, Michoacan, Nayarit, Oaxaca.

Eriochloa aristata Vasey. *Bull. Torrey Bot. Club*, xiii. 229. (1886).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mexico. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *Palmer 110e*, Aug 1885, Mexico: S.W. Chihuahua (US-2873943; ILT: K , US-928384 (does not say "S.W. Chihuahua")). LT designated by A.S. Hitchcock, *Contr. U.S. Natl. Herb.* 17(3): 224 (1913). LT designated by Shaw & Webster, *Sida* 12: 174 (1987) on the K specimen is incorrect. [rjs 2004]. Only one sheet at US matches Hitchcock's notes referencing the type specimen label.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (514).

Derivation (Clifford & Bostock 2007): L. arista, bristle; -ata, possessing.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, 50–80 cm long. Ligule a fringe of hairs. Leaf-blades 10–25 cm long, 5–12 mm wide. Leaf-blade surface smooth to scabrous, glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, unilateral, 2–4 cm long. Central inflorescence axis 7–15 cm long, with scattered hairs or glabrous. Rhachis angular, with scattered hairs or glabrous on surface. Spikelet packing regular, 2 -rowed. Spikelets solitary or in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, scabrous, bearing a few hairs or glabrous.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, (5–)5.5–7 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface scabrous, rough above, pilose, hairy above. Upper glume apex acuminate, awned, 1 -awned, awn 1–3 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, 5 -veined, scabrous, rough above, pilose, hairy below, acuminate. Fertile lemma elliptic, 2.5–3.5 mm long, indurate, without keel. Lemma margins involute. Lemma apex obtuse, mucronate. Palea involute, indurate.

Flower and Fruit. $2n = 36$.

Distribution (TDWG), Continent. North America, South America.

Country /Province /State. **Southwestern USA, Southeastern USA, Mexico.** Arizona, California. Mississippi. Central Mexico, Northeast Mexico, Gulf (Mexico), Northwest Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica, Caribbean, Northern South America, Western South America.** El Salvador, Guatemala, Nicaragua. Venezuela. Colombia.

TDWG4. Morelos, Puebla. Chihuahua, Durango. Veracruz. Baja California, Sinaloa, Sonora. Colima, Guerrero, Jalisco, Nayarit, Oaxaca. Chiapas, Yucatan.

Eriochloa australiensis Stapf & Thellung. *Vierteljahrsschr. Nat. Ges. Zurich*, lxiv. 697 (1919).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: New South Wales (holo: ?Z; iso: ?NSW).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (452, Fig 383), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (263).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From Australia.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, 20–40 cm long, 1–1.5 mm diam., 2–3 -noded. Culm-nodes glabrous or pubescent. Leaf-sheaths inflated, longer than adjacent culm internode. Ligule a fringe of hairs, 1 mm long. Leaf-blades linear or lanceolate, 2–10 cm long, 4–7 mm wide. Leaf-blade surface puberulous, hairy adaxially. Leaf-blade apex acute or acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 4–7, borne along a central axis, appressed, unilateral, 2–3 cm long. Central inflorescence axis 6–10 cm long. Rhachis narrowly winged, angular, scaberulous on margins. Spikelets solitary or in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, 1–3 mm long, scabrous, bearing a few hairs, hairy at tip, with 1–4 mm long hairs.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret

male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, acuminate, 5–7 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface pilose, hairy below. Upper glume apex acute, awned, 1 -awned, awn 1–5 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 0.9 length of spikelet, 5 -veined, pilose, hairy below, acuminate. Fertile lemma elliptic, 3 mm long, indurate, without keel. Lemma margins involute. Lemma apex acute, pubescent, mucronate. Principal lemma awn 1.5 mm long overall. Palea involute, indurate.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, South Australia, Queensland, New South Wales.

Kimberley, Ereman. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre, Southern. Central, Inland. Western Plains.

Eriochloa boliviensis S.A. Renvoize. *Kew Bull.*, 50(2): 343 (1995).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Bolivia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: S. A. Renvoize 4606, 26 Feb 1987, Bolivia: El Beni, Yacuma, 50 km from San Borja on road, to San Ignacio, Research Station, Porvenir (LPB; IT: K, NY-22855).

Illustrations (Books): S.A.Renvoize, *Gramineas de Bolivia* (1998) (441, Fig 96).

Illustrations (Journals): *Kew Bulletin* (50: 344, Fig.1 (1995)).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From *Bolivia*..

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual. Culms 80–140 cm long. Culm-internodes terete. Ligule a fringe of hairs. Leaf-blades 10–55 cm long, 4–10 mm wide. Leaf-blade surface glabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 3–6, borne along a central axis, unilateral, 1.5–3 cm long. Rhachis angular, pilose on surface, ciliate on margins. Spikelet packing crowded. Spikelets pectinate, solitary. Fertile spikelets pedicelled. Pedicels present, oblong, villous, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 4–5 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, herbaceous, without keels. Upper glume apex acuminate, awned, 1 -awned, awn 1–1.5 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, membranous, acuminate. Fertile lemma elliptic, 3.5–4.5 mm long, indurate, without keel. Lemma surface granulate. Lemma margins involute. Lemma apex obtuse, pubescent, muticous. Palea involute, indurate.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Brazil. Bolivia. Brazil West Central.

Eriochloa boxiana Hitchcock. *Publ. Carnegie Inst. Wash. No.* 436, 339 (1934).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Caribbean. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *H.E. Box* 43, 7 Sep 1931, Antigua and Barbuda: Parry's Bridge (US-1535749: IT: K).

Illustrations (Books): A.S.Hitchcock, *Manual of the Grasses of the West Indies* (1936) (184, Fig. 116).

Derivation (Clifford & Bostock 2007): L. -ana, indicating connection. In honor of Harold Edmund Box (1898-) entomologist in Venezuela.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual. Culms decumbent, 30–40 cm long, rooting from lower nodes. Culm-nodes pubescent. Lateral branches ample. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs, 0.5–1 mm long. Leaf-blades 5–12 cm long, 2–3 mm wide. Leaf-blade surface puberulous, hairy adaxially. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes numerous, borne along a central axis, erect or ascending, unilateral, 1.5–2 cm long. Central inflorescence axis 7–11 cm long, pubescent. Rhachis angular.

Spikelet packing regular, 2 -rowed. Spikelets in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, 0.5 mm long, bearing a few hairs.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, acuminate, 4.5–5 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface pubescent, hairy below. Upper glume apex acuminate, awned, 1 -awned, awn 1 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, 5 -veined, pubescent, hairy below, acuminate. Fertile lemma elliptic, 4–4.5 mm long, indurate, without keel. Lemma margins involute. Lemma apex obtuse, mucronate or awned, 1 -awned. Principal lemma awn 0.5 mm long overall. Palea involute, indurate.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. Mexico. Central Mexico, Gulf (Mexico), Northwest Mexico, Southwest Mexico, Southeast Mexico. Mesoamerica, Caribbean, Northern South America. Leeward Is.

Eriochloa contracta Hitchcock. *Proc. Biol. Soc. Wash.* xli. 163 (1928).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Drummond 370*, USA: Texas (K, fragm. US-s.n.).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (512), F.W.Gould, *The Grasses of Texas* (1975) (432, Fig. 231).

Derivation (Clifford & Bostock 2007): L. contracted. Inflorescence a narrow panicle.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 30–70 cm long. Culm-nodes pubescent. Leaf-sheaths pubescent. Ligule a fringe of hairs. Leaf-blades 2–7 mm wide. Leaf-blade surface pubescent.

Inflorescence. Inflorescence composed of racemes. Racemes 6–15, borne along a central axis, appressed, unilateral, 1–2 cm long. Central inflorescence axis 6–15 cm long, villous. Rhachis angular, pilose on surface. Spikelet packing regular, 2 -rowed. Spikelets in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, glabrous.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 3.5–4 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface pubescent. Upper glume apex attenuate.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, 5 -veined, pubescent, attenuate. Fertile lemma elliptic, 2–2.5 mm long, indurate, without keel. Lemma margins involute. Lemma apex obtuse, awned, 1 -awned. Principal lemma awn 0.5–0.8 mm long overall. Palea involute, indurate.

Flower and Fruit. $2n = 36$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe (*), North America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Northwest USA, North-central USA, Southwestern USA, South-central USA, Southeastern USA, Mexico.** Colorado. Kansas, Minnesota, Missouri, Nebraska, Oklahoma. Arizona, California, Nevada. New Mexico, Texas. Arkansas, Louisiana. Northeast Mexico, Northwest Mexico, Southwest Mexico.

Coahuila, Chihuahua, Durango, Neuvo Leon, Tamaulipas. Sinaloa, Sonora. Colima, Jalisco, Nayarit.

Eriochloa crebra S. T. Blake. *Proc. Roy. Soc. Queensl.* lix. 156 (1948).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Ilfracombe: *Blake 11358* (BRI).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (453, Fig 384), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (263).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. creber, pressed together. Racemes held erect adpressed to inflorescence axis.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 60–100 cm long, 2–5 -noded. Culm-nodes glabrous. Lateral branches lacking or sparse. Leaf-sheaths tight or loose, mostly shorter than adjacent culm internode. Ligule a fringe of hairs, 1 mm long. Leaf-blades 8–25 cm long, 2–6 mm wide. Leaf-blade surface puberulous, hairy adaxially. Leaf-blade apex attenuate.

Inflorescence. Inflorescence composed of racemes. Racemes 5–25, borne along a central axis, unilateral, 1.5–5 cm long. Central inflorescence axis 10–25 cm long. Rhachis angular. Spikelet packing crowded. Spikelets solitary or in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, 1–2 mm long, bearing a few hairs, hairy at tip, with 2.5 mm long hairs.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate or ovate, dorsally compressed, acute or acuminate, 3.7–4.2 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume ovate, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface pilose, hairy below. Upper glume apex acute, muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 0.9 length of spikelet, 5 -veined, pilose, hairy below, acute. Fertile lemma elliptic or oblong, 3 mm long, indurate, without keel. Lemma margins involute. Lemma apex acute, mucronate. Principal lemma awn 1 mm long overall. Palea involute, indurate.

Distribution (TDWG). Continent. Europe (*), Australasia.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Australia.** Northern Territory, South Australia, Queensland, New South Wales.

Darwin & Gulf. NW & Lake Eyre. North, Central, South East, Inland. Coast, Western Slopes, Western Plains.

Eriochloa distachya H. B. & K. *Nov. Gen. et Sp.* i. 95. (1815).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Venezuela. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Humboldt & Bonpland s.n.*, May, Venezuela: Amazonas: in ripa Orinoci fluminis inter Santa Barbara et Esmeralda (P; IT: US-928455 (fragm. ex B, LE-TRIN, P)).

Illustrations (Books): S.A.Renvoize, *Gramineas de Bolivia* (1998) (Fig. 95), J.A.Steyermark et al, *Flora of the Venezuelan Guayana* Vol. 8 (2004) (105, Fig. 70), W.Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (229, Fig. 79), F.O.Zuloaga et al, *Flora del Paraguay* 23 (1994).

Illustrations (Journals): *Ruizia* (13:342, Fig 42n-o (1993)).

Derivation (Clifford & Bostock 2007): Gk. dis, twice; stachys, an ear of corn. Inflorescences with two branches or with regularly bifurcating branches.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, 25–60 cm long, 1 mm diam. Culm-nodes bearded. Lateral branches ample. Leaf-sheaths glabrous on surface or hirsute. Ligule a fringe of hairs, 0.4–0.5 mm long. Leaf-blades 2–13 cm long, 2–6 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence composed of racemes. Peduncle 5–12 cm long, hirsute above. Racemes 1–3, single or paired or borne along a central axis, arcuate, unilateral, 1–2 cm long. Central inflorescence axis 0–4 cm long. Rhachis angular, villous on surface. Spikelet packing adaxial, 2 -rowed. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong, unequal, 1 mm long, villous, hairy all along but hairs longer above.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic or ovate, dorsally compressed, 2.5–3.5 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, 0.3 mm long, glabrous.

Glumes. Glumes one the lower absent or obscure, reaching apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface villous. Upper glume apex acute, muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, 3 -veined, villous, acute, muticous. Fertile lemma elliptic, 1.9–2.3 mm long, indurate, without keel, 3 -veined, 0–3 -veined. Lemma surface rugulose. Lemma margins involute. Lemma apex obtuse. Palea involute, indurate.

Flower and Fruit. Anthers 3, 1.2–1.5 mm long. Caryopsis with adherent pericarp, ellipsoid or oblong, 1.5 mm long.

$2n = 18$ (2 refs TROPICOS).

Distribution (TDWG). Continent. South America.

Country /Province /State. Mesoamerica, Northern South America, Western South America, Brazil, Southern South America. Costa Rica, Guatemala, Panama. Venezuela. Bolivia, Colombia, Ecuador, Peru. Brazil West Central, Brazil Northeast, Brazil North, Brazil Southeast, Brazil South. Paraguay.

TDWG4. Mato Grosso, Goias, Minas Gerais, Rio de Janeiro, Espirito Santo, Sao Paulo Parana.

Eriochloa eggersii Hitchcock. *Contrib. U. S. Nat. Herb.* xxiv. 430 (1927).

Regarded by K as a synonym (*E. pacifica*).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ecuador. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *H.F.A. von Eggers 15423*, no date, Ecuador: Manabi: El Recreo (US-822110; IT: MO-405818 (fragm.)).

Illustrations (Journals): *Ruizia* (13:345, Fig 43n-o (1993)).

Derivation (Clifford & Bostock 2007): in honor of Heinrich Franz Alexander Eggers (1844–1908) German-born Danish military officer and plant collector in the West Indies and South America.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual. Culms 15–40 cm long. Ligule a fringe of hairs. Leaf-blades 5–20 cm long, 4–12 mm wide. Leaf-blade surface pubescent, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 10–20, borne along a central axis, closely spaced, unilateral, 1.5–2 cm long. Central inflorescence axis 4–8 cm long, pubescent. Rhachis angular, pilose on surface. Spikelets in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, 0.5–1 mm long, villous, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate or oblong, dorsally compressed, acute or acuminate, 4.5–5 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, coriaceous, without keels. Upper glume surface pubescent. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, coriaceous, pubescent, acute. Fertile lemma elliptic, 2 mm long, indurate, without keel. Lemma surface granulose. Lemma margins involute. Lemma apex obtuse, mucronate. Principal lemma awn 0.5 mm long overall. Palea involute, indurate.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America. Ecuador, Peru.

Eriochloa ekmanii Hitchcock. *U. S. Dept. Agric., Misc. Publ. No.* 243 : 183 (1936).

Regarded by K as a synonym (*E. setosa*).

TYPE from Cuba. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *E.L. Ekman 7509*, 22 Aug 1916, Cuba: Oriente, savannas near Mir (US-1385555; IT: MICH, NY).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Erik Leonard Eckman (1888–1931) Swedish botanist.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms decumbent, 15–60 cm long. Culm-nodes pubescent. Lateral branches sparse. Leaf-sheaths puberulous, outer margin hairy. Leaf-sheath oral hairs ciliate. Ligule a fringe of hairs, 0.5–1 mm long. Leaf-blades flat or involute, 3–15 cm long, 1–3 mm wide. Leaf-blade surface puberulous.

Inflorescence. Inflorescence composed of racemes. Racemes 2–6, borne along a central axis, unilateral, 1–3 cm long. Central inflorescence axis 3–8 cm long. Rhachis angular, scabrous on surface, glabrous on surface. Spikelet packing lax. Spikelets solitary or in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, 0.3–0.5 mm long, bearing a few hairs, hairy at tip, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 2.5–3 mm long, 0.8–1 mm wide, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels. Upper glume surface pubescent. Upper glume apex acuminate or attenuate.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, membranous, pubescent, acuminate or attenuate. Fertile lemma elliptic, 1.8–2 mm long, indurate, without keel. Lemma margins involute. Lemma apex obtuse, mucous or mucronate. Principal lemma awn 0–0.2 mm long overall. Palea involute, indurate.

Distribution (TDWG). Continent. South America.

Country /Province /State. Caribbean. Cuba.

Eriochloa fatmensis (Hochst. & Steud.) Clayton. *Kew Bull.*, 30(1): 108 (1975).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)* (as *E. decumbens*), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *E. nubica*).

TYPE from Saudi Arabia. **Basionym or Replaced Name:** *Panicum fatmense* Hochst. & Steud. in sched., *Schimper It. Un.* :806 (1837). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Schimper 806*, Saudi Arabia: Mecca (P; IT: K, L, MO, LE-TRIN-0545.04). herb. un. arab. nr. 806.

Recent Synonyms: *Eriochloa nubica* (Steud.) Hackel & Stapf ex Thellung, *Vierteljahrsschr. Nat. Ges. Zurich*, 64: 697 (1919).

Illustrations (Books): H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962) (246, Fig. 174 as *E. acrotricha*), W. Robyns (1929 and 1934). *Flora Agrostologique du Congo Belge et du Ruanda-Urundi*, I. Maydees et Andropogonees and II. Panicees. Bruxelles, Goemaere (79, Pl. 25, as *E. nubica*), R.M.Pohill, F.T.E.A., *Gramineae* (3(1982):572, Fig.136), G.V.Pope et al., *Flora Zambesiaca* 10, J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (345, Fig 129 as *E. nubica*), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (219, Fig 90), T.A.Cope, in M.Thulin, *Poaceae* (Gramineae). *Flora of Somalia* (1995) (231, Fig 132), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (512).

Images: D.Sharp & B.K.Simon, *AusGrass*. *Grasses of Australia*. CD-Rom Version 1.0. (2002); (as *Eriochloa decumbens*), F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From Wadi Fatmima in Arabia.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, 10–120 cm long. Ligule a fringe of hairs. Leaf-blades 3–30 cm long, 2–10 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 3–10, borne along a central axis, unilateral, 1–5 cm long. Central inflorescence axis 3–20 cm long. Rhachis wingless or narrowly winged, angular, puberulous on surface. Spikelet packing adaxial, regular, 2 -rowed. Spikelets ascending, solitary. Fertile spikelets pedicelled. Pedicels present, oblong, setose.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, acuminate, (2.5–)3–5 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, (2.5–)3–5 mm long, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface pubescent. Upper glume apex attenuate, awned, 1 -awned, awn 0.5–4 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 0.9 length of spikelet, 5 -veined, pubescent, attenuate, awned. Awn of lower sterile floret 0.2–3 mm long. Fertile lemma elliptic, 2–3 mm long, indurate, without keel, 5 -veined, more than 3-veined. Lemma surface punctate. Lemma margins involute. Lemma apex obtuse, mucronate. Principal lemma awn 0.3–1 mm long overall. Palea involute, indurate.

Flower and Fruit. *N* = 18 (1 ref TROPICOS).

Distribution (TDWG). Continent. Europe (*), Africa, Temperate Asia, Tropical Asia, Australasia, North America, South America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Macaronesia, West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean.** Cape Verde. Ghana, Mali, Mauritania, Nigeria, Senegal. Rwanda, DRC. Eritrea, Ethiopia (inc. Eritrea), Somalia, Sudan. Kenya, Tanzania, Uganda. Angola, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Free State, Northern Cape. Madagascar. **Arabian Peninsula.** Oman. **Indian Subcontinent, Indo-China, Malesia, Papuasiasia.** India. Myanmar. Lesser Sunda Is. New Guinea West Papua (Irian Jaya). New Guinea. **Australia. Southwestern USA, Southeastern USA.** Arizona. Mississippi. **Western South America.** Colombia.

TDWG4. Rajasthan. Kimberley, Eremean. Darwin & Gulf, Victoria R & Barkly Tableland. North, Central, South East.

Eriochloa grandiflora (Trin.) Benth. *Journ. Linn. Soc.* xix. 39. (1881).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. **Basionym or Replaced Name:** *Helopus grandiflorus* Trin., *Sp. Gram.* 3(24): , t. 278 (1829–1830)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Brazil, Rigura: Coll? (LE holo).

Illustrations (Books): S.A.Renvoize, *Gramineas de Bolivia* (1998) (Fig. 95), F.O.Zuloaga et al, *Flora del Paraguay* 23 (1994), R.Pilger, *Die Natürlichen Pflanzenfamilien* 14e (1940) (55, Fig. 30).

Derivation (Clifford & Bostock 2007): *L. grandis*, large; flos, flower.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 60–150 cm long. Culm-internodes distally pubescent. Ligule a fringe of hairs. Leaf-blades 10–30 cm long, 8–15 mm wide. Leaf-blade apex attenuate.

Inflorescence. Inflorescence composed of racemes. Peduncle pubescent above. Racemes 4–10, borne along a central axis, unilateral, 2–6 cm long. Central inflorescence axis 8–25 cm long. Rhachis angular, pubescent on surface, ciliate on margins. Spikelet packing crowded. Spikelets pectinate, solitary. Fertile spikelets pedicelled. Pedicels present, oblong, 0.5–1 mm long, villous, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate, dorsally compressed, 7–8 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels. Upper glume surface pubescent, hairy above. Upper glume apex acuminate.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, membranous, pubescent, hairy above, acuminate. Fertile lemma elliptic or oblong, 4–4.5 mm long, indurate, without keel. Lemma margins involute. Lemma apex obtuse, pubescent, muticous. Palea involute, indurate.

Distribution (TDWG). Continent. South America.

Country /Province /State. **Western South America, Brazil, Southern South America.** Bolivia. Paraguay.

TDWG4. Misiones.

Eriochloa lemmonii Vasey & Scribner. *Coult. Bot. Gaz.* ix. 185. (1883).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: LT: *J.G. Lemmon 2910*, Jun 1882, USA: Arizona: Cochise Co.: Huachuca (US-1963636). LT designated by Shaw, *Sida* 12: 184 (1987).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (514).

Derivation (Clifford & Bostock 2007): in honor of John Gill Lemmon (1832–1908) United States forester and botanist.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual, caespitose. Culms decumbent, weak, 20–60(–100) cm long. Ligule a fringe of hairs. Leaf-blades 5–15 cm long, 3–10 mm wide. Leaf-blade surface glabrous or pubescent, hairy on both sides.

Inflorescence. Inflorescence composed of racemes. Racemes 3–8, borne along a central axis, erect or ascending, unilateral, 2–5 cm long. Central inflorescence axis 6–18 cm long, villous. Rhachis angular, villous on surface. Rhachis hairs 4 mm long. Spikelet packing regular, 2 -rowed. Spikelets in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, villous, with 1.5–3 mm long hairs.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 3–6 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface pubescent. Upper glume apex acuminate or attenuate.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, 5 -veined, pubescent, acuminate or attenuate. Fertile lemma elliptic, 3 mm long, indurate, without keel. Lemma surface reticulate. Lemma margins involute. Lemma apex obtuse, mucronate. Principal lemma awn 0.3–0.5 mm long overall. Palea involute, indurate.

Distribution (TDWG). Continent. Europe (*), North America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Southwestern USA, South-central USA, Mexico.** Arizona. New Mexico. Central Mexico, Northeast Mexico, Northwest Mexico, Southwest Mexico.

Mexico State, Morelos. Coahuila, Chihuahua, Durango. Sinaloa, Sonora. Colima, Jalisco, Nayarit.

Eriochloa longiflora S. T. Blake. *Univ. Queensl. Papers, Dept. Biol.*, i. No. 18, 18 (1941).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Birdsville: *Blake 12243* (BRI; holo; K iso).

Illustrations (Books): No illustration found (BKS).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): L. longus, long; flos, flower. Having long spikelets.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, 15–30 cm long, without nodal roots or rooting from lower nodes. Lateral branches fastigiate. Leaf-sheaths inflated, longer than adjacent culm internode, striately veined, smooth, glabrous on surface. Ligule a fringe of hairs, 1 mm long. Collar glabrous or pubescent. Leaf-blades lanceolate, 2–7 cm long, 5–7 mm wide. Leaf-blade venation prominent, with 7–9 secondary veins. Leaf-blade surface puberulous, hairy adaxially. Leaf-blade margins smooth. Leaf-blade apex acute or acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 4–7, borne along a central axis, appressed, flexuous, unilateral, 2–3 cm long. Central inflorescence axis 6–10 cm long. Rhachis angular, scaberulous on margins. Raceme-bases filiform, 2–8 mm long. Spikelets solitary or in pairs. Fertile spikelets pedicelled. Pedicels present, clavate, angular, 1–3 mm long, bearing a few hairs, hairy at tip, with 1–2 mm long hairs.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, acuminate, 9.3–11 mm long, 1.6–1.85 mm wide, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes two, exceeding apex of florets, thinner than fertile lemma. Lower glume oblate, 0.3–0.5 mm long, 0.05 length of upper glume. Lower glume apex truncate. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface villous, hairy below. Upper glume apex attenuate, awned, 1 -awned, awn 1–5 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 8–9 mm long, 0.8–0.9 length of spikelet, 5 -veined, villous, hairy below, ciliolate on margins, attenuate. Fertile lemma lanceolate or elliptic, 2.9–3 mm long, 1.2–1.4 mm wide, indurate, shiny, without keel. Lemma margins involute. Lemma apex acute, pubescent, mucronate, 1 -awned. Principal lemma awn 1–1.6 mm long overall. Palea involute, indurate.

Flower and Fruit. Anthers 3, 1.15–1.3 mm long. Caryopsis with adherent pericarp, oblong, 2 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Northern Territory, South Australia, Queensland, New South Wales. NW & Lake Eyre, Southern. Inland. Western Slopes.

Eriochloa macclounii Stapf. *Prain, Fl. Trop. Afr.* ix. 501 (1919).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mozambique. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Mozambique Distr., *McClounie* 8.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of MacClounie who collected in Malawi.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual. Culms erect, 60–180 cm long. Ligule a fringe of hairs. Leaf-blades 8–60 cm long, 3–12 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes numerous, borne along a central axis, unilateral, 3–6 cm long. Central inflorescence axis 6–25 cm long. Rhachis angular, pubescent on surface or pilose on surface. Spikelet packing irregular. Spikelets in pairs. Fertile spikelets pedicelled. Pedicels present, oblong.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, acuminate, 3.5–5 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface pubescent or pilose. Upper glume apex acuminate, awned, 1 -awned, awn 1–3 mm long.

Florets. Basal sterile florets 1, male or barren, with palea. Lemma of lower sterile floret similar to upper glume, elliptic, 0.9 length of spikelet, 5 -veined, pubescent or pilose, acuminate, mucronate. Fertile lemma elliptic, 2–2.5 mm long, indurate, without keel. Lemma surface granulose. Lemma margins involute. Lemma apex obtuse, mucronate. Principal lemma awn 1–2 mm long overall. Palea involute, indurate.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa, South tropical Africa, Southern Africa. Tanzania. Mozambique, Zambia, Zimbabwe. Botswana.

Eriochloa meyeriana (Nees) Pilger. *Engl. & Prantl, Nat. Pflanzenfam., Aufl. 2*, xiv e. 56 (1940).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)*.

TYPE from South Africa. **Basionym or Replaced Name:** *Panicum meyerianum* Nees, *Fl. Afr. Austr.* 1: 32 (1841). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: South Africa, Omsamculo: *Drege* (K iso).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (330, Fig 288), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (164, Fig 93 as subsp. *meyeriana*), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (345, Fig 129 & as *E. nubica*), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (219, Fig 90), H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005) (75, Fig. 70).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. -ana, indicating connection. In honor of Ernst Heinrich Friedrich Meyer (1791–1858) German botanist who collected in South Africa.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Perennial. Culms decumbent or rambling, 30–200 cm long, rooting from lower nodes. Ligule a fringe of hairs. Leaf-blades 5–25 cm long, 3–15 mm wide.

Inflorescence. Inflorescence a panicle or composed of racemes. Panicle open, elliptic, 8–18 cm long, contracted about secondary branches. Primary panicle branches bearing spikelets almost to the base. Panicle branches secund. Racemes 10–30, borne along a central axis, unilateral, 2–7 cm long, secondarily branched, secondary branches racemulose. Central inflorescence axis 8–18 cm long. Rhachis angular, puberulous on surface. Spikelet packing adaxial, irregular. Spikelets solitary or in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, 1–2 mm long.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, acute, 2.3–3.5 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes dissimilar, exceeding apex of florets, thinner than fertile lemma. Lower glume oblate or ovate (rarely), 0.5(–2) mm long, 0.15–0.2(–0.5) length of spikelet, hyaline, without keels, 0 -veined. Lower glume lateral veins absent. Lower glume apex truncate or cuspidate. Upper glume ovate, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface glabrous or pubescent. Upper glume apex acute.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 0.9 length of spikelet, 5 -veined, glabrous or pubescent, acute. Fertile lemma elliptic, 1.5–2.2 mm long, indurate, without keel. Lemma surface granulose. Lemma margins involute. Lemma apex obtuse, mucronate. Palea involute, indurate.

Distribution (TDWG). Continent. Africa, Temperate Asia, Tropical Asia, Australasia (*).

Country /Province /State. West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean. Ghana. Rwanda, DRC. Ethiopia (inc. Eritrea), Somalia, Sudan. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, Mpumalanga, Swaziland, KwaZulu-Natal. Aldabra, Madagascar, Seychelles. **Arabian Peninsula.** Yemen. **Indian Subcontinent, Indo-China, Malesia.** Java, Cocos (Keeling) Is, Singapore. **Australia.** Queensland (*).

North, Central, South East.

Eriochloa michauxii (Poir.) Hitchcock. *Contrib. U. S. Nat. Herb.* xii. 147 (1908).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Panicum michauxii* Poir., *Encycl. Suppl.* 4:278 (1816). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: USA, Florida: Michaux (P holo).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (512 as subsp. *michauxii* & *simpsonii*).

Derivation (Clifford & Bostock 2007): in honor of Andre Michaux (1746–1802) French botanist and traveller.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Perennial. Culms erect, 60–120 cm long. Ligule a fringe of hairs. Leaf-blades flat or involute, 2–14 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 10–15, borne along a central axis, ascending or spreading, unilateral, 3–5(–15) cm long. Central inflorescence axis 15–30 cm long, pubescent. Rhachis angular, pubescent on surface. Spikelet packing adaxial. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong, pubescent.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate, dorsally compressed, acuminate, 4–5 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, reaching apex of florets, thinner than fertile lemma. Upper glume ovate, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface villous. Upper glume apex acuminate.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, 5 -veined, villous, acuminate, muticous. Fertile lemma elliptic, 3–4 mm long, indurate, without keel. Lemma margins involute. Lemma apex apiculate, pubescent, muticous or mucronate. Principal lemma awn 0–0.3 mm long overall. Palea involute, indurate.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. North America.

Country /Province /State. Southeastern USA. Florida, Georgia, South Carolina.

Eriochloa montevidensis Griseb. *Symb. Fl. Arg.* :306 (1879).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Uruguay. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Uruguay: Montevideo,.

Illustrations (Books): A.Burkat, *Flora Ilustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (329, Fig. 135), A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (490, Fig. 126), F.O.Zuloaga et al, *Flora del Paraguay* 23 (1994), B.Rosengurtt, *Gramineas Uruguayas I* (1970) (318, Fig. 135).

Derivation (Clifford & Bostock 2007): *L. -ensis*, denoting origin. From Montevideo, Uruguay.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Perennial, short-lived, caespitose. Culms erect, 30–100 cm long. Ligule a fringe of hairs. Leaf-blades 5–15 cm long, 2–7 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 5–10, borne along a central axis, unilateral, 1–2.5 cm long. Central inflorescence axis 8–20 cm long, glabrous. Rhachis angular, glabrous on surface. Spikelets in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, 0.5–1 mm long, glabrous, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 3.5–4 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels. Upper glume surface puberulous. Upper glume apex acuminate.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, membranous, puberulous, acuminate. Fertile lemma oblong, 2 mm long, indurate, without keel. Lemma surface granulose. Lemma margins involute. Lemma apex obtuse, awned, 1 -awned. Principal lemma awn 1 mm long overall. Palea involute, indurate.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Brazil, Southern South America. Ecuador. Brazil South. Argentina Northeast, Argentina Northwest, Chile North, Paraguay, Uruguay.

TDWG4. Catarina, Rio Grande do Sul. Jujuy, Salta, Santiago del Estero, Tucuman. Buenos Aires, Chaco, Cordoba, Corrientes, Entre Rios, Formosa, Santa Fe. Tarapaca.

Eriochloa nana M.O. Arriaga. *Hickenia*, 2(32): 139 (1995).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Argentina. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Argentina: Corrientes: Dpto. Lavalle: 3 km E de Yataity Calle, ruta 120, en palmar de Copernicia alba, 25 Nov 1979, A. Schinini, R. Vanni & G. Norrmann 19154 (HT: CTES).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. dwarf*. Smaller than related species.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual. Culms erect, 30–70 cm long. Culm-nodes pubescent. Leaf-sheaths pubescent. Ligule a fringe of hairs. Leaf-blades 5–8 cm long, 2–4 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 3–6(–8), borne along a central axis, unilateral. Rhachis angular. Spikelet packing adaxial. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, acuminate, 4–5.5 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume.

Glumes. Glumes one the lower absent or obscure, reaching apex of florets, thinner than fertile lemma. Upper glume ovate, 1 length of spikelet, membranous, without keels. Upper glume surface pubescent. Upper glume apex acuminate, mucronate or awned, 1 -awned, awn 0.3–1 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, ovate, 3.5–4 length of fertile lemma, pubescent, acuminate, muticous. Fertile lemma elliptic, 2.5 mm long, indurate, without keel. Lemma surface papillose. Lemma margins involute. Lemma apex obtuse, mucronate or awned, 1 -awned. Principal lemma awn 0.5–0.9 mm long overall. Palea involute, indurate.

Flower and Fruit. Caryopsis with adherent pericarp, oblong, dorsally compressed, 1.3 mm long. Embryo 0.5 length of caryopsis. Hilum punctiform.

$2n = 36$ (1 ref TROPICOS).

Distribution (TDWG). Continent. South America.

Country /Province /State. Southern South America. Argentina Northeast.

TDWG4. Corrientes, Formosa.

Eriochloa nelsonii Scribn. & J. G. Sm. *U.S. Dept. Agric. Bull. Agrost.* lv. 12. (1897).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mexico. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *E.W. Nelson 1707*, 1894, Mexico: Oaxaca: hills east of Cuicatlan, alt. 2000–4000 ft (US; IT: K, US-212901).

Illustrations (Books): R.McVaugh, *Flora Nova-Galiciana* Vol.14 *Gramineae* (1983) (as var. *papillosa*).

Derivation (Clifford & Bostock 2007): in honor of Edward William Nelson (1855–1954) United States explorer and naturalist.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, 50–100 cm long. Ligule a fringe of hairs. Leaf-blades lanceolate, 5–20 cm long, 8–15 mm wide. Leaf-blade surface pilose.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, unilateral, 2–5 cm long. Central inflorescence axis 5–15 cm long, pilose. Rhachis angular, pilose on surface. Rhachis hairs 1 mm long. Spikelet packing regular, 2 -rowed. Spikelets in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, villous, with 4–5 mm long hairs.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 5–7 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface pubescent. Upper glume apex obtuse.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, 5 -veined, pubescent, obtuse. Fertile lemma elliptic, 3.5–4 mm long, indurate, shiny, without keel. Lemma margins involute. Lemma apex acute, muticous. Palea involute, indurate. Palea surface smooth or papillose.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. Mexico. Central Mexico, Northeast Mexico, Northwest Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica.** Guatemala, Honduras, Nicaragua.

TDWG4. Mexico State, Morelos, Puebla. Chihuahua, Durango. Sonora. Colima, Guerrero, Jalisco, Michoacan, Nayarit, Oaxaca. Campeche, Chiapas.

Eriochloa pacifica Mez. *Engl. Jahrb. lvi. Beib1.* 125, 11 (1921).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ecuador. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *Andersson 29*, 1854, Ecuador: Guayas: Guayaquil (S).

LT: *H.F.A. Eggers 14772*, 1897, Ecuador (US-825698; ILT: MO (fragm.)). LT designated by Hitchcock, *Contr. U.S. Natl. Herb.* 24: 429, 430 (1927); also by Shaw & Webster, *Sida* 12: 192 (1987).

ST: *Spruce 6446*, Ecuador

ST: *Spruce 6447*, Ecuador

ST: *Andersson 29*, Ecuador

ST: *Ruiz s.n.*, Peru

ST: *Weberbauer 5289*, Peru

ST: *Her Saida s.n.*, Australia: Queensland

ST: *Koch 299*, Australia: Queensland: Mt. Lyndhurst.

Illustrations (Books): G.Harling & C.Persson, *Flora of Ecuador* (2006) (78: 33, Fig. 2 (2006)).

Illustrations (Journals): *Ruizia* (13:345, Fig 43f-g (1993)).

Derivation (Clifford & Bostock 2007): from the west coast of South America and the east coast of Australia.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual. Culms 20–40 cm long. Lateral branches sparse. Ligule a fringe of hairs. Leaf-blades linear or lanceolate, 4–14 cm long, 4–9 mm wide. Leaf-blade surface pubescent.

Inflorescence. Inflorescence composed of racemes. Racemes 4–6, borne along a central axis, unilateral, 1.5–2.5 cm long. Central inflorescence axis 3–6 cm long, pubescent. Rhachis angular, villous on surface. Spikelets in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, 0.5–1.5 mm long, villous, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret

male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 5–6 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels. Upper glume surface pubescent, hairy below. Upper glume apex attenuate, awned, 1 -awned, awn 1 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, membranous, pubescent, hairy below, attenuate. Fertile lemma elliptic, 2 mm long, indurate, without keel. Lemma margins involute. Lemma apex obtuse, mucronate. Principal lemma awn 0.2 mm long overall. Palea involute, indurate.

Distribution (TDWG). **Continent.** South America.

Country /Province /State. **Western South America.** Ecuador, Galapagos, Peru.

Eriochloa parvispiculata C. E. Hubbard. *Kew Bull.* 1934, 111. (1934).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Tanzania. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Zanzibar: without precise locality, *Vaughn 1607* (H: K; IST: EA).

Illustrations (Books): J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (347, Fig 130).

Derivation (Clifford & Bostock 2007): *L. parvus*, small; *spica*, spike or ear of grain; *-ula*, diminutive; *-ata*, possessing. Spikelets much smaller than those of related species.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 30–120 cm long. Ligule a fringe of hairs. Leaf-blades 8–30 cm long, 3–10 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 5–20, borne along a central axis, unilateral, 1–7 cm long. Central inflorescence axis 5–15 cm long. Rhachis narrowly winged, angular, puberulous on surface. Spikelet packing crowded, irregular. Spikelets in pairs or clustered at each node. Fertile spikelets pedicelled, 2–4 in the cluster. Pedicels present, oblong.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, acuminate, 2–2.5 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface pubescent. Upper glume apex acuminate, muticous or mucronate.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 0.9 length of spikelet, 5 -veined, pubescent, acuminate, muticous or mucronate. Fertile lemma elliptic, 1.5 mm long, indurate, without keel. Lemma surface granulate. Lemma margins involute. Lemma apex obtuse, mucronate. Principal lemma awn 0.1–0.3 mm long overall. Palea involute, indurate.

Distribution (TDWG). **Continent.** Africa.

Country /Province /State. **East tropical Africa, Southern Africa, Western Indian ocean.** Kenya, Tanzania. Mpumalanga, Kwazulu-Natal. Madagascar.

Eriochloa peruviana Mez. *Engl. Jahrb.* lvi. Beib1. 12 (1921).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Peru. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: A. *Weberbauer 5952*, 23 Mar 1912, Peru: Piura (US-2873939 (fragm.)).

Illustrations (Journals): *Ruizia* (13:345, Fig 43c-e (1993)).

Derivation (Clifford & Bostock 2007): *L. -ana*, indicating location. From Peru.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual. Culms 20–50 cm long, 3–4 -noded. Ligule a fringe of hairs. Leaf-blades 4–14 cm long, 3–6 mm wide. Leaf-blade surface smooth or scaberulous. Leaf-blade apex filiform.

Inflorescence. Inflorescence composed of racemes. Racemes 5–6, borne along a central axis, erect or ascending, unilateral, 1–1.5 cm long. Central inflorescence axis 2–4 cm long, pubescent. Rhachis angular. Spikelets in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, pubescent, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret

male or barren, the upper fertile. Spikelets lanceolate or elliptic, dorsally compressed, 3 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels. Upper glume surface puberulous. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, membranous, puberulous, acute. Fertile lemma elliptic, 2 mm long, indurate, without keel. Lemma margins involute. Lemma apex obtuse, muticous. Palea involute, indurate.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America. Ecuador, Peru.

Eriochloa polystachya H. B. & K. *Nov. Gen. et Sp.* i. 95. (1815).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*).

TYPE from Ecuador. **Basionym or Replaced Name:** *Paspalum polystachyum* (HBK) Raspail, non R.Br.(1810), *Ann. Sc. Nat. Ser.* 1(5) 301 (1825). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Humboldt & Bonpland s.n.*, Ecuador: Guayas (B (destroyed?); IT: P?).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (516), S.A.Renvoize, *The Grasses of Bahia*, 1984 (239, Fig. 89), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (835 & 851, Fig. 172 & 175), W.Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (229, Fig 79), E.Judziewicz, *Flora of the Guianas*, 187. *Poaceae* (1990) (225, Fig 36).

Illustrations (Journals): *Ruizia* (13:345, Fig 431-m (1993)).

Derivation (Clifford & Bostock 2007): with many close-set culms.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Perennial. Culms rambling, 100–200 cm long, 3–4 mm diam., rooting from lower nodes. Culm-nodes bearded. Lateral branches ample. Ligule a fringe of hairs, 0.8–1.2 mm long. Leaf-blades 10–25 cm long, 8–15 mm wide. Leaf-blade surface glabrous or pubescent.

Inflorescence. Inflorescence composed of racemes. Peduncle 6–12 cm long, pilose above. Racemes 8–15, borne along a central axis, unilateral, 5–8 cm long, secondarily branched. Central inflorescence axis 15–25 cm long, villous. Rhachis narrowly winged, angular, villous on surface. Spikelet packing adaxial. Spikelets solitary or in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, unequal.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, acute, 3.2–3.6 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes reaching apex of florets, thinner than fertile lemma. Lower glume oblate, 0.1 length of spikelet, hyaline, 0 -veined. Lower glume lateral veins absent. Lower glume apex truncate or obtuse. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface pubescent. Upper glume apex acute, muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, 5 -veined, pubescent, acute, muticous. Fertile lemma elliptic, 2.2–2.5 mm long, indurate, without keel. Lemma margins involute. Lemma apex obtuse, mucronate. Palea involute, indurate.

Flower and Fruit. Anthers 3, 1–1.5 mm long.

Distribution (TDWG). Continent. Tropical Asia, North America, South America.

Country /Province /State. **Malesia.** Java, Sumatra. **Mexico.** Southeast Mexico. **Mesoamerica, Caribbean, Northern South America, Western South America, Brazil.** Costa Rica, Honduras. Cuba, Jamaica, Leeward Is, Puerto Rico, Trinidad-Tobago. French Guiana, Guyana. Colombia, Ecuador, Peru. Brazil North, Brazil Southeast, Brazil South.

TDWG4. Chiapas.

Eriochloa procera (Retz.) C. E. Hubbard. *Kew Bull.* 1930, 256 (1930).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae

ms (*Flora Malesiana*), N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960), T.Koyama, *Grasses of Japan and its neighboring regions* (1987), W.D.Clayton & N.Snow, Key to Pacific Grasses (2010).

TYPE from India. **Basionym or Replaced Name:** *Agrostis procera* Retz, *Obs.* 4: 19 (1786). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: India, Malabar: *Koenig* (LD holo).

Illustrations (Books): T.Koyama, *Grasses of Japan and its neighbouring regions* (1987) (374, Fig 147), C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (534), C-C Hsu, *Taiwan Grasses* (1975) (556, Pl. 1430), K.M.Mathew, Illustrations on the *Flora of Tamilnadu Carnatic* (1982) (Pl. 868 & 869), T.A.Cope, *Flora of Pakistan* 143: *Poaceae* (1982), H.B.Gilliland, *Grasses of Malaya* (1971) (203, Fig. 43), H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005) (75, Fig. 71), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (453, Fig. 385), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008) (264), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 732).

Illustrations (Journals): *Ruizia* (13:345, Fig 43h-i (1993)).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);, H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005);, H.B.Gilliland et al., *Flora of Malaya Vol. 3 Grasses* (1971);.

Derivation (Clifford & Bostock 2007): L. tall. Culms tall.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, 20–100 cm long. Ligule a fringe of hairs. Leaf-blades 2–30 cm long, 2–4 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 3–10, borne along a central axis, unilateral, 2–10 cm long. Central inflorescence axis 4–20 cm long. Rhachis angular, puberulous on surface. Spikelet packing regular, 2 -rowed. Spikelets in pairs. Fertile spikelets pedicelled. Pedicels present, free or fused to each other, united below, oblong, glabrous.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, cuspidate or acuminate, (2.5–)3–4 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface pubescent. Upper glume apex acute or acuminate, muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 0.9 length of spikelet, 5 -veined, pubescent, acute or acuminate, muticous. Fertile lemma elliptic, 2 mm long, indurate, without keel. Lemma surface granulose. Lemma margins involute. Lemma apex obtuse, mucronate. Principal lemma awn 0.3–0.5 mm long overall. Palea involute, indurate.

Flower and Fruit. $N = 18$ (2 refs TROPICOS). $2n = 36$ (1 ref TROPICOS).

Distribution (TDWG). **Continent.** Europe (*), Africa (*), Temperate Asia, Tropical Asia, Australasia, Pacific, South America (*).

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Middle Atlantic ocean, Western Indian ocean.** DRC. Ethiopia (inc. Eritrea). Kenya, Tanzania, Uganda. Mozambique. Ascension, St Helena. Madagascar. **China, Eastern Asia.** Hainan, China Southeast. Nansei-Shoto, Ogasawara-shoto, Taiwan. **Indian Subcontinent, Indo-China, Malesia, Papuasias.** Assam, Bangladesh, India, Sri Lanka. Andaman Is, Laos, Myanmar, Thailand, Vietnam. Borneo, Java, Lesser Sunda Is, Malaya, Singapore, Moluccas, Philippines, Sulawesi, Sumatra. New Guinea West Papua (Irian Jaya). New Guinea. **Australia.** Western Australia, Northern Territory, Queensland, New South Wales. **Southwestern Pacific, South-central Pacific, Northwestern Pacific.** Fiji (*), New Caledonia (*), Samoa (*), Tonga (*). Cook Is (*). Caroline Is (*), Marianas (*). Hawaii (*). **Northern South America, Western South America.** Guyana, Surinam. Colombia, Ecuador, Peru.

TDWG4. Fujian, Guangdong. Kerala. Punjab, Tamilnadu, Uttah Pradesh. Kimberley, Eremean, South-West. Darwin & Gulf. North, Central, South East, Inland. Coast, Western Slopes, Western Plains.

Eriochloa pseudoacrotricha (Stapf ex Thell.) J. M.Black. *Fl. S. Austral.*, ed. 2, 68 (1943).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Australia: Coll? (K holo).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (454, Fig. 386), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (233, Pl. 68), J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (1175, Fig. 332), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (598, Fig 121), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler, *Grasses of New South Wales*, 4th edn (2008) (264), J.C.Tothill, & J.B.Hacker. *The grasses of southern Queensland* (1983) (240), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (235, Fig. 37), D.Sharp & B.K.Simon, *AusGrass. Grasses of Australia*. CD-Rom Version 1.0. (2002), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (516).

Images: D.Sharp & B.K.Simon, *AusGrass. Grasses of Australia*. CD-Rom Version 1.0. (2002);

Derivation (Clifford & Bostock 2007): Gk. pseudos, false. Resembling *Eriochloa racemosa* var. *Eriochloa acrotricha*.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Culms erect, 20–100 cm long, 1–2.5 mm diam., 2–5 -noded. Culm-nodes brown, pubescent. Lateral branches sparse. Leaf-sheaths loose, mostly shorter than adjacent culm internode, glabrous on surface. Ligule a fringe of hairs, 1 mm long. Leaf-blades involute, 15–30 cm long, 2–4 mm wide. Leaf-blade surface glabrous or pubescent, hairy abaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 2–10, borne along a central axis, appressed, unilateral, 2–10 cm long. Central inflorescence axis 7–18 cm long. Rhachis angular. Spikelets in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, 0.5–2.5 mm long, bearing a few hairs, hairy at tip, with 2–3 mm long hairs.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, acuminate, 4.5–6 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume ovate, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface villous, hairy below. Upper glume apex acuminate to setaceously acuminate, muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 0.9 length of spikelet, 5 -veined, pilose, acute. Fertile lemma elliptic, 2.5 mm long, indurate, shiny, without keel, 5 -veined, more than 3-veined. Lemma margins involute. Lemma apex acute, mucronate. Palea involute, indurate.

Flower and Fruit. Anthers 3, 1 mm long.

Distribution (TDWG). Continent. Europe (*), Australasia, North America, South America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Australia.** Western Australia, Northern Territory, South Australia, Queensland, New South Wales, Victoria. **South-central USA.** Texas. **Southern South America.** Argentina Northwest.

TDWG4. Kimberley, Eremean. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre, Southern. North, Central, South East, Inland. Coast, Tablelands, Western Slopes, Western Plains. La Rioja.

Eriochloa punctata (L.) Ham. *Prod. Fl. Ind. Occ.* 5 (1825).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)*, W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Jamaica. **Basionym or Replaced Name:** *Milium punctatum* L., *Syst. Nat. (ed. 10)* 872 (1759) (May, June)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *P. Browne s.n.*, Jamaica (LINN). see Hitchcock, *Contr. U.S. Natl. Herb.* 12: 119 (108).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (514), A.S.Hitchcock, *Manual of the Grasses of the West Indies* (1936) (184, Fig. 117), S.A.Renvoize, *Gramineas de Bolivia* (1998) (439, Fig. 95), S.A.Renvoize, *The Grasses of Bahia*, 1984 (239, Fig. 89), E.G.Nicora, *Los Generos de Gramineas de America Austral* (1987) (485, Fig. 174), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (835, Fig. 172 & 847, Fig. 174), A.Burkat, *Flora Ilustrada de Entre Rios (Argentina)*, Pt II, *Gramineas* (1969) (329, Fig. 135 & as *E. punctata* forma *intermedia*), A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (490, Fig. 126), F.O.Zuloaga et al, *Flora del Paraguay* 23 (1994), B.Rosengurtt, *Gramineas Uruguayas I* (1970) (318, Fig. 135), E.Hafliger & E.Schultz, *Grass Weeds*, CIBA-GEIGY (1:59(1980)).

Illustrations (Journals): *Ruizia* (13:345, Fig 43j-k (1993)).

Derivation (Clifford & Bostock 2007): lower glume very reduced and colored.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 60–100 cm long. Culm-nodes glabrous or pubescent. Leaf-sheaths hispid, with tubercle-based hairs. Ligule a fringe of hairs. Leaf-blades 20–40 cm long, 4–10 mm wide. Leaf-blade surface smooth or scaberulous, glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 10–15, borne along a central axis, unilateral, 2–6 cm long. Central inflorescence axis 8–18 cm long. Rhachis angular, glabrous on surface, scabrous on margins. Spikelet packing adaxial. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong, unequal, scabrous.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, acuminate, 4–5 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, reaching apex of florets, thinner than fertile lemma. Upper glume ovate, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface pubescent. Upper glume apex acuminate, awned, 1 -awned, awn 1 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, 5 -veined, pubescent, acuminate, mucous. Fertile lemma elliptic, 1–1.5 mm long, indurate, without keel. Lemma margins involute. Lemma apex obtuse, awned, 1 -awned. Principal lemma awn 1–1.5 mm long overall. Palea involute, indurate.

Flower and Fruit. Anthers 3.

N = 36 (1 ref TROPICOS).

Distribution (TDWG). Continent. Tropical Asia, Pacific, North America, South America.

Country /Province /State. Malesia. Java. **North-central Pacific.** Hawaii (*). **South-central USA, Southeastern USA, Mexico.** Texas. Louisiana. Central Mexico, Northeast Mexico, Gulf (Mexico), Southwest Mexico, Southeast Mexico. **Mesoamerica, Caribbean, Northern South America, Western South America, Brazil, Southern South America.** Belize, Costa Rica, Guatemala. Cuba, Dominican Republic, Haiti, Jamaica, Leeward Is, Windward Islands, Puerto Rico, Trinidad-Tobago. French Guiana, Guyana, Surinam, Venezuela. Bolivia, Colombia, Ecuador, Peru. Brazil West Central, Brazil Northeast, Brazil South. Argentina Northeast, Argentina Northwest, Chile North, Paraguay, Uruguay.

TDWG4. Para, Amapa, Mato Grosso, Goias, Bahia, Maranhao, Piaui, Ceara, Rio Grande do Norte, Paraiba, Penambuco, Alagoas, Sergipe, Minas Gerais, Rio de Janeiro, Espirito Santo, Sao Paulo Parana, Catarina, Rio Grande do Sul. Catamarca, Jujuy, Salta, San Luis, Tucuman. Buenos Aires, Chaco, Cordoba, Corrientes, Distrito Federal, Entre Rios, Formosa, Misiones, Santa Fe. Distrito Federal, Mexico State, Morelos. Coahuila, Chihuahua, Guanajuato, Hidalgo, Neuvo Leon, San Luis Potosi, Tamaulipas, Zacatecas. Veracruz. Michoacan, Oaxaca. Chiapas, Tabasco, Yucatan.

Eriochloa rovomensis (Pilger) W.D. Clayton. *Kew Bull.*, 34(3): 560 (1980).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online.

TYPE from Tanzania. **Basionym or Replaced Name:** *Panicum rovomense* Pilg., *Bot. Jahrb. Syst.* 33(1): 47–48 (1902)

. T:<Type of Basionym>; *vide* TROPICOS and Kew Synonymy Database: HT: *Busse 1016*, Feb 1901, Tanzania: Rovuma (B; IT: K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From Rovuma now Mozambique.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual. Culms decumbent, 45–60 cm long. Ligule a fringe of hairs. Leaf-blades 3–15 cm long, 2–8 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 3–6, borne along a central axis, unilateral, 1.5–3 cm long. Central inflorescence axis 3–8 cm long. Rhachis angular, pilose on surface. Spikelet packing adaxial, regular, 2 -rowed. Spikelets solitary or in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, ciliate.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, acuminate, 3.5–5.5 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes dissimilar, exceeding apex of florets, thinner than fertile lemma. Lower glume lanceolate, 0.8 length of spikelet, membranous, without keels, 3–5 -veined. Lower glume surface pilose. Lower glume apex

acuminate. Upper glume ovate, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface pilose. Upper glume apex attenuate, muticous or awned, 1 -awned, awn 0–1 mm long.

Florets. Basal sterile florets 1, barren, with palea. Lemma of lower sterile floret similar to upper glume, ovate, 0.75–0.8 length of spikelet, 5 -veined, pilose, acuminate. Fertile lemma ovate, 3–4 mm long, indurate, without keel. Lemma surface granulose. Lemma margins involute. Lemma apex acute, mucronate. Palea involute, indurate.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa, East tropical Africa, South tropical Africa. Chad. Tanzania. Mozambique.

Eriochloa sericea (Scheele) Munro ex Vasey. *Contrib. U.S. Nat. Herb.* iii. 21 (1892).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Paspalum sericeum* Scheele, *Linnaea* 22(3): 341–342 (1849)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *F. Lindheimer* 566, Jun 1846, USA: Texas: Comal Co.: Neubranfels (K; IT: MO, NY, US-1871076, US-80017). Acc. to Blankinship, *Ann. Rep. Mo. Bot.* 1907: 151 (1907) type is *Lindheimer* 566..

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (510), F.W.Gould, *The Grasses of Texas* (1975) (434, Fig. 232).

Derivation (Clifford & Bostock 2007): *L. sericus*, silken; -ea, indicating resemblance. Densely invested in part or totally with long hairs.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms erect, 50–100 cm long. Culm-nodes pubescent. Lateral branches lacking. Leaf-sheaths pubescent. Ligule a fringe of hairs. Leaf-blades flat or involute, 2–3 mm wide. Leaf-blade surface glabrous or pubescent.

Inflorescence. Inflorescence composed of racemes. Racemes 4–10, borne along a central axis, erect, unilateral, 1.5–3 cm long. Central inflorescence axis villous. Rhachis angular, villous on surface. Rhachis hairs 2–4 mm long. Spikelet packing regular, 2 -rowed. Spikelets in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, villous, with 1–2 mm long hairs.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate, dorsally compressed, 3.6–4.2 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface pubescent. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, 5 -veined, pubescent, acute. Fertile lemma elliptic, 3 mm long, indurate, without keel. Lemma surface rugulose. Lemma margins involute. Lemma apex obtuse, mucronate. Principal lemma awn 0.3–0.5 mm long overall. Palea involute, indurate.

Flower and Fruit. $2n = 54$ (1 ref TROPICOS).

Distribution (TDWG). Continent. North America.

Country /Province /State. North-central USA, South-central USA, Mexico. Oklahoma. Texas. Northeast Mexico.

Coahuila, Tamaulipas.

Eriochloa setosa (A. Rich.) Hitchcock. *U. S. in Dept. Agric., Misc. Publ. No.* 243 : 182 (1936).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Cuba. **Basionym or Replaced Name:** *Piptatherum setosum* A. Rich., *Hist. Fis. Cuba, Bot.* 11: 311 (1850)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Cuba: crescit in locis siccis et incultis Cubae, (HT: P).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. seta*, bristle; -osa, abundance. Each raceme subtended by a stout bristle.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 15–40 cm long. Ligule a fringe of hairs. Leaf-blades filiform, 5–15 cm long, 0.5 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 2–4, borne along a central axis, unilateral, 1–2 cm long, bearing 5–8 fertile spikelets on each. Central inflorescence axis 1–6 cm long. Rhachis angular, glabrous on surface. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong, 0.5–1 mm long, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 3.5 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels. Upper glume surface pubescent. Upper glume apex attenuate.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, membranous, pubescent, attenuate. Fertile lemma elliptic, 2 mm long, indurate, without keel. Lemma surface granulate. Lemma margins involute. Lemma apex obtuse, awned, 1 - awned. Principal lemma awn 1 mm long overall. Palea involute, indurate.

Distribution (TDWG). Continent. South America.

Country /Province /State. Caribbean. Cuba.

Eriochloa stapfiana Clayton. *Kew Bull.*, 30(1): 109 (1975).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mozambique. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Mozambique: Niassa: Msalu River, *Allen 122* (HT: K).

Recent Synonyms: *Eriochloa borumensis* Hack., *Bull. Herb. Boiss. Ser.* 2(1) 165 (1901).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (369, Fig 317 as *E. borumensis* Stapf).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. -ana, indicating connection. As for *Stapfia*.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms robust, 60–120 cm long. Ligule a fringe of hairs. Leaf-blades 4–20 cm long, 3–8 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes numerous, borne along a central axis, unilateral, 2–7 cm long, simple or secondarily branched. Central inflorescence axis 7–30 cm long. Rhachis angular, puberulous on surface or pubescent on surface. Spikelet packing irregular. Spikelets in pairs. Fertile spikelets pedicelled. Pedicels present, oblong.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets ovate, dorsally compressed, acuminate, 3–4 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface pubescent. Upper glume apex attenuate, mucicous or mucronate, awn 1 mm long.

Florets. Basal sterile florets 1, male or barren, with palea. Lemma of lower sterile floret similar to upper glume, elliptic, 0.9 length of spikelet, 5 -veined, pubescent, acuminate, mucronate. Fertile lemma elliptic, 2 mm long, indurate, without keel. Lemma surface granulate. Lemma margins involute. Lemma apex obtuse, mucronate. Principal lemma awn 0.3–0.7 mm long overall. Palea involute, indurate.

Distribution (TDWG). Continent. Africa.

Country /Province /State. East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean. Kenya, Tanzania. Malawi, Mozambique. Limpopo, Mpumalanga, Swaziland, Kwazulu-Natal. Madagascar.

Eriochloa stevensii G. Davidse. *Novon*, 2(4): 325 (1992).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Nicaragua. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *W.D. Stevens & O.M. Montiel 20608*, 20 Aug 1981, Nicaragua: Granada: 31 km NW of Rmo Ochomogo bridge along

Hwy. 1, ca. 11:40'N, 85:59' W, ca. 60 m, level *Crescentia* savanna, common, erect, inflorescence whitish green (MO-3244051; IT: BRI, CR-203154, HNMN, ISC, K, MEXU, SI, US-3278351).

Recent Synonyms: *Eriochloa multiflora* Renvoize, *Kew Bull.* 50: 345 (1995).

Illustrations (Journals): *Kew Bulletin* (50: 114, Fig.3 (1995) as *E. multiflora*), *Novon* (2: 327, Fig. 3 (1992)).

Derivation (Clifford & Bostock 2007): in honor of Warren Douglas Stevens (1944-) United States botanist.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual. Culms erect, 50–100 cm long. Culm-internodes distally pubescent. Leaves cauline. Leaf-sheaths pubescent. Ligule a fringe of hairs, 0.5–1 mm long. Leaf-blades 10–21 cm long, 4–14 mm wide. Leaf-blade surface pubescent, densely hairy.

Inflorescence. Inflorescence composed of racemes. Racemes numerous, 17–57, borne along a central axis, ascending, unilateral, 3.4–5.5 cm long, 4–5 mm wide. Central inflorescence axis 13–21 cm long, pubescent. Rhachis angular, pubescent on surface. Spikelets in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, 0.3–0.7 mm long, pubescent, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 3.4–5.5 mm long, 1.2 mm wide, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, 0.2–0.3 mm long, glabrous.

Glumes. Glumes one the lower absent or obscure, reaching apex of florets or exceeding apex of florets, thinner than fertile lemma. Upper glume lanceolate, 3.4–5.5 mm long, 1 length of spikelet, membranous, without keels, 3 -veined. Upper glume surface pubescent, hairy below. Upper glume apex acuminate, mucronate or awned, 1 -awned, awn 0–1 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, lanceolate, 0.8–1 length of spikelet, membranous, 3 -veined, pubescent, hairy below, acuminate. Fertile lemma elliptic, 1.9–2.3 mm long, 0.8–1 mm wide, indurate, without keel. Lemma surface papillose. Lemma margins involute. Lemma apex obtuse, pubescent, mucronate or awned, 1 -awned. Principal lemma awn 0.1–0.4 mm long overall. Palea involute, indurate.

Flower and Fruit. Anthers 3, 1.1–1.3 mm long, yellow. Caryopsis with adherent pericarp, ellipsoid, 1.1–1.2 mm long. Embryo 0.33 length of caryopsis. Hilum linear, 0.33 length of caryopsis.

Distribution (TDWG). Continent. South America.

Country /Province /State. Mesoamerica, Northern South America, Western South America. Costa Rica, Nicaragua. Venezuela. Ecuador, Peru.

Eriochloa subulifera Stapf. *Kew Bull.* 1919, 141. (1919).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Mascarenes. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Mascarenes, Assumption Island, *Fox 258261* (syn: K).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual. Culms geniculately ascending, 25–60 cm long, 3–4 -noded. Culm-internodes distally glabrous. Leaf-sheaths glabrous on surface or pubescent. Ligule a fringe of hairs. Leaf-blades 4–8 cm long, 3–5 mm wide. Leaf-blade surface smooth, glabrous. Leaf-blade apex attenuate.

Inflorescence. Inflorescence composed of racemes. Peduncle glabrous. Racemes 4–9, borne along a central axis, unilateral, 1.8–3.5 cm long. Central inflorescence axis 4–9 cm long, puberulous. Rhachis angular, 0.2–0.5 mm wide, puberulous on surface. Spikelets solitary or in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, 1–2.5 mm long, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate or ovate, dorsally compressed, 2.5–3 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, 0.25 mm long, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface pubescent. Upper glume apex acuminate, awned, 1 -awned, awn 1–1.5 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, membranous, pubescent, acute. Fertile lemma elliptic or oblong, 2 mm long, indurate, without keel. Lemma margins involute. Lemma apex obtuse, mucronate. Principal lemma awn 0.5 mm long overall. Palea involute, indurate.

Flower and Fruit. Anthers 3, 1 mm long.
Distribution (TDWG). Continent. Africa.
Country /Province /State. Western Indian ocean. Aldabra, Madagascar.

Eriochloa succincta (Trin.) Kunth. *Enum. Pl.* i. 73. (1833).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983).

Basionym or Replaced Name: *Paspalum succinctum* Trin., *Gram. Panic.* 119 (1826)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: T: *Blume s.n.*, 1817, Europ. Russia: Astrakhan (LE).

IT: *s.c.*, *s.l.* (LE).

HT: *Ledebour*, Astrachan (LE). *mis. sub nom.*: *Panici holosericei* Blume.

HT: *Blume s.n.*, 1817, USSR: Volga Delta: Astrachan (LE).

Illustrations (Books): N.L.Bor, *Gramineae in Flora of Iraq* (1968) (485, Pl. 186).

Derivation (Clifford & Bostock 2007): *L. compact.* Inflorescence branches held erect.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Annual. Culms erect or geniculately ascending, 20–50 cm long. Culm-internodes glaucous, distally pilose. Leaf-sheaths pilose, with tubercle-based hairs. Ligule a fringe of hairs, 1 mm long. Leaf-blades lanceolate, 1–10 cm long, 2–5 mm wide, glaucous. Leaf-blade surface pilose, hairy on both sides, with tubercle-based hairs. Leaf-blade margins scaberulous. Leaf-blade apex acute or acuminate.

Inflorescence. Inflorescence composed of racemes, embraced at base by subtending leaf. Racemes 3–6, borne along a central axis, unilateral, 1–4 cm long. Central inflorescence axis 10–20 cm long. Rhachis narrowly winged, angular. Spikelet packing regular, 2 -rowed. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong, 1–2 mm long, pubescent.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 3 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface pubescent. Upper glume apex acute, mucicous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 0.9 length of spikelet, 5 -veined, pubescent, acute. Fertile lemma elliptic, 2.5 mm long, indurate, without keel. Lemma margins involute. Lemma apex acute, pubescent, mucronate. Palea involute, indurate.

Distribution (TDWG). Continent. Europe, Temperate Asia.

Region. Eastern Europe.

Country /Province /State. East European Russia, South European Russia. **Middle Asia, Caucasus, Western Asia.** Kazakhstan, Tadzhikistan, Uzbekistan. Iran, Iraq.

TDWG4.

Eriochloa tridentata (Trin.) Kuhl. *Comm. Linh. Telegr. Matto Grosso, Amaz. Anexo 5, Bot.* xi. 89 (1922).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

Basionym or Replaced Name: *Paspalum tridentatum* Trin., *Gram. Panic.* 119 (1826)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Lindley s.n.*, America aequinoct. (LE-TRIN-0552.01a (& fig.)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. tria*, three; *dens*, tooth; -ata, possessing.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect or geniculately ascending, 90–110 cm long. Culm-nodes bearded. Ligule a fringe of hairs. Leaf-blades 20–40 cm long, 4–10 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence composed of racemes. Racemes 7–20, borne along a central axis, unilateral, 2–6 cm long. Central inflorescence axis 8–18 cm long. Rhachis angular. Spikelet packing adaxial. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, acuminate, 4–5 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, reaching apex of florets, thinner than fertile lemma. Upper glume ovate, 1 length of spikelet, membranous, without keels, 5 -veined. Upper glume surface hirsute, hairy below. Upper glume apex dentate, 3 -fid.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, ovate, 1 length of spikelet, 5 -veined, acuminate, muticous. Fertile lemma elliptic, 1–1.5 mm long, indurate, without keel. Lemma margins involute. Lemma apex obtuse, awned, 1 -awned. Principal lemma awn 0.7–1 mm long overall. Palea involute, indurate.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil. Brazil West Central.

TDWG4. Catamarca. Chaco, Corrientes, Entre Rios, Formosa, Santa Fe.

Eriochloa villosa (Thunb.) Kunth. *Rev. Gram.* i. 30 & 203. t. 13. (1829).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*), T.G.Tutin et al, *Flora Europaea* 5 (1980), N.Tsvelev, *Grasses of the Soviet Union* (1983), T.Koyama, *Grasses of Japan and its neighboring regions* (1987).

TYPE from Japan. **Basionym or Replaced Name:** *Paspalum villosum* Thunb., *Fl. Jap.* 45 (1784)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Japan: rescit iuxta Nagasaki, (HT: B).

Illustrations (Books): T.Koyama, *Grasses of Japan and its neighbouring regions* (1987) (372, Fig 146), C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (536), C-C Hsu, *Taiwan Grasses* (1975), M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (510), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 732).

Derivation (Clifford & Bostock 2007): L. villi, long weak hairs; -osa, abundance. The plant in whole or in part covered with long hairs.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Perennial, caespitose, clumped loosely. Culms geniculately ascending, 60–90 cm long, 2–3 mm diam., 3–6 -noded. Leaves cauline. Leaf-sheaths pubescent, outer margin hairy. Ligule a ciliate membrane, 1.25–1.33 mm long. Leaf-blades linear or lanceolate, 5–20 cm long, 3–13 mm wide. Leaf-blade surface pubescent, hairy on both sides. Leaf-blade margins scaberulous. Leaf-blade apex attenuate.

Inflorescence. Inflorescence composed of racemes. Racemes 3–9, borne along a central axis, unilateral, 4–7 cm long. Central inflorescence axis 6–12 cm long, pubescent. Rhachis angular, 0.7–1 mm wide, pubescent on surface. Spikelet packing regular, 2 -rowed. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, oblong, 1 mm long, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic or ovate, dorsally compressed, acute, 4.5–5 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, reaching apex of florets, thinner than fertile lemma. Upper glume elliptic or ovate, 1 length of spikelet, herbaceous, without keels, 5 -veined. Upper glume surface pilose. Upper glume apex acute, muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic or ovate, 1 length of spikelet, 5 -veined, pilose, acute. Fertile lemma elliptic or ovate, 4 mm long, indurate, without keel. Lemma margins involute. Lemma apex acute, mucronate. Palea involute, indurate.

Flower and Fruit. $2n = 54$ (3 refs TROPICOS).

Distribution (TDWG). Continent. Europe, Temperate Asia, Tropical Asia, North America.

Region. Eastern Europe.

Country /Province /State. South European Russia, Ukraine. Siberia, Russian far east, **Caucasus, China, Eastern Asia, Russia.** Amur, Primorye. China Southeast. Japan, Korea, Nansei-Shoto, Ogasawara-shoto, Taiwan. Japan Honshu, or Shikoku, or Kyushu. **Indo-China, Malesia.** Vietnam. Malaya, Singapore. **Northwest USA, North-central USA, Southeastern USA.** Colorado. Illinois, Iowa, Minnesota, Wisconsin. Florida.

TDWG4. Shaanxi, Shandong, Tianjin. Anhui, Fujian, Guangdong, Henan, Jiangsu, Jiangxi, Zhejiang. Guizhou, Hubei, Sichuan, Yunnan.

Eriochloa weberbaueri Mez. *Engl. Jahrb.* lvi. Beib1. 11 (1921).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Peru. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: A. Weberbauer 4135, 26 May 1904, Peru: Cajamarca: Hualgayoc Prov. (B; IT: US-2873942 (fragm. ex B & photo)).

Illustrations (Books): G.Harling & C.Persson, *Flora of Ecuador* (2006) (78: 51, Fig. 3 (2006)).

Illustrations (Journals): *Ruizia* (13:345, Fig 43.a-b (1993)).

Derivation (Clifford & Bostock 2007): in honor of August Weberbauer (1871–1948) German botanist resident in Peru.

Classification. Subfamily Panicoideae. Tribe: Paniceae. Subtribe MELINIDINAE.

Habit, Vegetative Morphology. Perennial, mat forming. Rhizomes short. Culms 35–40 cm long. Ligule a fringe of hairs. Leaf-blades conduplicate or involute, 6–13 cm long, 2–2.3 mm wide, stiff. Leaf-blade apex pungent.

Inflorescence. Inflorescence composed of racemes. Racemes 10–15, borne along a central axis, oblong, unilateral, 1.3–2 cm long. Central inflorescence axis 10–15 cm long, pubescent. Rhachis angular, pilose on surface. Spikelet packing crowded. Spikelets in pairs. Fertile spikelets pedicelled. Pedicels present, oblong, 0.5 mm long, villous, with 3–3.5 mm long hairs, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic or oblong, dorsally compressed, 3–3.2 mm long, falling entire. Spikelet callus globular, incorporating lowest rhachilla internode with adnate lower glume, glabrous.

Glumes. Glumes one the lower absent or obscure, exceeding apex of florets, thinner than fertile lemma. Upper glume elliptic, 1 length of spikelet, membranous, without keels. Upper glume surface pubescent. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret similar to upper glume, elliptic, 1 length of spikelet, membranous, pubescent, acute. Fertile lemma elliptic or oblong, 2.5–2.7 mm long, indurate, without keel. Lemma margins involute. Lemma apex acute, mucicous. Palea involute, indurate.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America. Ecuador, Peru.

Eriochrysis brachypogon (Stapf) Stapf. *Prain, Fl. Trop. Afr.* ix. 93 (1917).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Nigeria & Central Afr. Rep. **Basionym or Replaced Name:** *Saccharum brachypogon* Stapf, *Bull. Soc. Bot. France* 55: 97 (1908)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Chevalier 716*, Mali (P).

ST: *Barter 1351*, Nigeria (P).

ST: *Chevalier 8251*, Central African Republic (P).

Illustrations (Books): H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962) (269, Fig. 200), R.M.Phillips, F.T.E.A., *Gramineae* (3(1982):708, Fig 162), G.V.Pope et al., *Flora Zambesiaca* 10, S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995).

Derivation (Clifford & Bostock 2007): Gk. brachys, short; pogon, beard. Callus shortly hairy.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 60–90 cm long. Culm-internodes thin-walled. Culm-nodes bearded. Ligule an eciliate membrane or a fringe of hairs, erose. Leaf-blades 7–45 cm long, 1–3 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 4–16, borne along a central axis, appressed, linear to oblong, 2–4 cm long. Central inflorescence axis 4–14 cm long. Rhachis fragile at the nodes, subterete, ciliate on margins. Rhachis hairs red. Rhachis internodes linear. Rhachis internode tip clavate. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster, the upper smaller (female). Pedicels present, linear, ciliate.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 3.5–5 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded, base truncate. Spikelet callus hairs red, 0.3–0.5 length of spikelet.

Glumes. Glumes dissimilar, reaching apex of florets, firmer than fertile lemma, shiny. Lower glume elliptic, 1 length of spikelet, coriaceous, without keels. Lower glume lateral veins obscure. Lower glume surface flat. Lower glume margins ciliate. Lower glume apex dentate, 3 -fid. Upper glume elliptic, coriaceous, 1-keeled. Upper glume primary vein eciliate. Upper glume margins ciliate. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret lanceolate, 1 length of spikelet, hyaline, 0 -veined, without midvein, without lateral veins, ciliate on margins. Fertile lemma ovate, 1.5 mm long, hyaline, without keel, 0 -veined, 0–3 -veined, without veins. Lemma margins ciliate. Palea absent or minute.

Flower and Fruit. Anthers 3.

N = 10 (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa. Ghana, Nigeria, Senegal. Central African Republic, Rwanda, DRC. Ethiopia (inc. Eritrea). Kenya, Tanzania, Uganda. Malawi, Zambia, Zimbabwe. Limpopo, Mpumalanga, Swaziland.

Eriochrysis cayennensis Beauv. *Agrost.* 8. t. 4. f. 11 (1812).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: T: French Guiana: Cayenne (G?).

Illustrations (Books): A.S.Hitchcock, *Manual of the Grasses of the West Indies* (1936) (382, Fig. 346), S.A.Rennoize, *Gramineas de Bolivia* (1998) (539, Fig. 133), E.G.Nicora, *Los Generos de Gramineas de America Austral* (1987) (510, Fig. 182), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (1211, Fig. 238 & 1212, Fig. 239), A.Burkat, *Flora Ilustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (450, Fig. 191), W.Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (232, Fig. 80 as *E. cayannensis*), B.Rosengurt, *Gramineas Uruguayas I* (1970) (176, Fig. 70 as *E. cayannensis*), E.Judziewicz, *Flora of the Guianas*, 187. *Poaceae* (1990) (228, Fig. 37).

Illustrations (Journals): *Ruizia* (13:422 Fig 56e-g (1993)).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From Cayenne, French Guiana.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 60–110 cm long. Leaves basal and cauline. Leaf-sheaths glabrous on surface or pubescent. Leaf-sheath oral hairs bearded, 8 mm long. Ligule an eciliate membrane, 1.5–1.8 mm long. Leaf-blades conduplicate, 18–30 cm long, 3–5 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, closely spaced, in a multilateral false spike, appressed, linear to oblong, 1–2 cm long. Central inflorescence axis 10–20 cm long. Rhachis fragile at the nodes, subterete. Rhachis internodes linear. Rhachis internode tip clavate. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster, the upper smaller (female). Pedicels present, linear, 1–1.3 mm long, ciliate, with dark brown hairs, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets oblong, dorsally compressed, obtuse, 2.5–3.5 mm long, 1.1–1.3 mm wide, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded, base truncate. Spikelet callus hairs dark brown, 2–2.5 mm long, 0.66 length of spikelet.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma, shiny. Lower glume oblong, 2.5–3.5 mm long, 1 length of spikelet, coriaceous, without keels. Lower glume surface flat, villous, hairy above. Lower glume margins ciliate. Lower glume hairs dark brown or red, 2 mm long. Lower glume apex obtuse.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, 1.8–2 mm long, hyaline, 0 -veined, without midvein, without lateral veins, ciliate on margins. Fertile lemma lanceolate, 1.2–1.4 mm long, hyaline, without keel, 0 -veined, 0–3 -veined, without veins. Lemma margins ciliate. Palea absent or minute.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. Mexico. Gulf (Mexico), Southwest Mexico, Southeast Mexico. Mesoamerica, Caribbean, Northern South America, Western South America, Brazil, Southern South America. Belize, Costa Rica, Guatemala, Honduras, Panama. Dominican Republic, Haiti, Puerto Rico, Trinidad-Tobago. French Guiana, Guyana, Surinam, Venezuela. Bolivia, Colombia, Peru. Brazil West Central, Brazil Northeast, Brazil North, Brazil Southeast, Brazil South. Argentina Northeast, Uruguay.

TDWG4. Roraima, Para, Amapa, Goias, Minas Gerais, Rio de Janeiro, Espirito Santo, Sao Paulo Parana, Catarina, Rio Grande do Sul. Corrientes, Entre Rios, Misiones. Veracruz. Michoacan, Oaxaca. Chiapas, Tabasco.

Eriochrysis filiformis (Hack.) T.S. Filgueiras. *Novon*, 7(3): 231 (1997).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Paraguay. **Basionym or Replaced Name:** *Saccharum filiforme* Hack., *Monogr. Phan.* 6: 29 (1889)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Balansa 231*, Paraguay: Caaguazu, in pratis uliginosis (P; IT: US (fragm. ex BR, W)).

Illustrations (Books): L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (593, Fig. 129 as *Leptosaccharum filiforme*).

Illustrations (Journals): *Hooker's Icones Plantarum* (t.3125 (1927) as *Leptosaccharum filiforme*), *Novon* (6: 232 Fig. 1 (1996)).

Derivation (Clifford & Bostock 2007): L. filum, thread; forma, shape.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Rhizomes short, knotty. Culms erect, 30–55 cm long, 2–4 -noded. Culm-internodes thin-walled, distally glabrous. Culm-nodes pubescent. Lateral branches lacking. Leaves mostly basal. Leaf-sheaths without keel, striately veined, glabrous on surface, outer margin glabrous. Ligule a ciliate membrane, 1–1.5 mm long. Leaf-blades flat or involute, 10–45 cm long, 1–3 mm wide. Leaf-blade surface scabrous, rough adaxially. Leaf-blade apex acute.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, distant, ascending, bearing few fertile spikelets, bearing 2–4 fertile spikelets on each. Central inflorescence axis 4–7 cm long. Rhachis fragile at the nodes, subterete. Rhachis internodes linear. Rhachis internode tip clavate. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster, the upper smaller (female). Pedicels present, linear, 4–6 mm long.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, acute, 4.5–5.5 mm long, falling entire, deciduous from the base and with accessory branch structures. Spikelet callus bearded, base truncate. Spikelet callus hairs red, 2–4 mm long, 0.5–0.8 length of spikelet.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 4–4.8 mm long, 1 length of spikelet, cartilaginous, without keels, 5–7 -veined. Lower glume lateral veins prominent. Lower glume surface flat, glabrous or pilose. Lower glume hairs red. Upper glume elliptic, 3.5–4 mm long, 5–7 -veined. Upper glume lateral veins prominent. Upper glume surface glabrous or pilose. Upper glume hairs red.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret lanceolate, 2.8–3.2 mm long, hyaline. Fertile lemma lanceolate, 3–3.3 mm long, hyaline, without keel. Lemma surface puberulous. Lemma margins ciliate. Palea absent or minute.

Flower and Fruit. Anthers 3, 3–3.3 mm long, purple.

Distribution (TDWG). Continent. South America.

Country /Province /State. **Brazil and Southern South America.** Brazil West Central, Brazil Southeast. Paraguay.

TDWG4.

Eriochrysis holcoides (Nees) Kuhl. *Comm. Linh. Telegr. Matto Grosso, Amaz. Anexo 5, Bot.* xi. 89 (1922).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. **Basionym or Replaced Name:** *Anatherum holcoides* Nees, *Fl. Bras. Enum. Pl.* 2(1): 324–325 (1829)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *F. Sellow s.n.*, Brazil: Brasiliae australis (B, LE-TRIN-0228.01).

ST: *K.F.P. von Martius s.n.*, no date, Brazil: habitat in campis altis Chapada do Paranan et similibus locis prov. Minarum, Piauhensis et Pernambucensis (M; IT: US-76424 (fragm. ex M)).

Illustrations (Books): J.A.Steyermark et al, *Flora of the Venezuelan Guayana* Vol. 8 (2004) (as aff.), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (1211, Fig. 238).

Derivation (Clifford & Bostock 2007): Gk. -oides, resembling. Similar to *Holcus* with respect to the inflorescence.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths withering or persistent and investing base of culm, with fibrous dead sheaths. Culms erect, 50–70 cm long, 2–3 -noded. Culm-nodes bearded. Leaves basal and cauline. Leaf-sheath oral hairs ciliate. Ligule an eciliate membrane, 1–1.5 mm long. Leaf-blades 15–30 cm long, 3–4 mm wide. Leaf-blade apex acute or acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, closely spaced, in a multilateral false spike, appressed, linear to oblong, 0.5–2 cm long. Central inflorescence axis 6–15 cm long. Rhachis fragile at the nodes, subterete. Rhachis internodes linear. Rhachis internode tip clavate. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster, the upper smaller (female). Pedicels present, linear, 2–2.2 mm long, ciliate, with yellow hairs, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, acute, (4–)5–7 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded, base truncate. Spikelet callus hairs yellow, 1 mm long, 0.33–0.5 length of spikelet.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma, shiny. Lower glume elliptic, 4–7 mm long, 1 length of spikelet, cartilaginous, without keels. Lower glume surface flat, glabrous. Lower glume margins ciliate. Lower glume hairs yellow, 0.5–1 mm long. Lower glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret lanceolate, 4.5 mm long, hyaline, 0 -veined, without midvein, without lateral veins, ciliate on margins. Fertile lemma lanceolate, 3 mm long, hyaline, without keel, 0 -veined, 0–3 -veined, without veins. Lemma margins ciliate. Lemma apex attenuate. Palea absent or minute.

Flower and Fruit. Anthers 3. Caryopsis oblong, 1 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Brazil, Southern South America. Bolivia, Colombia, Peru. Brazil West Central, Brazil Southeast. Paraguay.

TDWG4. Mato Grosso, Goias, Bahia, Minas Gerais, Rio de Janeiro, Espirito Santo, Sao Paulo Parana, Catarina, Rio Grande do Sul.

Eriochrysis laxa Swallen. *Phytologia*, xiv. 89 (1966).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Brazil. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *A. Chase* 8729, 5 Mar 1925, Brazil: Minas Gerais: Lavras, wet ground near streamlet (US-1256173; IT: MO-925236).

Illustrations (Books): L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineae* (1981–1982) (1211, Fig. 238).

Derivation (Clifford & Bostock 2007): lateral branches lax and flexuose ascending.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 130–150 cm long. Culm-nodes pubescent. Leaves basal and cauline. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 1 mm long. Leaf-blades 30–60 cm long, 2–4 mm wide. Leaf-blade surface pilose, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, closely spaced, in a multilateral false spike, appressed, linear to oblong, 1.5–4 cm long. Central inflorescence axis 16–22 cm long, glabrous. Rhachis fragile at the nodes, subterete. Rhachis internodes linear. Rhachis internode tip clavate. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster, the upper smaller (female). Pedicels present, linear, 1–2 mm long, ciliate, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets oblong, dorsally compressed, truncate or obtuse, 4 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded, base truncate. Spikelet callus hairs tawny, 1.5 mm long, 0.33–0.5 length of spikelet.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma, shiny. Lower glume oblong, 2–4 mm long, 1 length of spikelet, coriaceous, without keels. Lower glume surface flat, scabrous, glabrous. Lower glume margins ciliate. Lower glume hairs 0.5 mm long. Lower glume apex truncate or obtuse.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret lanceolate, 2.5 mm long, hyaline, 0 -veined, without midvein, without lateral veins, ciliate on margins. Fertile lemma lanceolate, 2.5 mm long, hyaline, without keel, 0 -veined, 0–3 -veined, without veins. Lemma margins ciliate. Palea absent or minute.

Flower and Fruit. Anthers 3. Caryopsis oblong, 1 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Brazil, Southern South America. Bolivia, Colombia. Brazil Southeast, Brazil South.

TDWG4. Corrientes, Misiones.

Eriochrysis pallida Munro. *Harv. Gen. S. Afr. Pl. ed. II.* 440 (1868).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *Burke 75*, South Africa (K).

ST: *Zeyher 1793*, South Africa (K).

Illustrations (Books): L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (476, Fig 391), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (165, Fig 94), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (294, Fig 117).

Derivation (Clifford & Bostock 2007): L. pale-colored. Spikelets or grain pale-green.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 40–90 cm long. Culm-internodes thin-walled. Culm-nodes bearded. Ligule a ciliate membrane. Leaf-blades 6–20 cm long, 1–3 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 5–14, borne along a central axis, appressed, linear or oblong, 1–3 cm long. Central inflorescence axis 3–10 cm long. Rhachis fragile at the nodes, subterete, ciliate on margins. Rhachis hairs yellow, 4–6 mm long. Rhachis internodes linear, 2–3 mm long. Rhachis internode tip clavate. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster, the upper smaller (female). Pedicels present, linear, 2–3 mm long, ciliate.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 3.5–5 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded, base truncate. Spikelet callus hairs yellow or dark brown, 1–1.2 length of spikelet.

Glumes. Glumes dissimilar, reaching apex of florets, firmer than fertile lemma, shiny. Lower glume elliptic, 1 length of spikelet, coriaceous, without keels. Lower glume lateral veins obscure. Lower glume surface flat. Lower glume margins ciliate. Lower glume apex obtuse. Upper glume elliptic, coriaceous, 1-keeled. Upper glume primary vein ciliate. Upper glume margins ciliate. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret lanceolate, 1 length of spikelet, hyaline, 2 -veined, ciliate on margins. Fertile lemma ovate, 1.5 mm long, hyaline, without keel, 0 -veined, 0–3 -veined, without veins. Lemma margins ciliate. Palea absent or minute.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa. Guinea, Nigeria. Central African Republic. Ethiopia (inc. Eritrea). Tanzania. Angola, Malawi, Zambia, Zimbabwe. Botswana, Limpopo, Gauteng, Mpumalanga, Swaziland, Kwazulu-Natal, Eastern Cape.

Eriochrysis purpurata (Rendle) Stapf. *Prain, Fl. Trop. Afr.* ix. 92 (1917).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

Basionym or Replaced Name: *Saccharum purpuratum* Rendle, *Trans. Linn. Soc. London, Bot.* 4: 56 (1894)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *no. 8*, Oct., Hab. Milanji, ST: *Buchanan 997*, 1891, Nyasa-land.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. purpureus, purple; -ata, possessing. Inflorescence or spikelets purple.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Culms 15–60 cm long. Culm-internodes thin-walled. Ligule a ciliate membrane. Leaf-blades 6–15 cm long, 1–2 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 4–7, borne along a central axis, appressed, linear or oblong, 1–3 cm long. Central inflorescence axis 3–8 cm long. Rhachis fragile at the nodes, subterete,

ciliate on margins. Rhachis internodes linear, 2–3 mm long. Rhachis internode tip clavate. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster, the upper smaller (female). Pedicels present, linear, 2–3 mm long, ciliate.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 5–7 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded, base truncate. Spikelet callus hairs yellow or dark brown, 0.33–0.66 length of spikelet.

Glumes. Glumes dissimilar, reaching apex of florets, firmer than fertile lemma, dull. Lower glume elliptic, 1 length of spikelet, chartaceous, without keels. Lower glume lateral veins distinct. Lower glume surface flat. Lower glume margins ciliate. Lower glume apex truncate. Upper glume elliptic, chartaceous, 1-keeled. Upper glume margins ciliate. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, 1 length of spikelet, hyaline, 2 -veined, ciliate on margins. Fertile lemma ovate, 1.5 mm long, hyaline, without keel, 0 -veined, 0–3 -veined, without veins. Lemma margins ciliate. Palea absent or minute.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Africa.

Country /Province /State. West-central tropical Africa, East tropical Africa, South tropical Africa. DRC. Tanzania. Angola, Malawi, Zambia, Zimbabwe.

Eriochrysis rangacharii C. E. C. Fischer. *Kew Bull.* 1932, 246. (1932).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Nilgiri Hills, at Pykara, June 1900, Sir A. G. & Lady Bourne s.n. (HT: K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of Kadami Ranga Achariyar (1868–1934) Indian botanist.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 12–30 cm long, 3 -noded. Culm-internodes distally glabrous or pubescent. Culm-nodes bearded. Leaf-sheaths tight, pilose. Ligule a ciliate membrane, obtuse. Leaf-blades flat or involute, 10–21 cm long, 2–5 mm wide, stiff. Leaf-blade surface hirsute, hairy on both sides.

Inflorescence. Inflorescence composed of racemes. Peduncle pilose above. Racemes 3–4, borne along a central axis, appressed, linear to oblong, 2–3 cm long. Central inflorescence axis 3–6 cm long. Rhachis fragile at the nodes, subterete, ciliate on margins. Rhachis hairs red. Rhachis internodes linear, 2.5 mm long. Rhachis internode tip clavate. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster, the upper smaller. Pedicels present, linear, ciliate.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 4–4.5 mm long or 5.5–6.2 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded, base truncate. Spikelet callus hairs red, 2.2 mm long, 0.3–0.5 length of spikelet.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, chartaceous, without keels. Lower glume surface flat, pubescent. Lower glume margins ciliate. Lower glume hairs red. Upper glume elliptic, chartaceous, 1-keeled. Upper glume margins ciliate. Upper glume apex acuminate.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, 4–4.3 mm long, hyaline, ciliate on margins, obtuse or acute. Fertile lemma linear or lanceolate, 2–2.3 mm long, hyaline, without keel, 0 -veined, 0–3 -veined, without veins. Lemma surface with conspicuous apical hairs. Lemma hairs 0.5–1 mm long. Palea absent or minute.

Flower and Fruit. Lodicules 2. Anthers 3, 2.7 mm long.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent. India.

TDWG4. Tamilnadu.

Eriochrysis villosa Swallen. *Phytologia*, xiv. 90 (1966).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Brazil. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: J.R. Swallen 8237, 21 Jan 1946, Brazil: Santa Catarina: Rio Cacador, in banhado (US-1961586).

Illustrations (Books): C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (536).

Derivation (Clifford & Bostock 2007): L. villi, long weak hairs; -osa, abundance. The plant in whole or in part covered with long hairs.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 100–150 cm long. Culm-nodes bearded. Leaves basal and cauline. Leaf-sheaths hirsute. Ligule an eciliate membrane, 1 mm long. Leaf-blades 14–30 cm long, 5–8 mm wide. Leaf-blade surface hirsute.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, closely spaced, in a multilateral false spike, appressed, linear to ovate. Central inflorescence axis 15–22 cm long. Rhachis fragile at the nodes, subterete. Rhachis internodes linear. Rhachis internode tip clavate. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster, the upper smaller (female). Pedicels present, linear, 1–1.5 mm long, ciliate, with tawny hairs, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, acute, 3–4 mm long, 0.8–1 mm wide, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded, base truncate. Spikelet callus hairs tawny, 0.75 length of spikelet.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma, shiny. Lower glume elliptic, 3–4 mm long, 1 length of spikelet, coriaceous, without keels. Lower glume surface flat, villous, hairy above. Lower glume margins ciliate. Lower glume hairs tawny, 2–3 mm long. Lower glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret lanceolate, 4 mm long, hyaline, 0 -veined, without midvein, without lateral veins, ciliate on margins. Fertile lemma lanceolate, 2 mm long, hyaline, without keel, 0 -veined, 0–3 -veined, without veins. Lemma margins ciliate. Palea absent or minute.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Europe (*), South America.

Region. Northern Europe (*).

Country /Province /State. : GB Aliens (Ryves et al). **Brazil.** Brazil South.

Catarina, Rio Grande do Sul.

Eriochrysis warmingiana (Hack.) Kuhl. *Comm. Linh. Electr. Matto Grosso Amaz. Annexo 5, Bot.* xi. 29 (1922).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. **Basionym or Replaced Name:** *Saccharum warmingiana* Hack., *Fl. Bras.* 2(4): 254 (1883)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Brazil, Lagoa Sancta: Warming.

Illustrations (Books): S.A.Rennoize, *Gramineas de Bolivia* (1998) (569, Fig 133), R.Pilger, *Die Natürlichen Pflanzenfamilien* 14e (1940) (117, Fig. 67).

Derivation (Clifford & Bostock 2007): L. -ana, indicating connection. In honor of Johannes Eugenius Blow Warming (1841–1924) Danish botanist.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths persistent and investing base of culm, with compacted dead sheaths. Culms erect, 100–220 cm long. Culm-nodes pubescent. Leaf-sheath oral hairs bearded. Ligule an eciliate membrane. Leaf-blades involute, 30–60 cm long, 2–4 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes numerous, borne along a central axis, ascending, linear, 2.5–4.5 cm long. Central inflorescence axis 15–30 cm long. Rhachis fragile at the nodes, subterete. Rhachis internodes linear. Rhachis internode tip clavate. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster, the upper smaller (female). Pedicels present, linear, puberulous, tip widened.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 4–5 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded, base truncate. Spikelet callus hairs white, 1.5 mm long, 0.5 length of spikelet.

Glumes. Glumes dissimilar, reaching apex of florets, firmer than fertile lemma, shiny. Lower glume lanceolate, 4–5 mm long, 1 length of spikelet, cartilaginous, without keels. Lower glume lateral veins obscure. Lower glume surface flat, glabrous. Lower glume margins ciliate. Lower glume hairs white, 1–1.5 mm long.

Lower glume apex acute. Upper glume lanceolate, cartilaginous, 1-keeled. Upper glume margins ciliate. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, 1 length of spikelet, hyaline, 0 -veined, without midvein, without lateral veins, ciliate on margins. Fertile lemma oblong, 2 mm long, hyaline, without keel, 0 -veined, 0–3 -veined, without veins. Lemma margins ciliate. Palea absent or minute.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Brazil, Southern South America. Bolivia. Brazil West Central, Brazil Southeast. Paraguay.

TDWG4. Mato Grosso.

Eriochrysis x conceptionensis T.J. Killeen. *Ann. Missouri Bot. Gard.*, 77(1): 157 (1990).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From Concepcion, Quflo de Chavey Province, Bolivia.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 60–110 cm long. Culm-nodes bearded. Leaves basal and cauline. Ligule an eciliate membrane. Leaf-blades 6–25 cm long, 3–6 mm wide. Leaf-blade surface hirsute. Leaf-blade apex acute.

Inflorescence. Inflorescence composed of racemes. Racemes borne along a central axis, closely spaced, in a multilateral false spike, appressed, linear to oblong, 1–2 cm long. Central inflorescence axis 10–20 cm long. Rhachis fragile at the nodes, subterete. Rhachis internodes linear. Rhachis internode tip clavate. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster, the upper smaller (female). Pedicels present, linear, tip discoid.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, obtuse, 2–2.5 mm long or 3 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded, base truncate. Spikelet callus hairs dark brown.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma, shiny. Lower glume oblong, 1 length of spikelet, coriaceous, without keels. Lower glume surface flat, pubescent, hairy below. Lower glume margins ciliate. Lower glume hairs dark brown. Lower glume apex obtuse.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, hyaline, ciliate on margins. Fertile lemma lanceolate, 1.2–1.4 mm long, hyaline, without keel, 0 -veined, 0–3 -veined, without veins. Lemma margins ciliate. Palea absent or minute.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America. Bolivia.

Erioneuron avenaceum (H. B. & K.) Tateoka. *Amer. Journ. Bot.* xlviii. 572 (1961).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Mexico. **Basionym or Replaced Name:** *Triodia avenacea* Kunth, *Nov. Gen. Sp. (quarto ed.)* 1: 156, t. 48 (1815)[1816]

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Humboldt & Bonpland s.n.*, Apr, Mexico: Distrito Federal: Chapultepec (P).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (46), S.A.Renvoize, *Gramineas de Bolivia* (1998) (264, Fig 60).

Derivation (Clifford & Bostock 2007): L. -acea, resembling. With inflorescences and/or spikelets similar to those of *Avena*.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Stolons absent. Culms 15–60 cm long. Leaves mostly basal. Ligule a fringe of hairs. Leaf-blades 2–12 cm long, 1–3 mm wide. Leaf-blade surface pilose, sparsely hairy. Leaf-blade margins cartilaginous. Leaf-blade apex abruptly acute, apiculate.

Inflorescence. Inflorescence a panicle. Panicle capitate, oblong, 2–6 cm long. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, linear.

Fertile Spikelets. Spikelets comprising 4–8 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 5–15 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pilose.

Glumes. Glumes persistent, similar, reaching apex of florets or shorter than spikelet, shiny. Lower glume ovate, 4–6 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 4–6 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma ovate, 4–6 mm long, membranous, without keel, 3 -veined, 0–3 -veined. Lemma surface pilose, hairy below. Lemma margins ciliate, hairy all along. Lemma apex lobed, 2 -fid, incised 0.4–0.5 of lemma length, awned, 1 -awned. Principal lemma awn from a sinus, 1–3 mm long overall. Palea 2 -veined. Palea keels ciliate. Palea surface pilose, hairy on back. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, ovoid, laterally compressed, smooth (translucent). Embryo 0.5 length of caryopsis, projecting below grain.

Cleistogenes present, in lower sheaths.

$2n = 16$ (1 ref TROPICOS).

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. **Southwestern USA, South-central USA, Southeastern USA, Mexico.** Arizona. New Mexico, Texas. Central Mexico, Northeast Mexico, Southwest Mexico. **Western South America, Southern South America.** Bolivia. Argentina Northeast, Argentina Northwest.

TDWG4. Jujuy. Distrito Federal, Mexico State, Puebla, Tlaxcala. Aguascalientes, Coahuila, Chihuahua, Durango, Guanajuato, Hidalgo, Neuvo Leon, Queretaro, San Luis Potosi, Tamaulipas, Zacatecas. Jalisco, Oaxaca.

Erioneuron nealleyi (Vasey) Tateoka. *Amer. Journ. Bot.* xlviii. 572 (1961).

Regarded by K as a synonym (*E. avenaceum*).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Triodia nealleyi* Vasey, *U.S.D.A. Div. Bot. Bull.* 12(2): t. 36 (1891)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: IT: *Neally s.n.*, 1887, USA: Texas: Pesidio Co.: Cibolo Canyon, Chenate Mountains (US-908406).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (46).

Derivation (Clifford & Bostock 2007): in honor of Greenleaf Cilley Nealley (1846–96) United States plant collector.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Distribution (TDWG). Continent. North America.

Country /Province /State. **South-central USA, Mexico.** New Mexico, Texas. Northeast Mexico.

Aguascalientes, Coahuila, Chihuahua, Durango, Guanajuato, Hidalgo, Neuvo Leon, Queretaro, San Luis Potosi, Tamaulipas, Zacatecas.

Erioneuron pilosum (Buckl.) Nash. *Small, Fl. S.E. U.S.* 144 (1905).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Uralepis pilosa* Buckley, *Proc. Acad. Nat. Sci. Philadelphia* 14: 94 (1862)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: LT: *Buckley s.n.*, USA: Texas (PH; ILT: P-DU?). LT designated by Hitchcock, *Man. Grass. U.S.* 971 (1935), but without citing a specific sheet in a specific herbarium.

LT: *Wright 781*, USA: western Texas (PH; ILT: US (fragm.)). LT designated by Valdis-Reyna & Hatch, *Sida* 17: 657 (1997).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (46), F.W.Gould, *The Grasses of Texas* (1975) (219, Fig. 113), E.G.Nicora, *Los Generos de Gramineas de America Austral* (1987) (383, Fig. 134), M.N.Correa, *Flora Patagonica Parte III, Gramineae* (1978) (481, Fig 324 as var. *longearistatum*).

Derivation (Clifford & Bostock 2007): *L. pilus*, a hair; -osa, abundance. The whole plant or any of its organs invested with long spreading hairs.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Stolons absent. Culms 10–30 cm long. Leaf-sheaths keeled. Ligule a fringe of hairs, 0.5 mm long. Leaf-blades 2–8(–11) cm long, 1–2 mm wide. Leaf-blade margins cartilaginous. Leaf-blade apex abruptly acute, hardened.

Inflorescence. Inflorescence a panicle, comprising 4–9 fertile spikelets. Panicle capitate, ovate, 2–3 cm long, 1.5–2 cm wide. Spikelets solitary. Fertile spikelets pedicelled. Pedicels present, linear, ciliate.

Fertile Spikelets. Spikelets comprising 7–18 fertile florets, with diminished florets at the apex. Spikelets of 2 or more fertile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets oblong, laterally compressed, 10–16 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pilose.

Glumes. Glumes persistent, similar, shorter than spikelet, shiny. Lower glume ovate, 4.5–6 mm long, 1 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume lateral veins absent. Lower glume apex acuminate. Upper glume ovate, 4.5–6 mm long, 1 length of adjacent fertile lemma, membranous, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume apex acuminate.

Florets. Fertile lemma obovate, 4.5–6 mm long, membranous, without keel, 3 -veined, 0–3 -veined. Lemma surface pilose, hairy below. Lemma margins ciliate, hairy above or below. Lemma apex emarginate, awned, 1 -awned. Principal lemma awn from a sinus, 1–2 mm long overall. Palea 0.5 length of lemma, 2 -veined. Palea keels ciliolate. Palea surface pilose, hairy on back. Apical sterile florets resembling fertile though underdeveloped.

Flower and Fruit. Caryopsis with adherent pericarp, ovoid, laterally compressed, 1.3–1.5 mm long, smooth (translucent). Embryo 0.5 length of caryopsis, projecting below grain.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. Northwest USA, North-central USA, Southwestern USA, South-central USA, Mexico. Colorado. Kansas, Oklahoma. Arizona, California, Nevada, Utah. New Mexico, Texas. Central Mexico, Northeast Mexico, Southwest Mexico. Southern South America. Argentina South.

TDWG4. Catamarca, Jujuy, La Rioja, Mendoza, Salta, Santiago del Estero, San Juan, San Luis, Tucuman. Cordoba, La Pampa. Río Negro. Puebla. Aguascalientes, Coahuila, Neuvo Leon, San Luis Potosi, Tamaulipas, Zacatecas. Oaxaca.

Euclasta clarkei (Hack.) T.A. Cope. *Kew Bull.*, 35(3): 704 (1980).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *Indochloa*).

TYPE from India. **Basionym or Replaced Name:** *Andropogon clarkei* Hack., *Oesterr. Bot. Z.* 41: 49 (1891)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: T: *C.B. Clarke 33780*, no date, India: (IT: US-76222).

Illustrations (Books): N.L.Bor, *The grasses of Burma, Ceylon, India and Pakistan* (1960) (172, Fig 8 as *Indochloa clarkei*).

Derivation (Clifford & Bostock 2007): in honor of Charles Baron Clarke (1832–1906) English-born Indian teacher-botanist.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe ANDROPOGONINAE.

Habit, Vegetative Morphology. Annual. Culms prostrate, 10–45 cm long, rooting from lower nodes. Ligule a ciliate membrane. Leaf-blades 5–7 cm long, 3–5 mm wide.

Inflorescence. Inflorescence composed of racemes. Peduncle flexuous. Racemes 1, single, arcuate, 2.5–5 cm long. Rhachis fragile at the nodes, flattened, ciliate on margins. Rhachis internodes linear. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, linear, flattened, with a translucent median line (also present in internodes), ciliate.

Sterile Spikelets. Basal sterile spikelets well-developed, 4 in number, barren, 4.5–6 mm long, larger than fertile. Basal sterile spikelet glumes glabrous.

Companion sterile spikelets well-developed, containing empty lemmas, oblong, 4.5–6 mm long, longer than fertile, separately deciduous. Companion sterile spikelet glumes herbaceous, distinctly veined, 8–11 -veined, scabrous, glabrous, acute. Companion sterile spikelet lemmas enclosed by glumes, muticous.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 3.5–4 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus pilose, base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, coriaceous, without keels, keel-less except near apex, winged on margins, winged near apex, 5 -veined. Lower glume surface flat, pilose. Lower glume apex obtuse. Upper glume lanceolate, coriaceous, 1-keeled, 3 -veined. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, 3.5 mm long, hyaline, 0 -veined, ciliate on margins. Fertile lemma linear, hyaline, without keel, 1 -veined, 0–3 -veined, one-veined. Lemma apex entire, awned, 1 -awned. Principal lemma awn geniculate, 25 mm long overall, with twisted column. Column of lemma awn glabrous. Palea absent or minute.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. Arabian Peninsula. Oman. Indian Subcontinent. India.

TDWG4. Bihar. Rajasthan.

Euclasta condylotricha (Steud.) Stapf. *Fl. Trop. Afr* ix. 181. (1917).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from Ethiopia. **Basionym or Replaced Name:** *Andropogon condylotrichus* Hochst. ex Steud., *Syn. Pl. Glumac.* 1: 377 (1854)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Schimper 2011*, Ethiopia: Dscheladscheranne (P).

Illustrations (Books): H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962) (295, Fig. 233), G.V.Pope et al., *Flora Zambesiaca* 10 (4(2002):49, t. 18), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (205, Fig 73), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (307, Fig 123), R.McVaugh, *Flora Nova-Galiciana Vol.14 Gramineae* (1983), W.Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (235, Fig 81), G.Harling & C.Persson, *Flora of Ecuador* (2006) (78: 179, Fig. 21 (2006)).

Illustrations (Journals): *Hooker's Icones Plantarum* (t.3086 (1922)), *Ruizia* (13:435 Fig 58d-e (1993)).

Derivation (Clifford & Bostock 2007): Gk. kondylos, knuckle; thrix, hair. Lemma awns abruptly bent about the middle.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe ANDROPOGONINAE.

Habit, Vegetative Morphology. Annual. Culms prostrate, 15–200 cm long, rooting from lower nodes. Ligule a ciliate membrane. Leaf-blades 5–25 cm long, 2–10 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 2–15, digitate, drooping, arcuate, 2–5 cm long. Rhachis fragile at the nodes, flattened, ciliate on margins. Rhachis internodes linear. Rhachis internode tip transverse. Raceme-bases filiform, dichotomously branched, unequal (the longer measured), stiffly setose, hairy in axils. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, linear, flattened, with a translucent median line (also present in internodes), ciliate.

Sterile Spikelets. Basal sterile spikelets well-developed, 2–6 in number (lower raceme), 2–6 in upper racemes, barren, 4–9 mm long, larger than fertile. Basal sterile spikelet glumes pilose.

Companion sterile spikelets well-developed, containing empty lemmas, oblong, 4–9 mm long, longer than fertile, separately deciduous. Companion sterile spikelet glumes herbaceous, distinctly veined, 10–17 -veined, pilose, acute. Companion sterile spikelet lemmas enclosed by glumes, mucous.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 3–4 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus pilose, base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, chartaceous, without keels, keel-less except near apex, 5 -veined. Lower glume lateral veins ribbed. Lower glume surface flat, pilose. Lower glume apex obtuse. Upper glume lanceolate, chartaceous, 1-keeled, 3 -veined. Upper glume apex acute.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, 1.5 mm long, hyaline, 0 -veined, without midvein, without lateral veins. Fertile lemma linear, hyaline, without keel, 1 -veined, 0–3 -veined, one-veined. Lemma apex entire, awned, 1 -awned. Principal lemma awn geniculate, 20–40 mm long overall, with twisted column. Column of lemma awn glabrous. Palea absent or minute.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Africa, Tropical Asia, North America, South America.

Country /Province /State. West tropical Africa, West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Western Indian ocean. Burkina, Ivory Coast, Mali,

Nigeria, Senegal, Sierre Leone, Togo. Congo, Gabon, DRC. Ethiopia (inc. Eritrea), Sudan. Tanzania. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Madagascar. **Indian Subcontinent.** India. **Mexico.** Central Mexico, Northeast Mexico, Gulf (Mexico), Northwest Mexico, Southwest Mexico, Southeast Mexico. **Mesoamerica, Caribbean** (as *Andropogon condylotrichus*), **Northern South America, Western South America.** Costa Rica, Guatemala, Honduras, Nicaragua, Panama. Cuba, Dominican Republic, Haiti, Jamaica. Venezuela. Colombia, Ecuador, Peru.

TDWG4. Madhya Pradesh. Mexico State, Morelos. Guanajuato. Veracruz. Sonora. Colima, Guerrero, Jalisco, Michoacan, Nayarit, Oaxaca. Chiapas.

Eulalia annua B.K. Simon. *Austrobaileya*, 3(1): 84 (1989).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia: Queensland: 7 km N of North Kennedy Road on Peninsular Development Road, Cape York Peninsula, *J.R. Clarkson 4802* (HT: BRI; IT: CANB, K, MBA, NSW, QRS).

Illustrations (Books): D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Derivation (Clifford & Bostock 2007): L. annual. Annuals.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Annual. Butt sheaths glabrous. Culms decumbent, 10–45 cm long. Culm-nodes glabrous. Lateral branches lacking. Ligule a ciliolate membrane, 0.1 mm long. Leaf-blades 3–7 cm long, 1–3 mm wide.

Inflorescence. Inflorescence composed of racemes. Peduncle pubescent above. Racemes 2–3, paired or digitate, 1.5–4 cm long, bearing 7–20 fertile spikelets on each. Rhachis fragile at the nodes, ciliate on margins. Rhachis hairs dark brown. Rhachis internodes linear, 1.8 mm long. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, 1.8 mm long, ciliate, with dark brown hairs.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets linear or lanceolate, dorsally compressed, 2.5–3 mm long, 0.6 mm wide, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus square, 0.3 mm long, pubescent, base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, chartaceous, dark brown, 2-keeled, keeled above, 5 -veined. Lower glume lateral veins obscure. Lower glume surface villous, hairy below. Lower glume hairs dark brown. Lower glume apex truncate. Upper glume elliptic, 1 length of spikelet, 3 -veined. Upper glume surface pilose. Upper glume hairs dark brown. Upper glume muticous.

Florets. Basal sterile florets 1, with vestigial lower floret, barren, without significant palea. Fertile lemma oblong, 0.5 mm long, hyaline, without keel. Lemma apex lobed, 2 -fid, incised 0.25 of lemma length, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 18–20 mm long overall, with twisted column. Column of lemma awn glabrous. Palea absent or minute.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland.

TDWG4. Kimberley. Darwin & Gulf. North.

Eulalia aurea (Bory) Kunth. *Rev. Gram.* i. 160 (1829).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), W.D.Clayton & N.Snow, Key to Pacific Grasses (2010).

TYPE from Reunion. **Basionym or Replaced Name:** *Andropogon aureus* Bory, *Voy.* 1, 367. t. 21 (1804). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Reunion: *Bory* (P holo), K.

Illustrations (Books): H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962) (272, Fig. 204 as *E. geniculata*), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (Pl. 16 as *E. geniculata*), J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (519, Fig. 444), C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952) (315, Pl. 93 as *E. fulva*), J.R.Wheeler et al, *Flora of the Kimberley Region* (1992) (1175, Fig. 332), N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994) (622, Fig 125), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler, *Grasses of New South Wales*, 4th edn (2008) (265),

J.C.Tothill,& J.B.Hacker. *The grasses of southern Queensland* (1983) (244 as *E. fulva*), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Images: D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);.

Derivation (Clifford & Bostock 2007): *L.* golden-yellow. With spikelets or pedicels or other parts invested in golden-yellow hairs.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, mat forming or caespitose. Butt sheaths glabrous or pubescent. Culms 50–150 cm long. Ligule a ciliolate membrane. Leaf-blades 3–15 cm long, 3–6 mm wide. Leaf-blade surface glabrous. Leaf-blade apex acuminate, filiform.

Inflorescence. Inflorescence composed of racemes. Racemes 2–4(–15), digitate, 3–14 cm long. Rhachis fragile at the nodes, subterete, pilose on surface, villous on margins. Rhachis hairs dark brown, 1 mm long. Rhachis internodes linear. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, villous.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 3.5–4.5 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, cartilaginous, dark brown, 2-keeled, keeled above. Lower glume intercarinal veins distinct. Lower glume surface pilose. Lower glume hairs dark brown. Lower glume apex truncate. Upper glume elliptic. Upper glume surface pilose. Upper glume hairs dark brown. Upper glume muticous.

Florets. Basal sterile florets 1, with vestigial lower floret. Fertile lemma cuneate, 1 mm long, hyaline, without keel, 3 -veined, 0–3 -veined. Lemma margins ciliate, hairy above. Lemma apex lobed, 2 -fid, incised 0.3 of lemma length, muticous or awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 0–20 mm long overall, with twisted column. Column of lemma awn hispidulous. Palea absent or minute.

Flower and Fruit. Caryopsis with adherent pericarp, oblong. Embryo 0.5 length of caryopsis. Hilum punctiform.

Distribution (TDWG). **Continent.** Africa, Tropical Asia, Australasia, South America.

Country /Province /State. **West-central tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean.** Rwanda, DRC. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo. Mauritius, Madagascar, Reunion. **Indo-China.** Thailand, Vietnam. **Australia.** Western Australia, Northern Territory, South Australia, Queensland, New South Wales, Victoria. **Marianas.** **Western South America.** Colombia.

TDWG4. Kimberley, Ereman. Darwin & Gulf, Victoria R & Barkly Tableland, Central Australia. NW & Lake Eyre, Southern. North, Central, South East, Inland. Coast, Tablelands, Western Slopes, Western Plains.

Eulalia bicornuta Bor. *Kew Bull.* 1950, 258 (1950).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960).

TYPE from Myanmar. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Burma, Kaukkwe valley: Lace 6051 (K holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L.* bis, twice; cornu, horn; -ata, possessing. Lower glume two-horned.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths persistent and investing base of culm, with fibrous dead sheaths. Culms erect, 50–100 cm long. Ligule an eciliate membrane. Leaf-blades flat or convolute, 10–20 cm long, 2.5 mm wide. Leaf-blade surface pubescent, densely hairy, hairy adaxially. Leaf-blade apex acuminate, filiform.

Inflorescence. Inflorescence composed of racemes. Peduncle glabrous. Racemes 2–3, digitate, 8–10 cm long. Rhachis fragile at the nodes, ciliate on margins. Rhachis internodes clavate, 3 mm long. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, 2.75 mm long, ciliate, hairy all along but hairs longer above, with 1.5 mm long hairs.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 3.5–4 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded, base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic or oblong, 1 length of spikelet, chartaceous, 2-keeled, keeled above, 2 -veined. Lower glume surface concave, pilose, hairy below. Lower glume apex dentate, 2 -fid. Upper glume oblong, 1 length of spikelet, 1-keeled, 3 -veined. Upper glume surface pilose, hairy below. Upper glume apex truncate, awned, 1 -awned, awn 2–3 mm long.

Florets. Basal sterile florets 1, barren, with palea. Lemma of lower sterile floret oblong, 2.5 mm long, hyaline, 0 -veined, without midvein, without lateral veins, obtuse. Fertile lemma oblong, 2.5 mm long, hyaline, without keel, 1 -veined, 0–3 -veined, one-veined. Lemma apex lobed, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 7–9 mm long overall, with twisted column. Column of lemma awn glabrous.

Flower and Fruit. Anthers 3, 2.25 mm long, purple.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indo-China. Laos, Myanmar, Thailand.

Eulalia brevifolia P.C. Keng. *Acta Bot. Yunnanica*, 4(4): 351 (1982).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Yunnan: Kunming, Tie-feng-an, dry mountain slopes, 12 Dec. 1946, T.N. Liou 16857 (HT: PE).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 820).

Derivation (Clifford & Bostock 2007): *L. brevis*, short; folium, leaf. Leaf-blades shorter than those of some other species in the genus or relative to the length of the culm.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial. Cataphylls evident. Culms erect, 50–70 cm long, rooting from lower nodes. Culm-internodes smooth, distally glabrous. Leaf-sheaths glabrous on surface. Ligule an eciliate membrane, 0.5 mm long, obtuse. Leaf-blade base cordate. Leaf-blades lanceolate, 3–8 cm long, 5–7 mm wide, mid-green or glaucous, discolourous with last colour beneath. Leaf-blade surface glabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 5, digitate, 5–7 cm long. Rhachis fragile at the nodes, subterete, ciliate on margins. Rhachis internodes linear, (2–)3–4(–6) mm long. Rhachis internode tip clavate. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, 2 mm long, ciliate.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate or oblong, dorsally compressed, 4–4.5 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus square, bearded, base obtuse, attached obliquely. Spikelet callus hairs 0.33 length of spikelet.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume lanceolate or oblong, 1 length of spikelet, coriaceous, 2-keeled. Lower glume intercarinal veins distinct, 1 in number. Lower glume surface flat, hirsute, hairy below. Lower glume apex obtuse. Upper glume lanceolate, chartaceous, 1-keeled, 3 -veined. Upper glume primary vein ciliate. Upper glume surface pilose. Upper glume margins ciliolate. Upper glume apex obtuse, muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret lanceolate or oblong, hyaline, ciliolate on margins, obtuse. Fertile lemma linear or lanceolate, hyaline, without keel. Lemma margins ciliolate. Lemma apex dentate, 2 -fid, incised 0.5 of lemma length, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 6 mm long overall, with twisted column. Column of lemma awn glabrous. Palea lanceolate. Palea surface pilose, hairy on margins.

Flower and Fruit. Anthers 3, 2.5 mm long.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central.

TDWG4. Yunnan.

Eulalia fastigiata (Nees ex Steud.) Haines. *Bot. Bihar & Orissa*, 1017 (1924).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*) (as *Eulalia*), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from India. **Basionym or Replaced Name:** *Saccharum fastigiatum* Nees ex Steud., *Syn. Pl. Glumac.* 1: 409 (1854)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: India occ., *Wallich 8847*"*Erianthus* nr. 8847 Wall. cat. Ind. or."

Illustrations (Books): H.J.Noltie, *The Grasses of Bhutan* (2000) (773, Fig. 52).

Derivation (Clifford & Bostock 2007): *L. fastigio*, sharpen to a point. Panicle branches or culms held erect.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial. Culms 100–150 cm long. Leaf-sheaths as wide as blade at the collar. Leaf-sheath oral hairs bearded. Ligule a ciliolate membrane. Leaf-blades erect, 30–60 cm long, 5–7 mm wide, stiff, glaucous. Leaf-blade midrib widened. Leaf-blade surface scabrous, rough abaxially. Leaf-blade margins scabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Peduncle pubescent above. Racemes numerous, borne along a central axis, 5–10 cm long. Central inflorescence axis 10 cm long. Rhachis fragile at the nodes, subterete, ciliate on margins. Rhachis hairs white. Rhachis internodes linear. Rhachis internode tip oblique. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, ciliate.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 4–5 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus square, pilose, base obtuse, attached obliquely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, chartaceous, 2-keeled, keeled above. Lower glume intercarinal veins absent or obscure. Lower glume surface concave, villous. Lower glume hairs white. Lower glume apex dentate, 2 -fid. Upper glume lanceolate, chartaceous, with membranous margins, 1-keeled, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume surface pilose, hairy above. Upper glume hairs white. Upper glume apex acute or acuminate, muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret lanceolate, 3.5–4.5 mm long, 0.75 length of spikelet, membranous, eciliate on margins or ciliolate on margins. Fertile lemma oblong, 2–2.5 mm long, hyaline, without keel, 3 -veined, 0–3 -veined. Lemma margins ciliate, hairy above. Lemma apex dentate, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 12.5 mm long overall, with twisted column. Column of lemma awn glabrous. Palea absent or minute.

Flower and Fruit. Anthers 3, 2–2.5 mm long.

N = 9 (2 refs TROPICOS).

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent, Indo-China, Malesia, Papuasias. Assam, Eastern Himalaya, India. Vietnam. New Guinea West Papua (Irian Jaya). New Guinea.

TDWG4. Darjeeling, Bhutan, Sikkim. Assam, Meghalaya, Tripura. West Bengal.

***Eulalia fimbriata* (Hack.) Kuntze. *Rev. Gen.* 775 (1891).**

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from India. **Basionym or Replaced Name:** *Pollinia fimbriata* Hack., *DC. Monog. Phan.* 6: 164 (1889). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: India, Malabar: Stocks (K iso).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. fimbriae*, fringe; -ata, possessing. With fringed glumes or lemmas.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Annual. Butt sheaths glabrous. Culms 30–60 cm long. Culm-internodes smooth. Culm-nodes glabrous. Leaf-sheaths glabrous on surface. Ligule a ciliolate membrane. Leaf-blades 15–25 cm long, 4 mm wide, flaccid. Leaf-blade surface pubescent, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 2–6, paired or digitate, 2.5–7.5 cm long. Rhachis fragile at the nodes, ciliate on margins. Rhachis internodes linear. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, ciliate.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 3 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus pilose, base obtuse, attached transversely. Spikelet callus hairs white.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume lanceolate, 1 length of spikelet, cartilaginous, 2-keeled, keeled above. Lower glume primary vein ciliate. Lower glume surface convex or flat. Lower glume apex dentate, 2 -fid. Upper glume elliptic, 1 length of spikelet. Upper glume margins ciliate. Upper glume apex obtuse, muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, 3 mm long, hyaline, ciliate on margins, obtuse. Fertile lemma oblong, 2.5 mm long, hyaline, without keel. Lemma apex lobed, 2 -fid, incised 0.5 of lemma length, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 13–19 mm long overall, with twisted column. Column of lemma awn glabrous. Palea absent or minute.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent, Indo-China, Malesia. Assam. Myanmar, Thailand. Java, Lesser Sunda Is.

TDWG4. Diu, Daman. Maharashtra.

Eulalia hirtifolia (Hackel) A. Camus. *Ann. Soc. Linn. Lyon, n. s.*, lxxviii. 202 (1922).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960).

TYPE from India. **Basionym or Replaced Name:** *Pollinia hirtifolia* Hack., *Monogr. Phan.* 6: 165 (1889)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: India, Simla: Hugel 758 (W holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. hirtus*, hairy; folium, leaf. Leaf-blades hairy.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial. Butt sheaths glabrous. Culms geniculately ascending, 90–120 cm long. Leaf-sheaths pilose. Ligule a fringe of hairs. Leaf-blades 20–30 cm long, 3–7 mm wide. Leaf-blade surface pilose, hairy on both sides.

Inflorescence. Inflorescence composed of racemes. Racemes 5–7, digitate, 9–10 cm long. Central inflorescence axis 2–3 cm long. Rhachis fragile at the nodes, ciliate on margins. Rhachis hairs purple, 1 mm long. Rhachis internodes linear, 4 mm long. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, 3 mm long, ciliate, with purple hairs, with 1 mm long hairs.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets oblong, dorsally compressed, 4.5–5 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus pubescent, base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, cartilaginous, 2-keeled, keeled above, 4 -veined. Lower glume surface concave. Lower glume margins ciliate. Lower glume hairs purple. Upper glume elliptic, 1 length of spikelet. Upper glume muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret hyaline. Fertile lemma oblong, hyaline, without keel. Lemma apex lobed, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 10–11 mm long overall, with twisted column. Column of lemma awn glabrous. Palea absent or minute.

Flower and Fruit. Anthers 3.

$2n = 40$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent, Indo-China. Myanmar.

TDWG4. Sikkim. Uttah Pradesh. Himachal Pradesh.

Eulalia leptostachys (Pilger) Henrard. *Blumea*, iii. 453 (1940).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from New Guinea. **Basionym or Replaced Name:** *Pollinia leptostachys* Pilg., *Bot. Jahrb. Syst.* 52: 170 (1914)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Schlechter 16982*, Dec 1907, New Guinea: Kaiser-Wilhelmsland, steile Ufer des Minjem (B).

ST: *Hellwig 363*, Oct 1888, New Guinea: Finisterre-Gebirge, zwischen den Steinen des (B).

Illustrations (Books): E.E.Henty, *A Manual of the Grasses of New Guinea* (1969) (94, Pl. 36).

Derivation (Clifford & Bostock 2007): Gk. leptos, narrow; stachys, ear of corn. Inflorescences narrow.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial. Rhizomes elongated, scaly. Culms erect or geniculately ascending, 40–70 cm long. Leaf-sheaths glabrous on surface or pubescent. Leaf-sheath oral hairs ciliate. Ligule a ciliolate membrane, 0.5 mm long. Leaf-blade base with a brief petiole-like connection to sheath. Leaf-blades linear or lanceolate, 6–15 cm long, 5–10 mm wide. Leaf-blade surface glabrous or pubescent. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes. Peduncle pubescent above. Racemes 4–10, digitate, 8–10 cm long. Central inflorescence axis 2–4 cm long. Rhachis fragile at the nodes, pilose on surface. Rhachis hairs tawny. Rhachis internodes linear. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, ciliate.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 3–4 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume oblong, 1 length of spikelet, chartaceous, 2-keeled, keeled above, 2–4 -veined. Lower glume surface villous. Lower glume margins ciliolate. Lower glume hairs tawny, 5–10 mm long. Lower glume apex erose, truncate. Upper glume oblong, 1 length of spikelet, 1-keeled, 1–3 -veined. Upper glume lateral veins absent or obscure. Upper glume surface pilose. Upper glume margins ciliolate. Upper glume hairs tawny. Upper glume apex truncate or obtuse, muticous.

Florets. Basal sterile florets 1, with vestigial lower floret, barren, without significant palea. Fertile lemma oblong, 1 mm long, hyaline, without keel. Lemma margins ciliolate. Lemma apex lobed, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 10–20 mm long overall, with a straight or slightly twisted column. Column of lemma awn 1 mm long, glabrous. Palea absent or minute.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Malesia, Papuaia. New Guinea.

Eulalia leschenaultiana (Decne.) Ohwi. *Bull. Tokyo Sci. Mus.*, No. 18, 2 (1947).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, *Poaceae ms (Flora Malesiana)*, N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from Indonesia. **Basionym or Replaced Name:** *Andropogon leschenaultianus* Decne., *Nouv. Ann. Mus. Hist. Nat.* 3:357 (1834). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Indonesia, Timor: Leschenault.

Illustrations (Books): C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (688), C-C Hsu, *Taiwan Grasses* (1975) (652, Pl. 1465), H.J.Noltie, *The Grasses of Bhutan* (2000) (773, Fig. 52), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 818).

Derivation (Clifford & Bostock 2007): L. -ana, indicating connection. In honor of Jean-Baptiste Louis-Claude-Thiodore, Leschenault de la Tour (1773–1826) French botanist and traveller.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Butt sheaths pubescent, with white hairs. Culms erect, 20–45 cm long, wiry. Culm-nodes glabrous. Leaf-sheaths 2–3.5 cm long, glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a ciliolate membrane. Leaf-blades 3–7 cm long, 2–4 mm wide. Leaf-blade midrib indistinct. Leaf-blade surface glabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Peduncle pilose above. Racemes 2–4, digitate, 3–9 cm long. Rhachis fragile at the nodes, subterete, pilose on surface, villous on margins. Rhachis hairs dark brown. Rhachis internodes linear, 2–2.5 mm long. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, villous, with dark brown hairs.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets oblong, dorsally compressed, 3.5 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus pubescent, base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, cartilaginous, 2-keeled, keeled above, 2 -veined. Lower glume surface pilose. Lower glume margins ciliate. Lower glume apex truncate. Upper glume lanceolate, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume surface pilose, hairy above. Upper glume apex truncate, muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret linear, hyaline, 2 -veined, ciliate on margins. Fertile lemma lanceolate, 1.4 mm long, hyaline, without keel. Lemma

margins ciliolate. Lemma apex lobed, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 12.5 mm long overall, with twisted column. Column of lemma awn 6 mm long, hispidulous. Palea 0.5 mm long, hyaline.

Flower and Fruit. Anthers 3, 2 mm long, brown or red. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. China, Eastern Asia. China Southeast. Taiwan. **Indian Subcontinent, Indo-China, Malesia.** Assam, Eastern Himalaya. Laos, Thailand, Vietnam. Borneo, Lesser Sunda Is, Malaya, Philippines, Sulawesi.

TDWG4. Fujian, Guangdong, Jiangxi. Bihar, Karnataka. Uttah Pradesh, West Bengal.

Eulalia mackinlayi (F. Muell. ex Benth.) Kuntze. *Rev. Gen.* 775 (1891).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Australia. **Basionym or Replaced Name:** *Pollinia mackinlayi* F. Muell. ex Benth., *Fl. Austral.* 7: 527 (1878). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Australia, Arnhem Land: *Mackinlay* (HT: MEL; IST: BRI).

Illustrations (Books): D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002).

Derivation (Clifford & Bostock 2007): in honor of John McKinlay (1819–72) Scots-born Australian explorer.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Butt sheaths villous or woolly, with dark brown hairs, persistent and investing base of culm, with compacted dead sheaths or fibrous dead sheaths. Culms erect, 150–200 cm long. Leaves mostly basal. Ligule a ciliate membrane, 1–1.5 mm long. Leaf-blades involute, 2–5 mm wide. Leaf-blade apex attenuate.

Inflorescence. Inflorescence composed of racemes. Racemes 2–4, digitate, 10–16 cm long. Rhachis fragile at the nodes, ciliate on margins. Rhachis hairs lengthening towards internode tip, white, 3–4 mm long. Rhachis internodes linear, 4.5 mm long. Rhachis internode tip transverse, cupuliform. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, 4–5 mm long, ciliate, hairy all along but hairs longer above, with white hairs, with 3–4 mm long hairs.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets oblong, dorsally compressed, 6–8 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus 0.5 mm long, pubescent, base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume oblong, 1 length of spikelet, coriaceous, dark brown, 2-keeled. Lower glume surface concave, hirsute, hairy below (mainly near keels). Lower glume margins ciliate (below). Lower glume hairs white, 3–4 mm long. Lower glume apex dentate, 2 -fid. Upper glume lanceolate, 1 length of spikelet, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume surface pilose. Upper glume muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret linear, 1 length of spikelet, ciliolate on margins, acuminate. Fertile lemma oblong, 1 mm long, hyaline, without keel. Lemma apex entire, acute, awned, 1 -awned. Principal lemma awn apical, bigeniculate, 20–25 mm long overall, with twisted column, limb puberulous. Column of lemma awn glabrous. Palea absent or minute.

Flower and Fruit. Anthers 3, 3 mm long.

Distribution (TDWG). Continent. Australasia.

Country /Province /State. Australia. Western Australia, Northern Territory, Queensland.

TDWG4. Kimberley. Darwin & Gulf. North.

Eulalia madkotiensis Kandwal, Gupta & Srivast. *Kew Bull.* 62: 519 (2007).

TYPE from India. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Uttaranchal, Pithoragarh District, Madcot, towards Jauljibi, 2 Aug 2004.

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial. Culms erect, 30–50 cm long. Leaf-sheaths pubescent. Ligule an eciliate membrane. Leaf-blades filiform, 25–50 cm long, 2 mm wide. Leaf-blade surface pubescent. Leaf-blade apex attenuate.

Inflorescence. Inflorescence composed of racemes. Racemes 5–9, digitate, erect, 5–9 cm long. Rhachis fragile at the nodes. Rhachis internodes linear. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 3.2 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, chartaceous, without keels, 2 -veined. Lower glume surface convex, pilose, hairy below. Lower glume hairs 1.5 mm long. Lower glume apex dentate, 2 -fid, awned, 2 -awned, awn 7–9 mm long. Upper glume elliptic, 1 length of spikelet, 1-keeled. Upper glume awned, 1 -awned, awn 12 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret lanceolate, 3 mm long, hyaline, ciliate on margins, fringed above, acute. Fertile lemma elliptic, 3 mm long, hyaline, without keel. Lemma apex lobed, 2 -fid, with lobes 1 mm long, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 25 mm long overall, with twisted column. Column of lemma awn 3 mm long, glabrous. Palea ovate, 2 mm long.

Flower and Fruit. Lodicules 2, cuneate, truncate. Anthers 3, 2 mm long.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent. India.
Uttaranchal.

Eulalia manipurensis Bor. *Grasses Burma, Ceyl., Ind. & Pakist.* 156 (1960).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from Myanmar. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Myanmar: Manipur State: Palel, in wet grassland, 720 m, *N.L. Bor 17736* (HT: K).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (fig. 809).

Derivation (Clifford & Bostock 2007): L. -ensis, denoting origin. From Manipur State, India.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial. Culms 80–100 cm long. Ligule a ciliate membrane. Leaf-blades 20–30 cm long, 2–6 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 7–25, digitate, 6–12 cm long. Rhachis fragile at the nodes, ciliate on margins. Rhachis internodes linear, 2.5 mm long. Rhachis internode tip transverse, cupuliform. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, 2.5 mm long, ciliate, tip cupuliform.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 2.5 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus square, pilose, base obtuse, inserted.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma, shiny. Lower glume elliptic, 1 length of spikelet, coriaceous, dark brown, 2-keeled, keeled above. Lower glume primary vein ciliate. Lower glume surface flat, glabrous. Lower glume apex obtuse. Upper glume elliptic, 1 length of spikelet, coriaceous, dark brown, 1-keeled. Upper glume surface puberulous. Upper glume muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret elliptic, 1 length of spikelet, hyaline, 2 -veined, pilose, hairy at apex, obtuse. Fertile lemma elliptic, 1.5 mm long, hyaline, without keel, 0 -veined, 0–3 -veined, without veins. Lemma apex erose, truncate, muticous. Palea absent or minute.

Flower and Fruit. Anthers 3, 2 mm long.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. China. China South Central. **Indian Subcontinent, Indo-China.** Assam, Bangladesh. Myanmar.

TDWG4. Yunnan. Manipur.

Eulalia maritima (Merrill) A. Camus. *Ann. Soc. Linn. Lyon, n. s.*, lxviii. 204 (1922).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Philippines. **Basionym or Replaced Name:** *Pollinia maritima* Merrill, *Philipp. Journ. Sci.* 1 Suppl. 326 (1906). T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Philippine Is., Balabac: Merrill 5277 (K iso).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. belonging to the sea. Growing by the seaside.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial. Rhizomes short. Culms erect or geniculately ascending, 50–80 cm long. Culm-internodes distally glabrous. Leaf-sheaths loose, longer than adjacent culm internode, glabrous on surface. Ligule a ciliolate membrane. Leaf-blades involute, 5–7 cm long, 4–5 mm wide, stiff. Leaf-blade surface smooth, glabrous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 3–5, digitate, 5–7 cm long. Rhachis fragile at the nodes, ciliate on margins. Rhachis hairs tawny. Rhachis internodes linear. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, 3 mm long, ciliate, with tawny hairs.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets oblong, dorsally compressed, 3.5 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded, base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume oblong, 1 length of spikelet, chartaceous, 2-keeled, keeled above. Lower glume surface flat or concave, pilose, hairy below. Lower glume margins ciliate. Lower glume hairs tawny. Upper glume obovate, 1 length of spikelet. Upper glume surface pilose. Upper glume margins ciliate. Upper glume apex dentate, 3 -fid, truncate, muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Fertile lemma linear, 1 mm long, hyaline, without keel. Lemma apex lobed, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, curved, 6 mm long overall. Palea absent or minute.

Flower and Fruit. Anthers 3, 3 mm long.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Malesia. Philippines.

Eulalia micranthera Keng & S.L. Chen. *Fl. Hainan.* 4: 539 (1977).

Accepted by: S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China: Hainan:.,

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. Hainan.

Eulalia milsumii Ridley. *Journ. Fed. Mal. States Mus.* x. 251 (1922).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online.

TYPE from Malaya. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Malaya, Bukit Lompat Bayan: Ridley (K iso).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of John Noel Milsum (1880-) English-born Malayan agriculturalist.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 25–50 cm long, wiry. Culm-nodes pubescent. Leaves cauline. Leaf-sheaths 3 cm long, outer margin hairy. Ligule a ciliolate membrane. Leaf-blades involute, 4–8 cm long, 1–2.5 mm wide. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes, embraced at base by subtending leaf. Peduncle pilose above. Racemes 3–4, digitate, 4–6 cm long. Rhachis fragile at the nodes, subterete, pilose on surface, villous on margins. Rhachis hairs 1 mm long. Rhachis internodes linear, 3 mm long. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, 3 mm long, villous, with 1 mm long hairs.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate or oblong, dorsally compressed, 3 mm long, falling entire,

deciduous from the base or with accessory branch structures. Spikelet callus pilose, base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, cartilaginous, 2-keeled, keeled above, 6 -veined. Lower glume surface flat or concave, pilose. Lower glume apex dentate, 2 -fid, awned, 2 -awned, awn 1.8–2.9 mm long. Upper glume lanceolate, 1-keeled. Upper glume surface pubescent. Upper glume apex emarginate, awned, 1 -awned.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret linear, hyaline, ciliate on margins, fringed above. Fertile lemma lanceolate, 2.6 mm long, hyaline, without keel, 3 -veined, 0–3 -veined. Lemma margins ciliolate. Lemma apex lobed, 2 -fid, incised 0.5 of lemma length, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 11 mm long overall, with twisted column. Column of lemma awn 3 mm long, hispidulous. Palea oblong, 1 mm long, hyaline.

Flower and Fruit. Anthers 3, 1.6 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indo-China, Malesia. Laos. Malaya.

Eulalia mollis (Griseb.) Kuntze. *Rev. Gen.* 775 (1891).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from India. **Basionym or Replaced Name:** *Erianthus mollis* Griseb., *Geogr. Verbr. Pfl. Westind.* 3: 92 (1868)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: ST: *Thomson* 3, ST: *Strachey s.n.*, India: Kumaon pr. Almora.

Illustrations (Books): H.J.Noltie, *The Grasses of Bhutan* (2000) (773, Fig. 52).

Derivation (Clifford & Bostock 2007): L. soft. Softly hairy usually of leaf-blades.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial. Rhizomes elongated. Butt sheaths glabrous. Culms 10–30 cm long. Leaf-sheaths outer margin hairy. Ligule a fringe of hairs. Leaf-blades 2–15 cm long, 2–4 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 3–5, digitate, 2–6 cm long. Central inflorescence axis 0–1 cm long. Rhachis fragile at the nodes, villous on margins. Rhachis hairs white, 3–5 mm long. Rhachis internodes linear, 5 mm long. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, 5 mm long, villous, with white hairs, with 3–5 mm long hairs.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 3–4 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus square, 0.5 mm long, pubescent, base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, cartilaginous, 2-keeled, keeled above. Lower glume surface concave, villous. Lower glume hairs white, 3 mm long. Upper glume elliptic, 1 length of spikelet. Upper glume surface villous. Upper glume muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret hyaline. Fertile lemma oblong, hyaline, without keel. Lemma apex lobed, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 10–13 mm long overall, with twisted column. Column of lemma awn glabrous. Palea absent or minute.

Flower and Fruit. Anthers 3.

N = 9 (2 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. China. Tibet. **Indian Subcontinent.** Eastern Himalaya, India, Nepal.

TDWG4. Darjeeling, Bhutan, Sikkim. Madhya Pradesh, Uttah Pradesh.

Eulalia monostachya (Bal.) A. Camus. *Lecomte, Fl. Gen. Indo-Chine*, vii. 254 (1922).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Indochina. **Basionym or Replaced Name:** *Pollinia monostachya* Balansa, *J. Bot. (Morot)* 4: 81 (1890)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Indochina, Annam, Tourane: Balansa.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. monos, one; stachys, ear of corn. Inflorescence a single spike or raceme.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths pubescent or pilose. Culms 70–90 cm long. Ligule a fringe of hairs. Leaf-blades involute, 6–15 cm long, 2–4 mm wide. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Peduncle pubescent above. Racemes 1, single, flexuous, 10–12 cm long. Rhachis fragile at the nodes, flattened, villous on surface. Rhachis hairs dark brown. Rhachis internodes linear, 3–3.5 mm long. Rhachis internode tip oblique. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, 2.25–2.5 mm long, villous.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 4.5 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus oblong, 1 mm long, pubescent, base obtuse, attached obliquely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, coriaceous, much thinner above, dark brown, 2-keeled, keeled above. Lower glume surface villous, hairy below. Lower glume hairs dark brown. Lower glume apex truncate. Upper glume elliptic, 1 length of spikelet, coriaceous, much thinner above, dark brown, 1-keeled. Upper glume surface pubescent, hairy below. Upper glume margins ciliate. Upper glume apex truncate, muticous.

Florets. Basal sterile florets 1, with vestigial lower floret. Fertile lemma orbicular, 1 mm long, membranous, without keel. Lemma apex lobed, 2 -fid, incised 0.33–0.5 of lemma length, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 15–20 mm long overall, with twisted column, limb pubescent (limb). Column of lemma awn glabrous. Palea absent or minute.

Flower and Fruit. Anthers 3, 3–4 mm long.

Distribution (TDWG), Continent. Tropical Asia.

Country /Province /State. Indo-China. Cambodia, Laos, Thailand, Vietnam.

Eulalia pallens (Hack.) Kuntze. *Rev. Gen.* 775 (1891).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L. Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from India. **Basionym or Replaced Name:** *Pollinia pallens* Hack., *Monogr. Phan.* 6: 156 (1889)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: India: Hooker (K iso).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 821).

Derivation (Clifford & Bostock 2007): L. pale. Inflorescences pale.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous. Culms erect, 60–90 cm long. Leaf-sheaths glabrous on surface. Ligule a ciliolate membrane. Leaf-blades revolute, 15–25 cm long, 1.2–2.5 mm wide. Leaf-blade surface pubescent. Leaf-blade margins scabrous. Leaf-blade apex acuminate, filiform.

Inflorescence. Inflorescence composed of racemes. Racemes 5, digitate, 5–10 cm long. Rhachis fragile at the nodes, subterete, pilose on surface, villous on margins. Rhachis internodes linear. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, villous.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 3–4 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, cartilaginous, 2-keeled, keeled above, 2 -veined. Lower glume surface pilose. Lower glume apex dentate, 2 -fid. Upper glume lanceolate, 2-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume surface pilose. Upper glume margins ciliate. Upper glume awned, 1 -awned.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret linear, 2.5–3 mm long, hyaline, ciliate on margins. Fertile lemma lanceolate, 2.2–3 mm long, hyaline, without keel. Lemma margins ciliolate. Lemma apex lobed, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 6–10 mm long overall, with twisted column. Column of lemma awn hispidulous. Palea ovate or orbicular, 2 mm long, hyaline.

Flower and Fruit. Anthers 3, 2–2.5 mm long. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. China. China South Central, China Southeast. **Indian Subcontinent, Indo-China.** Assam, India, Myanmar.

TDWG4. Guangxi, Guizhou, Yunnan, Assam, Meghalaya.

Eulalia phaeothrix (Hack.) Kuntze. *Rev. Gen.* 775 (1891).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from India & Sri Lanka. **Basionym or Replaced Name:** *Pollinia phaeothrix* Hack., *Monogr. Phan.* 6: 168 (1889)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: India, Nilgiri Hills: Perrotet 1317 ; India, Nilgiri Hills: Perrotet 1333 ; India: Wight 1690 ; Sri Lanka, Nuwara Eliya: Thwaites 959 (K iso).

Illustrations (Books): K.M.Matthew, *Flora Palni Hills* (1996) (829, Pl 829), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 817).

Derivation (Clifford & Bostock 2007): Gk. phaeos, grey; thrix, hair. Spikelets invested with grey hairs.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Butt sheaths pubescent or woolly, with dark brown hairs. Culms erect, 30–80 cm long. Leaves mostly basal. Ligule a ciliolate membrane. Leaf-blades 18–30 cm long, 1–4 mm wide. Leaf-blade surface glabrous or hirsute.

Inflorescence. Inflorescence composed of racemes. Peduncle pubescent above. Racemes (1–)2–6(–8), digitate, 4–11 cm long. Rhachis fragile at the nodes, ciliate on margins. Rhachis internodes linear. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, ciliate.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 3.5–5 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded, base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume oblong, 1 length of spikelet, chartaceous, dark brown, 2-keeled, keeled above. Lower glume surface pilose. Lower glume hairs red. Lower glume apex truncate or obtuse. Upper glume oblong, 1 length of spikelet, 1-keeled, 1 -veined. Upper glume primary vein ciliate. Upper glume lateral veins absent. Upper glume surface glabrous. Upper glume margins ciliate. Upper glume muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, 1 length of spikelet, 0 -veined, without midvein, without lateral veins, pilose, obtuse. Fertile lemma hyaline, without keel. Lemma apex lobed, 2 -fid, incised 0.5 of lemma length, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 10–15 mm long overall, with twisted column. Column of lemma awn glabrous. Palea absent or minute.

Flower and Fruit. Anthers 3.

$2n = 20$ (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. China. China South Central, Hainan. **Indian Subcontinent, Indo-China.** Assam, India, Sri Lanka, Laos, Myanmar, Thailand, Vietnam.

TDWG4. Sichuan, Yunnan, Andhra Pradesh, Kerala, Tamilnadu.

Eulalia polyneura (Pilger) Stapf. *Prain, Fl. Trop. Afr.* ix. 99 (1917).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Kenya. **Basionym or Replaced Name:** *Pollinia polyneura* Pilg., *Bot. Jahrb. Syst.* 39: 597 (1907)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: British East Africa: Massai Island, *Forestry Dept. Nairobi* 19.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): Gk. polys, several; neuron, nerve. The glumes and lemmas are many-nerved.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 50–100 cm long. Ligule a ciliate membrane. Leaf-blades flat or involute, 10–30 cm long, 1–4 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 1–5, single or paired or digitate, 7–12 cm long. Rhachis fragile at the nodes, villous on margins. Rhachis hairs white. Rhachis internodes linear. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, villous.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 6–8 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, cartilaginous, dark brown, 2-keeled, keeled above. Lower glume intercarinal veins distinct. Lower glume surface convex or flat, pilose. Lower glume hairs white. Lower glume apex truncate. Upper glume elliptic, 1 length of spikelet. Upper glume surface pilose. Upper glume muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret 5–6 mm long, hyaline. Fertile lemma oblong, 3 mm long, hyaline, without keel, 3 -veined, 0–3 -veined. Lemma apex lobed, 2 -fid, incised 0.33–0.5 of lemma length, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 10–15 mm long overall, with twisted column. Column of lemma awn glabrous. Palea absent or minute.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Africa.

Country /Province /State. Northeast tropical Africa, East tropical Africa, South tropical Africa. Ethiopia (inc. Eritrea). Kenya, Tanzania. Mozambique, Zambia.

Eulalia pruinosa B.S.Sun & M.Y.Wang. *J. Yunnan Univ.* 21:94 (1999).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: China, Yunnan, Chengjiang: Yun-da Exped. L-79537 (YUNU holo).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. pruina*, hoar frost; *-osa*, abundance. Leaf-blades are covered with short white hairs.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths pubescent or pilose. Culms 50–180 cm long, 3 mm diam. Culm-internodes distally glabrous. Leaf-sheaths subequal to internodes, smooth, glabrous on surface. Leaf-sheath oral hairs bearded. Ligule a ciliate membrane, 1 mm long. Leaf-blades linear or lanceolate, 10–20 cm long, 8–10 mm wide, mid-green and glaucous, discolourous with last colour beneath. Leaf-blade surface pubescent, densely hairy, hairy on both sides. Leaf-blade apex acute.

Inflorescence. Inflorescence composed of racemes. Racemes 5–7, digitate, 11–17 cm long. Rhachis fragile at the nodes, subterete, ciliate on margins. Rhachis hairs white or purple. Rhachis internodes linear, 0.75 length of fertile spikelet. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, 0.75 length of fertile spikelet, ciliate.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 4.5 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, chartaceous, 2-keeled. Lower glume primary vein scabrous (above). Lower glume lateral veins transversely connected at apex, intercarinal veins distinct, intercarinal veins 2 in number. Lower glume surface concave, villous, hairy below. Lower glume margins ciliate (above). Lower glume apex emarginate or truncate. Upper glume elliptic. Upper glume muticous.

Florets. Basal sterile florets 1, with vestigial lower floret. Fertile lemma ovate, 1 mm long, hyaline, without keel. Lemma apex dentate, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 9–13 mm long overall, with twisted column. Column of lemma awn glabrous. Palea absent or minute.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central.

TDWG4. Yunnan.

Eulalia quadrinervis (Hack.) Kuntze. *Rev. Gen.* 775 (1891).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*), N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960), T.Koyama, *Grasses of Japan and its neighboring regions* (1987).

TYPE from China & India. **Basionym or Replaced Name:** *Pollinia quadrinervis* Hack., *Monogr. Phan.* 6: 158 (1889)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China, Cap Syng Moon: Meyen ; China, Canton: Sampson (K isosyn) ; China, Macao: Vachell (K isosyn) ; India, Sikkim: Anderson 1365.

Illustrations (Books): T.Koyama, *Grasses of Japan and its neighbouring regions* (1987) (422, Fig. 165), C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (690), C-C Hsu, *Taiwan Grasses* (1975), H.J.Noltie, *The Grasses of Bhutan* (2000) (773, Fig. 52), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 819).

Derivation (Clifford & Bostock 2007): L. quatuor, four; nervus, nerve. Lateral nerves of the leaf-blade mostly four.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous. Culms 50–100 cm long. Leaf-sheaths glabrous on surface or pilose. Ligule a ciliolate membrane. Leaf-blades 10–20 cm long, 2–3 mm wide. Leaf-blade surface scaberulous, rough adaxially, pilose, sparsely hairy, hairy on both sides. Leaf-blade apex acuminate, filiform.

Inflorescence. Inflorescence composed of racemes. Peduncle glabrous or pubescent above. Racemes 3–6, digitate, 6–12 cm long. Rhachis fragile at the nodes, subterete, pilose on surface, villous on margins. Rhachis hairs yellow. Rhachis internodes linear, 3 mm long. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, 3 mm long, villous, with yellow hairs.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 5 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, cartilaginous, 2-keeled, keeled above, 4 -veined. Lower glume surface flat, pilose, hairy below. Lower glume apex acuminate. Upper glume lanceolate, 1-keeled, 3 -veined. Upper glume surface pilose, hairy below. Upper glume apex dentate, 2 -fid, mucronate.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret linear, 4 mm long, hyaline, ciliate on margins. Fertile lemma lanceolate, 3 mm long, hyaline, without keel. Lemma margins ciliolate. Lemma apex lobed, 2 -fid, incised 0.5 of lemma length, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 30 mm long overall, with twisted column. Column of lemma awn hispidulous. Palea hyaline.

Flower and Fruit. Anthers 3. Caryopsis with adherent pericarp.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. China, Eastern Asia. China South Central, China Southeast. Japan, Korea, Nansei-Shoto, Ogosawara-shoto, Taiwan. Japan Honshu, or Shikoku, or Kyushu. **Indian Subcontinent, Indo-China, Malesia.** Assam, Eastern Himalaya, India, Nepal. Myanmar, Thailand, Vietnam. Java, Philippines, Sumatra.

TDWG4. Anhui, Fujian, Guangdong, Henan, Zhejiang. Sichuan, Yunnan. Bhutan, Sikkim. Assam, Manipur, Meghalaya. Kerala. Tamilnadu, Uttah Pradesh. Himachal Pradesh.

Eulalia ridleyi (Hack.) A. Camus. *Ann. Soc. Linn. Lyon, ser. 2*, 68: 204 (1921) [1922].

More checking of status required.

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*).

TYPE from Malaya. **Basionym or Replaced Name:** *Pollinia ridleyi* Hack., *Oesterr. Bot. Z.* 11(1): 7 (1891)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Malaya, Pahang: Ridley 7.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): In honor of Henry Nicholas Ridley (1855–1956) English-born Malayan botanist.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial. Stolons present. Culms 20–45 cm long, rooting from lower nodes. Culm-nodes glabrous. Ligule an eciliate membrane, 0.5–1 mm long. Leaf-blades involute, 3–7 cm long, 1–3 mm wide.

Inflorescence. Inflorescence composed of racemes. Racemes 3–6, digitate, 4–6 cm long. Rhachis fragile at the nodes, angular, ciliate on margins. Rhachis internodes linear, 2.5–3 mm long. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, 2.5–3 mm long, ciliate.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets cuneate, dorsally compressed, 3.5–4 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume oblong, 1 length of spikelet, cartilaginous, dark brown, without keels, 6–9 -veined. Lower glume surface flat, pilose. Lower glume hairs dark brown. Lower glume apex truncate. Upper glume elliptic, dark brown, without keels, 5–7 -veined. Upper glume surface pilose. Upper glume hairs dark brown. Upper glume apex truncate, muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret 0.4 mm long, 0.1–0.2 length of spikelet, hyaline, 0 -veined, without midvein, without lateral veins. Fertile lemma linear, 1.2 mm long, hyaline, without keel, 1 -veined, 0–3 -veined, one-veined. Lemma apex entire, awned, 1 -awned. Principal lemma awn apical, geniculate, 5.6 mm long overall, with twisted column. Column of lemma awn glabrous. Palea absent or minute.

Flower and Fruit. Anthers 3, 1.8 mm long.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Malesia. Malaya.

Eulalia shrirangii Salunkhe & Potdar. *Kew Bull.* 59 (4): 625 (-627; fig. 1) (2005).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from India. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: India, Maharashtra, Kas Plateau: Salunkhe 8170 (CAL holo, BSI, K, SUK).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Annual, caespitose. Culms erect or geniculately ascending, slender, 7–15 cm long. Culm-nodes glabrous. Leaf-sheaths 1–5 cm long, glabrous on surface. Leaf-sheath oral hairs ciliate. Ligule a ciliolate membrane, 1 mm long. Leaf-blades 1–3.5 cm long, 1–2.5 mm wide. Leaf-blade surface glabrous or pilose.

Inflorescence. Inflorescence composed of racemes. Racemes 1–2, single or paired. Rhachis fragile at the nodes, angular, ciliate on margins. Rhachis internodes linear. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, 1.5–2.2 mm long, ciliate.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 2–2.7 mm long, 0.5–0.6 mm wide, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded, base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 2–2.7 mm long, 1 length of spikelet, chartaceous, 2-keeled, 2 -veined. Lower glume primary vein ciliate. Lower glume surface concave. Lower glume apex truncate. Upper glume elliptic or ovate, 1 length of spikelet, 1 -veined. Upper glume lateral veins absent. Upper glume surface with a dorsal tuft of hair. Upper glume margins ciliate. Upper glume apex truncate, muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret elliptic, 1.5–2 mm long, hyaline, 0 -veined, without midvein, without lateral veins, pilose, hairy at apex, truncate. Fertile lemma obovate, 1.5–2 mm long, hyaline, without keel, 1–3 -veined, 0–3 -veined, one-veined or several-veined. Lemma apex lobed, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 10–15 mm long overall, with twisted column. Column of lemma awn glabrous. Palea ovate, 0.4–0.5 mm long, hyaline, 0 -veined. Palea apex obtuse.

Flower and Fruit. Lodicules 2, cuneate. Anthers 3, 1.5–2 mm long. Caryopsis with adherent pericarp, obovoid, 1–1.5 mm long.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent. India. Maharashtra.

Eulalia siamensis Bor. *Kew Bull.* 1954, 499 (1954).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from Thailand. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Thailand: northern hills, tufts in open oak scrub forests, 500–1500 m, (HT: K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From Siam, now Thailand.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths woolly, with yellow hairs, persistent and investing base of culm. Culms erect, 100–200 cm long. Culm-internodes solid. Ligule an eciliate membrane. Leaf-blades 50–100 cm long, 5–10 mm wide. Leaf-blade surface pilose, hairy adaxially, with tubercle-based hairs. Leaf-blade margins smooth or scaberulous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Peduncle hirsute above. Racemes 5–7, digitate, 10–20 cm long. Rhachis fragile at the nodes, pilose on surface, ciliate on margins. Rhachis hairs purple, 4 mm long. Rhachis internodes linear. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, ciliate.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 6.5 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded, base obtuse, attached transversely.

Glumes. Glumes dissimilar, reaching apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, chartaceous, 2-keeled, keeled above, 2 -veined. Lower glume surface flat or concave, pilose. Lower glume hairs purple. Lower glume apex dentate, 2 -fid. Upper glume oblong, 1 length of spikelet, yellow, 1-keeled, keeled above, 3 -veined. Upper glume primary vein scaberulous. Upper glume surface pilose, hairy below. Upper glume muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, 5 mm long, hyaline, 0 -veined, without midvein, without lateral veins, ciliate on margins, obtuse. Fertile lemma oblong, 3.5 mm long, hyaline, without keel, 1 -veined, 0–3 -veined, one-veined. Lemma apex lobed, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 35 mm long overall, with twisted column. Column of lemma awn 18 mm long, glabrous.

Flower and Fruit. Anthers 3, 4.5 mm long.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. China. China South Central. **Indo-China.** Laos, Myanmar, Thailand.

TDWG4. Yunnan.

Eulalia smitinandiana Bor. *Kew Bull.* 1956, 256 (1956).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Thailand. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Tem Smithinand 2053*, 20 Oct 1954, Thailand: Loei, Phu Krading, c. 1300 m (K).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. -ana, indicating connection. In honor of Tem Smitinand (1920-) Thai botanist.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 50–100 cm long. Lateral branches lacking. Ligule an eciliate membrane. Leaf-blades convolute, 15–30 cm long, 4–5 mm wide. Leaf-blade surface glabrous. Leaf-blade margins scaberulous. Leaf-blade apex acuminate.

Inflorescence. Inflorescence composed of racemes. Racemes 2–3, digitate, 8 cm long. Rhachis fragile at the nodes, ciliate on margins. Rhachis internodes linear, 4 mm long. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, 3.5 mm long, ciliate.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 5 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded, base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic or oblong, 1 length of spikelet, chartaceous, 2-keeled, keeled above, 6 -veined. Lower glume primary vein scaberulous. Lower glume surface concave, glabrous. Lower glume apex dentate, 2 -fid, awned, 2 -awned, awn

4–5 mm long. Upper glume oblong, 1 length of spikelet, 1-keeled, keeled above, 3 -veined. Upper glume margins ciliate. Upper glume apex dentate, 2 -fid, awned, 1 -awned, awn 9 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, 3.5 mm long, hyaline, 0 -veined, without midvein, without lateral veins, ciliate on margins, obtuse. Fertile lemma oblong, 4.5 mm long, hyaline, without keel, 1 -veined, 0–3 -veined, one-veined. Lemma apex lobed, 2 -fid, incised 0.5 of lemma length, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 20–25 mm long overall, with twisted column. Column of lemma awn 12–15 mm long, glabrous. Palea 2 mm long.

Flower and Fruit. Anthers 3, 2.5 mm long.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indo-China. Thailand.

Eulalia speciosa (Deb.) Kuntze. *Rev. Gen.* 775 (1891).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (& as *E. birmanica*), T.Koyama, *Grasses of Japan and its neighboring regions* (1987).

TYPE from China. **Basionym or Replaced Name:** *Erianthus speciosus* Debeaux, *Actes Soc. Linn. Bordeaux* 32: 53 (1878)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China, Tche-fou: Coll?.

Illustrations (Books): T.Koyama, *Grasses of Japan and its neighbouring regions* (1987) (422, Fig 165), C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (692), C-C Hsu, *Taiwan Grasses* (1975), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 819).

Derivation (Clifford & Bostock 2007): L. species, beauty; -osa, abundance. Showy in some respect, in particular the inflorescence.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Culms erect, 70–120 cm long, 3–6 mm diam., 5–7 -noded. Culm-internodes 6–35 cm long, distally glabrous. Lateral branches lacking. Leaves mostly basal. Leaf-sheaths pubescent. Ligule an eciliate membrane or a ciliolate membrane, truncate. Leaf-blades 20–50 cm long, 4–7 mm wide. Leaf-blade surface glabrous, hairless except near base. Leaf-blade apex acute.

Inflorescence. Inflorescence composed of racemes. Peduncle pubescent above. Racemes 5–8, digitate, 10–15 cm long, 4–6 mm wide. Central inflorescence axis 3–4 cm long. Rhachis fragile at the nodes, ciliate on margins. Rhachis hairs white or yellow. Rhachis internodes linear, 3–4 mm long. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, 2.5–3.5 mm long, ciliate.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, acute, 4.75–5.2 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded, base obtuse, attached transversely. Spikelet callus hairs 0.2–0.33 length of spikelet.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, chartaceous, 2-keeled, keeled above, 2 -veined. Lower glume surface flat or concave, pilose, hairy below. Lower glume margins ciliate. Lower glume hairs white or yellow. Upper glume elliptic, 1 length of spikelet, 3 -veined. Upper glume surface pilose. Upper glume margins ciliate. Upper glume apex obtuse, muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret lanceolate or oblong, 4.5–5 mm long, hyaline, ciliolate on margins. Fertile lemma oblong, hyaline, without keel. Lemma apex lobed, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 15–20 mm long overall, with twisted column. Column of lemma awn glabrous. Palea absent or minute.

Flower and Fruit. Anthers 3, 3.25–3.5 mm long.

N = 20 (2 refs TROPICOS).

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. China, Eastern Asia. China South Central, China North-Central. Japan, Korea, Taiwan. Japan Honshu, or Kyushu. **Indian Subcontinent, Indo-China, Malasia.** Assam, India. Cambodia, Myanmar, Thailand, Vietnam. Malaya, Philippines.

TDWG4. Shaanxi, Shandong. Anhui, Fujian, Guangdong, Henan, Jiangxi, Zhejiang. Guizhou, Hubei, Sichuan, Yunnan. Assam, Meghalaya, Nagaland.

Eulalia splendens Keng & S.L. Chen. *Bull. Bot. Res. North-East. Forest. Inst.*, 12(4): 315 (1992).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Guangxi: Long-lin, Jin-Zhong Shan, ad declivitatam expositam, ca. 800 m, *Nan-Chih-Ti* 4735 (HT: IBK).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (fig. 822).

Derivation (Clifford & Bostock 2007): *L. shining*.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial. Butt sheaths persistent and investing base of culm, with fibrous dead sheaths. Culms erect, 100 cm long, 4 mm diam., 3-noded. Leaf-sheaths longer than adjacent culm internode, glabrous on surface. Ligule an eciliate membrane, 0.5 mm long, scarious, erose, truncate. Leaf-blades 15–30(–45) cm long, 3–4 mm wide, stiff. Leaf-blade surface scaberulous, rough abaxially, pilose, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Peduncle pilose above. Racemes numerous, borne along a central axis, 4–7 cm long. Central inflorescence axis 5 cm long. Rhachis fragile at the nodes, subterete, villous on margins. Rhachis internodes linear, 2–3 mm long. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, 2–3 mm long, villous.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 4 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus square, 0.3 mm long, bearded, base obtuse, attached obliquely. Spikelet callus hairs 1–2 mm long, 0.25–0.5 length of spikelet.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume lanceolate or oblong, 1 length of spikelet, chartaceous, 2-keeled. Lower glume intercarinal veins absent. Lower glume surface flat, villous, hairy below. Lower glume hairs 4 mm long. Lower glume apex acute. Upper glume lanceolate, chartaceous, with hyaline margins, 1-keeled. Upper glume primary vein eciliate or ciliate. Upper glume surface pilose. Upper glume muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret lanceolate or ovate, 3 mm long, hyaline, ciliate on margins, fringed above. Fertile lemma elliptic, hyaline, without keel. Lemma apex entire, awned, 1-awned. Principal lemma awn geniculate, 5–8 mm long overall, with twisted column. Column of lemma awn glabrous.

Flower and Fruit. Anthers 3, 2 mm long, yellow. Stigmas purple.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central, China Southeast.

TDWG4. Guangxi. Guizhou, Yunnan.

Eulalia stantonii Bor. *Kew Bull.* 1957, 411 (1958).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960).

TYPE from Nepal. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Nepal, Lete (S. of Tukucha) Kali Ganhaki, 9000 feet, steep open slopes, 18 Sep 1954, *Stanton, Sykes & Williams* 7919 (HT: BM; IT: K(photo, US)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of John David Adam Stainton (1921-) English botanist.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 30–50 cm long. Leaf-sheaths longer than adjacent culm internode, pilose. Ligule an eciliate membrane, 0.5 mm long. Leaf-blades 10–30 cm long, 3–5 mm wide. Leaf-blade surface scabrous, pilose, hairy abaxially. Leaf-blade apex attenuate.

Inflorescence. Inflorescence composed of racemes. Peduncle pilose above. Racemes 5–8, digitate, 5–9 cm long. Rhachis fragile at the nodes, ciliate on margins. Rhachis internodes linear, 3.5–5 mm long. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, 3–4 mm long, ciliate.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 4.5 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded, base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, chartaceous, 2-keeled, keeled above, 2-veined. Lower glume surface flat or concave, pilose,

hairy below. Lower glume hairs yellow. Lower glume apex acute. Upper glume oblong, 1 length of spikelet, 1-keeled, 1 -veined. Upper glume lateral veins absent. Upper glume awned, 1 -awned, awn 12 mm long.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, 4 mm long, hyaline, 0 -veined, without midvein, without lateral veins, ciliate on margins, obtuse. Fertile lemma oblong, 4 mm long, hyaline, without keel, 1 -veined, 0–3 -veined, one-veined. Lemma apex lobed, 2 -fid, with lobes 2 mm long, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 21 mm long overall, with twisted column. Column of lemma awn 4–5 mm long, glabrous. Palea 2 mm long.

Flower and Fruit. Anthers 3, 2.5 mm long.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent. Nepal.

TDWG4. Uttah Pradesh.

Eulalia tetraseta Ohwi. *Acta Phytotax. & Geobot.*, Kyoto, 22: 138 (1967).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Cambodia. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *T. Kira et al. 148*, Cambodia: S Cambodia, Popok Vil ('Poporkville') (KYO; IT: OSA).

Illustrations (Books): No illustration found (BKS).

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 40–70 cm long, 4–5 -noded. Culm-nodes pubescent. Leaf-sheaths 4–11 cm long, smooth, pilose. Ligule an eciliate membrane, 0.2 mm long, truncate. Leaf-blades filiform or linear, conduplicate, 10–30 cm long, 1–3 mm wide. Leaf-blade surface pilose, sparsely hairy, hairy adaxially.

Inflorescence. Inflorescence composed of racemes. Racemes 1, single, 3–11.5 cm long. Rhachis fragile at the nodes, ciliate on margins. Spikelet packing lax. Rhachis internodes filiform, 0.75 length of fertile spikelet. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, filiform, 1 length of internode, ciliate.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 3.5–4.5 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus square, 1 mm long, base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma, shiny. Lower glume lanceolate, 1 length of spikelet, chartaceous, 2-keeled. Lower glume primary vein pubescent. Lower glume surface with a longitudinal median groove. Lower glume margins ciliate. Lower glume apex dentate, 2 -fid, awned, 2 -awned, awn 5–9 mm long. Upper glume lanceolate, chartaceous, 1-keeled. Upper glume margins ciliate. Upper glume apex dentate, 2 -fid, awned, 1 -awned.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret lanceolate, 0.66 length of spikelet, hyaline, 0 -veined, without midvein, without lateral veins, obtuse. Fertile lemma linear or lanceolate, hyaline, without keel, 1 -veined, 0–3 -veined, one-veined. Lemma apex dentate, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 18–30 mm long overall, with twisted column. Column of lemma awn scabrous, glabrous. Palea absent or minute.

Flower and Fruit. Anthers 3, 3.5 mm long, orange.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indo-China. Cambodia, Thailand.

Eulalia thwaitesii (Hack.) Kuntze. *Rev. Gen.* 775 (1891).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960).

TYPE from Sri Lanka. **Basionym or Replaced Name:** *Pollinia thwaitesii* Hack., *DC. Monog. Phan.* 6: 163 (1889). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Sri Lanka, Nuwara Eliya: Thwaites 949 (K iso).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of George Henry Kendrick Thwaites (1812–1882) English-born botanist, sometime Superintendent Botanic Gardens, Paradeniya, Sri Lanka.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths glabrous. Culms erect, 30–60 cm long. Leaves mostly basal. Ligule a ciliolate membrane. Leaf-blades involute, 10–30 cm long, 2 mm wide.

Inflorescence. Inflorescence composed of racemes. Peduncle pubescent above. Racemes 2–3, paired or digitate, 5–8 cm long. Rhachis fragile at the nodes, villous on margins. Rhachis internodes linear, 0.5 length of fertile spikelet. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, villous.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 6–7 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded, base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume oblong, 1 length of spikelet, chartaceous, dark brown, 2-keeled, keeled above. Lower glume surface flat, villous. Lower glume hairs white. Lower glume apex obtuse. Upper glume lanceolate, 1 length of spikelet, chartaceous, 1 -veined. Upper glume lateral veins absent. Upper glume surface glabrous. Upper glume margins ciliate. Upper glume apex acuminate, muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret membranous, 0 -veined, without midvein, without lateral veins. Fertile lemma oblong, hyaline, without keel. Lemma apex dentate, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 8–13 mm long overall, with twisted column. Column of lemma awn glabrous. Palea absent or minute.

Flower and Fruit. Anthers 3.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. Indian Subcontinent. Sri Lanka.

TDWG4. Kerala.

Eulalia trispicata (Schult.) Henrard. *Blumea*, iii. 453 (1940).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*) (& as *E. lagopus*), N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960).

TYPE from India. **Basionym or Replaced Name:** *Andropogon trispicatus* Schultes, *Syst. Veg.* 2, *Mant.* 92 (1831); *Mant.* 2: 452 (1824), based on *A. tristachyos* Roxb.

A. tristachyos Roxb., *Fl. Ind.* 1: 261 (1820) non Kunth (1816). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: T: India, Roxburgh illustration at K (photo BRI).

Illustrations (Books): K.M.Matthew, *Flora Palni Hills* (1996) (830, Pl. 830), K.M.Matthew, Illustrations on the *Flora of Tamilnadu Carnatic* (1982) (Pl. 870 & 871), H.J.Noltie, *The Grasses of Bhutan* (2000) (773, Fig. 52), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 822).

Derivation (Clifford & Bostock 2007): L. tria, three; spica, thorn; -ata, possessing.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose, clumped densely. Butt sheaths glabrous. Culms erect, 30–120 cm long. Ligule a ciliate membrane. Leaf-blades 10–30 cm long, 2–5 mm wide. Leaf-blade surface glabrous.

Inflorescence. Inflorescence composed of racemes. Peduncle glabrous or pubescent above. Racemes 2–16, digitate, 5–15 cm long. Rhachis fragile at the nodes, villous on margins. Rhachis hairs white. Rhachis internodes linear, 0.25 length of fertile spikelet. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, villous.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets elliptic, dorsally compressed, 3.5–4 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume oblong, 1 length of spikelet, coriaceous, much thinner above, dark brown, 2-keeled, keeled above. Lower glume surface flat, pilose. Lower glume hairs white. Lower glume apex acute. Upper glume oblong, 1 length of spikelet, 1 -veined. Upper glume lateral veins absent. Upper glume surface pilose. Upper glume muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret 1 length of spikelet, hyaline, 0 -veined, without midvein, without lateral veins, ciliate on margins. Fertile lemma hyaline, without keel. Lemma apex lobed, 2 -fid, incised 0.5 of lemma length, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 7–15 mm long overall, with twisted column. Column of lemma awn glabrous. Palea absent or minute.

Flower and Fruit. Anthers 3.

N = 9 (4 refs TROPICOS), or 10 (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia, Australasia.

Country /Province /State. China. China South Central. **Indian Subcontinent, Indo-China, Malesia, Papuasia.** Assam, Bangladesh, Eastern Himalaya, India, Nepal, Pakistan, Sri Lanka, West Himalaya. Andaman Is, Cambodia, Laos, Myanmar, Thailand, Vietnam. Java, Lesser Sunda Is, Malaya, Philippines, Sulawesi, Sumatra. New Guinea. **Australia.** Queensland.

TDWG4. Yunnan. Bhutan. Assam, Meghalaya. Andhra Pradesh, Bihar, Kerala, Karnataka. Jammu Kashmir. North, Central, South East.

Eulalia villosa (Spreng.) Nees. *Fl. Afr. Austr.* 91 (1841).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.L.Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960) (as *E. wightii*).

TYPE from South Africa. **Basionym or Replaced Name:** *Pollinia villosa* Spreng., *Syst.* 1: 288 (1824). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: South Africa, Cape: Thunberg.

Recent Synonyms: *Eulalia wightii* (Hook. f.) Bor, *Grasses Burma, Ceyl., Ind. & Pakist.* 158 (1960).

Illustrations (Books): R.M.Polhill, F.T.E.A., *Gramineae* (3(1982):714, Fig 165), G.V.Pope et al., *Flora Zambesiaca* 10, L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (485, Fig 397), G.E.Gibbs Russell et al., *Grasses of Southern Africa* (1990) (166, Fig 95), J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969) (213, Fig 76), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (296, Fig 118), K.M.Matthew, *Flora Palni Hills* (1996) (831, Pl 831 as *E. wightii*).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): L. villi, long weak hairs; -osa, abundance. The plant in whole or in part covered with long hairs.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms erect, 40–120 cm long. Ligule a ciliate membrane. Leaf-blades 5–25 cm long, 3–8 mm wide. Leaf-blade surface pubescent. Leaf-blade apex acute.

Inflorescence. Inflorescence composed of racemes. Racemes 3–12, digitate, 5–15 cm long. Rhachis fragile at the nodes, villous on margins. Rhachis hairs white. Rhachis internodes linear. Rhachis internode tip transverse. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, villous.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 5–7 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus base obtuse, attached transversely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, cartilaginous, dark brown, 2-keeled, keeled above. Lower glume primary vein ciliate. Lower glume intercarinal veins distinct. Lower glume surface concave, glabrous or pilose. Lower glume hairs white. Lower glume apex truncate. Upper glume elliptic, 1 length of spikelet. Upper glume surface glabrous or pilose. Upper glume muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret 4–7 mm long, membranous, much thinner above. Fertile lemma oblong, 3 mm long, hyaline, without keel, 3 -veined, 0–3 -veined. Lemma apex lobed, 2 -fid, incised 0.33–0.5 of lemma length, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 10–20 mm long overall, with twisted column. Column of lemma awn glabrous. Palea absent or minute.

Flower and Fruit. Anthers 3.

N = 10 (1 ref TROPICOS).

Distribution (TDWG). Continent. Africa, Temperate Asia.

Country /Province /State. West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa, Western Indian ocean. DRC. Ethiopia (inc. Eritrea). Tanzania. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Limpopo, Mpumalanga, Swaziland, Kwazulu-Natal, Eastern Cape. Madagascar. **China.** China South Central.

TDWG4. Yunnan. Tamilnadu.

Eulalia yunnanensis Keng & S.L. Chen. *Bull. Bot. Res. North-East. Forest. Inst.*, 12(4): 316 (1992).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006).

TYPE from China. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: China: Yunnan: sine loco definito, *C.J. Sieh 843* (HT: NJU).

Illustrations (Books): S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 822).

Derivation (Clifford & Bostock 2007): L. -ense, denoting origin. From Yunnan Province, China.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe SACCHARINAE.

Habit, Vegetative Morphology. Perennial. Butt sheaths persistent and investing base of culm, with fibrous dead sheaths. Culms erect, 60 cm long, 6–7 -noded. Culm-internodes distally glabrous. Leaves without demarcation between sheath and blade. Leaf-sheaths as wide as blade at the collar, glabrous on surface, outer margin hairy. Ligule an eciliate membrane, 2 mm long, scarious, obtuse. Leaf-blades 4–15 cm long, 2–4 mm wide. Leaf-blade surface glabrous, hairless throughout or except near base. Leaf-blade apex attenuate.

Inflorescence. Inflorescence composed of racemes. Peduncle pilose above. Racemes 5–7, digitate, 8–10 cm long. Rhachis fragile at the nodes, subterete, ciliate on margins. Rhachis hairs white or purple. Rhachis internodes linear, 3 mm long. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, angular, 4 mm long, ciliate, with white hairs or purple hairs.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 4 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus square, 0.5 mm long, pubescent, base obtuse, attached obliquely.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume lanceolate or oblong, 1 length of spikelet, chartaceous, much thinner above, 2-keeled. Lower glume surface flat, pilose, hairy at apex or at base. Lower glume hairs white or purple. Upper glume lanceolate, chartaceous, 1-keeled. Upper glume primary vein ciliate. Upper glume surface pilose. Upper glume margins ciliate. Upper glume muticous.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong or ovate, 3 mm long, hyaline, ciliolate on margins, fringed above. Fertile lemma oblong, 2 mm long, hyaline, without keel. Lemma apex dentate, 2 -fid, incised 0.25 of lemma length, awned, 1 -awned. Principal lemma awn from a sinus, bigeniculate, 15 mm long overall, with twisted column. Middle segment of lemma awn 4 mm long. Column of lemma awn 3 mm long, glabrous. Palea ovate, 1 mm long.

Flower and Fruit. Anthers 3, 2 mm long.

Distribution (TDWG). Continent. Temperate Asia.

Country /Province /State. China. China South Central.

TDWG4. Yunnan.

Eulaliopsis binata (Retz.) C. E. Hubbard. *Hook. Ic. Pl.* iii. t. 3262, p. 6 (1935).

Accepted by: W.D. Clayton & K. Harman, *GrassBase* (2008) and online, U. Quattrocchi, *CRC World Dictionary of Grasses* (2006), S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F. Veldkamp, *Poaceae ms (Flora Malesiana)*, N.L. Bor, *Grasses of Burma, Ceylon, India and Pakistan* (1960), T. Koyama, *Grasses of Japan and its neighboring regions* (1987).

TYPE from India. **Basionym or Replaced Name:** *Andropogon binatus* Retz., *Observ. Bot.* 5: 21 (1789)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: India: Travancore., *Koenig s.n.* (HT: ?).

Illustrations (Books): C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (694), C-C Hsu, *Taiwan Grasses* (1975), T.A. Cope, *Flora of Pakistan* 143: *Poaceae* (1982), H.J. Noltie, *The Grasses of Bhutan* (2000) (779, Fig. 53), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 829).

Derivation (Clifford & Bostock 2007): L. bis, twice; natus, born. Racemes borne in digitate pairs.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe ANDROPOGONINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths woolly, persistent and investing base of culm, with compacted dead sheaths. Culms erect, 60–90 cm long. Culm-nodes glabrous or bearded. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs. Leaf-blades flat or convolute, 30–60 cm long, 2–3 mm wide, stiff.

Inflorescence. Inflorescence composed of racemes, terminal and axillary. Axillary inflorescences present throughout the plant, similar to terminal. Racemes 2–4, digitate, 2–4 cm long. Rhachis fragile at the nodes, flattened. Rhachis internodes linear, 1.75–2.25 mm long. Rhachis internode tip oblique. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, flattened, 1.75–2.25 mm long.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 3.5–4.5 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded. Spikelet callus hairs dark brown, 0.25–0.5 length of spikelet.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume elliptic, 1 length of spikelet, chartaceous, pallid, without keels, 5 -veined. Lower glume lateral veins ribbed. Lower glume

surface villous, hairy below. Lower glume apex dentate, 2–3 -fid. Upper glume lanceolate, chartaceous, without keels, 3–5 -veined. Upper glume primary vein scabrous. Upper glume surface villous, hairy below. Upper glume apex dentate, 2 -fid, mucronate or awned, 1 -awned, awn 0–2.5 mm long.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret oblong, hyaline, 0 -veined, without midvein, without lateral veins, dentate, 2 -fid. Fertile lemma linear, 3.4–4.3 mm long, hyaline, without keel, 1 -veined, 0–3 -veined, one-veined. Lemma apex dentate, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 6–9 mm long overall, with a straight or slightly twisted column. Palea obovate, 0.7 length of lemma, hyaline. Palea apex ciliate.

Flower and Fruit. Anthers 3, 2 mm long.

N = 10 (1 ref TROPICOS).

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. **Western Asia, China, Eastern Asia.** Afghanistan. China South Central, China North-Central, China Southeast. Taiwan. **Indian Subcontinent, Indo-China, Malesia, Papuasias.** Assam, Eastern Himalaya, India, Nepal, Pakistan, West Himalaya. Myanmar, Thailand. Philippines. New Guinea.

TDWG4. Shaanxi. Guangdong, Guangxi, Henan. Guizhou, Hubei, Sichuan, Yunnan. Darjeeling, Bhutan. Meghalaya. Andhra Pradesh, Bihar. Madhya Pradesh, Uttah Pradesh. Jammu Kashmir.

Eulaliopsis sykesii Bor. *Kew Bull.* 1957, 412 (1958).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960).

TYPE from Nepal. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Nepal: Hunta: nagdung Khola, 8500 feet, dry open slopes, 5 Sep 1952, *Sykes & Williams 3170* (HT: BM; IT: K(photo, US)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): in honor of William Russell Sykes (1927-) English-born New Zealand botanist.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe **ANDROPOGONINAE**.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths woolly, persistent and investing base of culm, with compacted dead sheaths. Culms geniculately ascending, 20–40 cm long, 3–4 -noded. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheath oral hairs bearded. Ligule a fringe of hairs. Leaf-blades flat or conduplicate, 15–20 cm long, 2 mm wide. Leaf-blade surface pilose, hairy on both sides, with tubercle-based hairs. Leaf-blade margins scabrous.

Inflorescence. Inflorescence composed of racemes, terminal, subtended by an inflated leaf-sheath. Racemes 2, paired, 2.5 cm long. Rhachis fragile at the nodes, flattened, ciliate on margins. Rhachis internodes linear, 1.5–2 mm long. Rhachis internode tip oblique. Spikelets in pairs. Fertile spikelets sessile and pedicelled, 2 in the cluster. Pedicels present, linear, flattened, 1.5–2 mm long, pubescent.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rhachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, dorsally compressed, 5–5.5 mm long, falling entire, deciduous from the base or with accessory branch structures. Spikelet callus bearded. Spikelet callus hairs dark brown, 1 length of spikelet.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume oblong, 1 length of spikelet, chartaceous, pallid, without keels, 7 -veined. Lower glume lateral veins ribbed. Lower glume surface villous, hairy below. Lower glume hairs red. Lower glume apex dentate, 2–3 -fid. Upper glume lanceolate, chartaceous, without keels, 3 -veined. Upper glume primary vein scabrous. Upper glume surface villous, hairy below. Upper glume hairs red. Upper glume apex dentate, 2 -fid, awned, 1 -awned, awn 8–8.5 mm long.

Florets. Basal sterile florets 1, male, with palea. Lemma of lower sterile floret oblong, 3.5 mm long, hyaline, 1 -veined, pilose, hairy at apex. Palea of lower sterile floret pilose, adorned on keels (above). Fertile lemma linear, 3 mm long, hyaline, without keel, 1 -veined, 0–3 -veined, one-veined. Lemma surface scaberulous, rough above. Lemma apex dentate, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 18–20 mm long overall, with twisted column. Column of lemma awn 5 mm long. Palea orbicular, 0.7–0.8 length of lemma, hyaline, 2 -veined. Palea apex ciliate.

Flower and Fruit. Anthers 3, 2–3.5 mm long.

Distribution (TDWG). Continent. Tropical Asia.

Country /Province /State. **Indian Subcontinent.** Nepal.

Eustachys bahiensis (Steud.) Herter. *Fl. Illustr. Urug.* i. 85 (1941).

Accepted by: U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. **Basionym or Replaced Name:** *Chloris bahiensis* Steud., *Syn. Pl. Glumac.* 1: 208 (1854)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: LT: *Salzmann s.n. (Moricond Herb. 2442)*, Brazil: Bahia (MO-1837389; IT: US-2639951 (fragm. ex P), K, P, BAA (fragm. ex MO)). LT designated (as holotype) by A.M. Molina, *Candollea* 51: 255 (1996).

Illustrations (Books): B.Rosengurt, *Gramineas Uruguayas I* (1970) (236, Fig. 9 as *Chloris*).

Derivation (Clifford & Bostock 2007): L. *-ense*, denoting origin. From Bahia State, Brazil.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Basal innovations flabellate. Culms 15–125 cm long. Leaf-sheaths keeled, glabrous on surface. Ligule a ciliolate membrane, 0.1–0.2 mm long. Leaf-blades flat or conduplicate, 4–25 cm long, 4–11 mm wide. Leaf-blade surface glabrous. Leaf-blade apex obtuse to acute.

Inflorescence. Inflorescence composed of racemes. Racemes (2–)3–19, digitate, unilateral, 4–14 cm long, 2.5 mm wide. Spikelet packing broadside to rhachis, crowded, regular. Spikelets pectinate, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets obovate, laterally compressed, 2–3 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pilose.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 1.2–2 mm long, 0.8 length of upper glume, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume surface asperulous. Lower glume apex acute. Upper glume oblong, 1.5–3 mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume surface asperulous. Upper glume apex lobed, 2 -fid, obtuse, awned, 1 -awned, awn 0.7–1 mm long.

Florets. Fertile lemma ovate, laterally compressed, 2–2.5 mm long, cartilaginous, of similar consistency above, dark brown, keeled, keeled below, 3 -veined, 0–3 -veined. Lemma midvein ciliate, hairy all along. Lemma surface scaberulous, rough above, glabrous. Lemma margins pubescent, hairy all along. Lemma apex acute. Palea 2 -veined. Apical sterile florets 1 in number, barren, oblong, 1.5 mm long. Apical sterile lemmas obtuse.

Flower and Fruit. Anthers 3, 1 mm long. Caryopsis trigonous, 1.2–2 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Southern South America. Bolivia. Uruguay.

Eustachys brevipila (Roseng. & Izag.) Caro & E. Sanchez. *Kurtziana*. 6: 124 (1971).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Uruguay. **Basionym or Replaced Name:** *Chloris brevipila* Roseng. & Izag., *Bol. Soc. Argent. Bot.* 12: 120, f. 2 (1968)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Uruguay: Tacuarembos: Ruta 5 & Achar Tacuarembos, 12 Mar 1966, B. Rosengurt, *del Puerto & Marchesi 10173* (HT: MVFA).

Illustrations (Books): B.Rosengurt, *Gramineas Uruguayas I* (1970) (236, Fig. 9 as *Chloris*).

Derivation (Clifford & Bostock 2007): L. *brevis*, short, *pilum*, hair. Lemmas or glumes bearing short hairs.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Basal innovations intravaginal, flabellate. Culms erect, 10–45 cm long, 1–2 -noded. Culm-internodes elliptical in section, distally glabrous. Culm-nodes glabrous. Lateral branches lacking. Leaf-sheaths with winged keel. Ligule a ciliate membrane, 0.4–0.7 mm long. Leaf-blades conduplicate, 2–11 cm long, 2–4 mm wide. Leaf-blade surface glabrous. Leaf-blade apex abruptly acute.

Inflorescence. Inflorescence composed of racemes. Racemes 3–5, digitate, unilateral, 1–5 cm long. Rhachis angular, 3 mm wide, glabrous on surface, scaberulous on margins. Spikelet packing broadside to rhachis, crowded, regular, 1 -rowed. Spikelets pectinate, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets obovate, laterally compressed, 1.8–2.4 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus glabrous.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 1–1.5 mm long, 0.66–0.75 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex emarginate or acute, mucicous or mucronate. Upper glume oblong, 1.5–2 mm long, 0.75–0.85 length of adjacent fertile lemma,

membranous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume surface asperulous, rough above. Upper glume apex lobed, 2 -fid, obtuse, awned, 1 -awned, awn 0.5–0.9 mm long.

Florets. Fertile lemma oblate, laterally compressed, 1.8–2.4 mm long, chartaceous, dark brown, keeled, 3 -veined, 0–3 -veined. Lemma midvein ciliate, hairy in the middle. Lemma surface asperulous, rough above. Lemma margins ciliate, hairy above. Lemma hairs 0.5 mm long. Lemma apex acute, mucicous or mucronate. Palea 1 length of lemma, 2 -veined. Palea keels eciliate or ciliolate. Rhachilla extension 0.3–0.4 mm long. Apical sterile florets 1 in number, barren, cuneate, 0.5 mm long. Apical sterile lemmas truncate.

Flower and Fruit. Anthers 3, 0.5 mm long. Caryopsis with adherent pericarp, trigonous, 1.1–1.2 mm long, dark brown. Embryo 0.5 length of caryopsis. Hilum punctiform.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil, Southern South America. Brazil South. Uruguay.

TDWG4. Corrientes, Entre Rios.

Eustachys calvescens (Hackel) Caro & E. Sanchez. *Kurtziana*, 6: 128 (1971).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Paraguay. **Basionym or Replaced Name:** *Chloris calvescens* Hack., *Bull. Herb. Boissier*, ser. 2, 4(3): 279 (1904)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Hassler 8369*, Paraguay: In arenosis in regione cursus superioris fluminis Apa (G).

Illustrations (Books): B.Rosengurtt, *Gramineas Uruguayas I* (1970) (236, Fig. 95 as *Chloris*).

Derivation (Clifford & Bostock 2007): *L. calvesco*, become bald. Plants in whole or in part glabrous.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Basal innovations flabellate. Culms erect, 50–100 cm long. Leaf-sheaths keeled. Ligule a fringe of hairs. Leaf-blades flat or conduplicate, 20–40 cm long, 5–9 mm wide. Leaf-blade apex obtuse, apiculate.

Inflorescence. Inflorescence composed of racemes. Racemes 1–4, digitate, erect, straight, unilateral, 6–12 cm long. Spikelet packing broadside to rhachis, crowded, regular. Spikelets pectinate, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets obovate, laterally compressed, 3.5 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus glabrous.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 2.3 mm long, 0.8 length of upper glume, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume oblong, 2.8 mm long, 0.8 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume apex lobed, 2 -fid, obtuse, awned, 1 -awned, awn 0.5–1 mm long.

Florets. Fertile lemma ovate, laterally compressed, 3.5 mm long, chartaceous, dark brown, keeled, 3 -veined, 0–3 -veined. Lemma margins pubescent. Lemma hairs 0.2–0.5 mm long. Lemma apex obtuse. Palea 2 -veined. Apical sterile florets 1 in number, barren, oblong, 1–1.5 mm long. Apical sterile lemmas obtuse.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil, Southern South America. Brazil South. Paraguay.

TDWG4. Mato Grosso, Sao Paulo Parana. Misiones.

Eustachys caribaea (Spreng.) Herter. *Rev. Sudamer. Bot.* vi. 147 (1940).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Caribbean. **Basionym or Replaced Name:** *Chloris caribaea* Spreng., *Syst. Veg.* 1: 295 (1825)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IT: *Anonymous*, no date, "West Indies" (US-879338 (fragm.)).

HT: *Bertero s.n.*, Guadeloupe (B; IT: US (fragm. ex B)). (probabelmente erro por ser desconhecida nas Antilhas).

Recent Synonyms: *Chloris bahiensis* Steud., *Syn. Pl. Gram.* 208. (1854).

Illustrations (Books): S.A.Renvoize, *The Grasses of Bahia*, 1984 (91, Fig. 32), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (421, Fig. 96 as *Chloris*).

Derivation (Clifford & Bostock 2007): from one of the Caribbean Islands.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial. Rhizomes elongated. Basal innovations flabellate. Culms 15–74 cm long. Leaf-sheaths keeled. Ligule a fringe of hairs. Leaf-blades flat or conduplicate, 4–15 cm long, 4–11 mm wide. Leaf-blade apex obtuse to acute.

Inflorescence. Inflorescence composed of racemes. Racemes 4–7, digitate, unilateral, 4–14 cm long. Spikelet packing broadside to rachis, crowded, regular. Spikelets pectinate, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets obovate, laterally compressed, 2–2.5 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pilose.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 1.2(–2) mm long, 0.8 length of upper glume, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume oblong, 1.5–2(–2.5) mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume apex lobed, 2 -fid, obtuse, awned, 1 -awned, awn 0.5 mm long.

Florets. Fertile lemma ovate, laterally compressed, 2–2.5 mm long, cartilaginous, of similar consistency above, dark brown, keeled below, 3 -veined, 0–3 -veined. Lemma midvein ciliate, hairy below. Lemma margins ciliate, hairy above. Lemma apex acute. Palea 2 -veined. Apical sterile florets 1 in number, barren, oblong, 1.5 mm long. Apical sterile lemmas obtuse.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Brazil, Southern South America. Bolivia. Brazil Northeast, Brazil Southeast, Brazil South. Argentina Northeast.

TDWG4. Bahia, Ceara, Rio Grande do Norte, Paraiba, Pernambuco, Alagoas, Sergipe, Sao Paulo Parana, Catarina, Rio Grande do Sul. Buenos Aires.

Eustachys distichophylla (Lag.) Nees. *Mart. Fl. Bras.* ii. 418 (1829).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), D.Sharp, D. & B.K.Simon, *AusGrass* (2002).

TYPE from Argentina. **Basionym or Replaced Name:** *Chloris distichophylla* Lag., *Gen. et Sp. Nov.* 4. (1816). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Argentina: *Nee* (MA holo, BA).

Illustrations (Books): J.P.Jessop, G.R.M. Dashorst & F.M.James, *Grasses of South Australia* (2006) (385, Fig. 319), S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler, *Grasses of New South Wales*, 4th edn (2008) (266), J.C.Tothill, & J.B.Hacker. *The grasses of southern Queensland* (1983) (156(11 & 246)), T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989) (164, Fig. 25), K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004) (286, Fig. 47), D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002), S.A.Renvoize, *Gramineas de Bolivia* (1998) (302, Fig. 62), S.A.Renvoize, *The Grasses of Bahia*, 1984 (91, Fig. 32), E.G.Nicora, *Los Generos de Gramineas de America Austral* (1987) (412, Fig. 146), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (421, Fig. 96 as *Chloris*), A.Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (261, Fig. 100 as *Chloris*), A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (415, Fig. 107), B.Rosengurt, *Gramineas Uruguayas I* (1970) (234, Fig. 94 as *Chloris*), R.Pilger, *Die Natürlichen Pflanzenfamilien* 14d (1956) (107, Fig. 29 as *Chloris*).

Illustrations (Journals): *Ruizia* (13:284, Fig 34a-c (1993)).

Derivation (Clifford & Bostock 2007): Gk. distichos, in two rows; phyllon, leaf. Leaves arranged conspicuously in two rows.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Basal innovations flabellate. Culms 55–120 cm long. Leaf-sheaths keeled. Ligule a fringe of hairs. Leaf-blades flat or conduplicate, (5–)10–38 cm long, (5–)7–15 mm wide. Leaf-blade apex obtuse to acute.

Inflorescence. Inflorescence composed of racemes. Racemes 14–28(–33), digitate, flexuous, unilateral, 9–17 cm long. Spikelet packing broadside to rachis, crowded, regular. Spikelets pectinate, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets obovate, laterally compressed, 2.5–3.3 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pilose.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 1.2–1.7 mm long, 0.66–0.75 length of upper glume, membranous, without keels, 1 -veined.

Lower glume lateral veins absent. Lower glume apex acute. Upper glume oblong, 1.8–2.3 mm long, 0.7 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume apex lobed, 2 -fid, obtuse, awned, 1 -awned, awn 0.5 mm long.

Florets. Fertile lemma ovate, laterally compressed, 2.5–3.3 mm long, chartaceous, dark brown, keeled, 3 -veined, 0–3 -veined. Lemma margins ciliate, hairy all along. Lemma hairs 1–1.2 mm long. Lemma apex acute, mucronate. Palea 2 -veined. Apical sterile florets 1 in number, barren, oblong, 1.5–1.7 mm long. Apical sterile lemmas obtuse.

Distribution (TDWG). Continent. Australasia (*), North America, South America.

Country /Province /State. **Australia.** Western Australia (*), South Australia (*), Queensland (*), New South Wales (*). **Southwestern USA, Southeastern USA.** California. Florida, Georgia. **Western South America, Brazil, Southern South America.** Bolivia, Peru. Brazil West Central, Brazil Southeast, Brazil South. Argentina Northeast, Argentina Northwest, Paraguay.

TDWG4. Kimberley, South-West. Southern. North, Central, South East. Bahia, Minas Gerais, Rio de Janeiro, Espirito Santo, Sao Paulo Parana, Catarina, Rio Grande do Sul. Catamarca, Jujuy, Salta, Santiago del Estero, San Luis, Tucuman. Buenos Aires, Chaco, Cordoba, Corrientes, Distrito Federal, Entre Rios, Formosa, Misiones, Santa Fe.

Eustachys floridana Chapm. *Fl. S. U. St.* 557 (1860).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: USA: Dry Pine barrens, middle Florida.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L.-ana, indicating location. From Florida State, USA.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial. Basal innovations flabellate. Culms 40–80 cm long. Leaf-sheaths keeled. Ligule a ciliate membrane. Leaf-blades flat or conduplicate, 10–20 cm long, 3–7 mm wide. Leaf-blade apex abruptly acute.

Inflorescence. Inflorescence composed of racemes. Racemes 2–4, paired or digitate, unilateral, 5–10 cm long. Rhachis angular, scabrous on surface, scabrous on margins. Spikelet packing broadside to rhachis, crowded, regular. Spikelets pectinate, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets obovate, laterally compressed, 3 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pilose.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume elliptic, 2 mm long, 0.7–0.8 length of upper glume, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume oblong, 2.5 mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume apex lobed, 2 -fid, obtuse, awned, 1 -awned, awn 1 mm long.

Florets. Fertile lemma ovate, laterally compressed, 3 mm long, chartaceous, dark brown, keeled, 3 -veined, 0–3 -veined. Lemma midvein ciliate. Lemma margins ciliate. Lemma apex emarginate, mucronate. Principal lemma awn 0.5–1 mm long overall. Palea 2 -veined. Apical sterile florets 1 in number, barren, cuneate, 1.5–2 mm long. Apical sterile lemmas truncate, awned, 1 -awned. Apical sterile lemma awns 0.5 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. **Southeastern USA.** Alabama, Florida, Georgia.

Eustachys glabrescens (Hack.) Caro & E.Sanchez. *Kurtziana*, 6: 120 (1971).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Paraguay. **Basionym or Replaced Name:** *Chloris bahiensis* fo. *glabrescens* Hack., *Repert. Spec. Nov. Regni Veg.* 8: 46 (1910)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *K. Fiebrig* 4575, Sep 1909, Paraguay: Nordl. Paraguay, 22–23 lat., entre Rmo Apa y Aquidaban, Niederein camp, leiwaldinsel (W; IT: BAA, G, L, US-80855 (fragm.)).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): L. *glabresco*, becoming glabrous. Quite glabrous with respect to the whole plant or one or more of its parts.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial. Stolons present. Culms 37–95 cm long, 5 -noded. Culm-internodes elliptical in section. Culm-nodes brown. Lateral branches lacking or sparse. Leaf-sheaths keeled. Ligule a fringe of hairs, 0.2 mm long. Leaf-blades (6.5–)9–10 cm long, 5–6 mm wide, glaucous. Leaf-blade surface glabrous. Leaf-blade margins scabrous. Leaf-blade apex acute.

Inflorescence. Inflorescence composed of racemes. Racemes 3, single, erect or drooping, unilateral, (5–)9–13 cm long. Spikelet packing broadside to rhachis, crowded, regular. Spikelets pectinate, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets obovate, laterally compressed, 2–2.5 mm long, breaking up at maturity, disarticulating below each fertile floret.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 1.2–2 mm long, 1 length of upper glume, membranous, without keels. Lower glume surface asperulous. Lower glume apex acute, mucronate. Upper glume lanceolate, 1.2–2 mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, without keels. Upper glume apex obtuse, mucronate or awned, 1 -awned, awn 0.5 mm long.

Florets. Fertile lemma elliptic, laterally compressed, 2–2.5 mm long, 1 mm wide, cartilaginous, dark brown, keeled, 3 -veined, 0–3 -veined. Lemma midvein ciliate, hairy all along or below. Lemma surface asperulous, rough above. Lemma margins ciliate, hairy in the middle. Lemma apex obtuse. Palea 2 mm long, 2 -veined. Rhachilla extension 0.1–0.8 mm long. Apical sterile florets 1 in number, barren, oblong, (1.8–)2–2.2 mm long. Apical sterile lemmas scabrous, obtuse.

Flower and Fruit. Lodicules 2, cuneate, 0.6 mm long, fleshy. Anthers 3, 0.6–1 mm long. Caryopsis with adherent pericarp, trigonous, light brown. Embryo 0.5–0.66 length of caryopsis. Hilum punctiform.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Brazil, and Southern South America. Bolivia. Brazil West Central. Paraguay.

Eustachys glauca Chapm. *Fl. S. U. St.* 557 (1860).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Brackish marshes, West Florida, *Chapman s.n. [Aug-Sep]*.

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003) (221).

Derivation (Clifford & Bostock 2007): *L. glauca*, bluish-green. Whole plant or any of its parts glaucous.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial. Basal innovations flabellate. Culms erect, robust, 70–150 cm long. Leaf-sheaths keeled. Ligule a ciliate membrane. Leaf-blades flat or conduplicate, 15–30 cm long, 5–10 mm wide. Leaf-blade apex obtuse.

Inflorescence. Inflorescence composed of racemes. Racemes 10–20, digitate, unilateral, 7–12 cm long. Rhachis angular, scabrous on surface, scabrous on margins. Spikelet packing broadside to rhachis, crowded, regular. Spikelets pectinate, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets obovate, laterally compressed, 2–2.5 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus glabrous.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 1–1.3 mm long, 0.66 length of upper glume, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume oblong, 1.5–1.9 mm long, 0.75 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume surface scabrous. Upper glume apex lobed, 2 -fid, obtuse, awned, 1 -awned, awn oblique, awn 0.5 mm long.

Florets. Fertile lemma ovate, laterally compressed, 2–2.5 mm long, coriaceous, dark brown or black, keeled, 3 -veined, 0–3 -veined. Lemma apex obtuse, mucinous. Palea 2 -veined. Apical sterile florets 1 in number, barren, oblong, 1.5 mm long. Apical sterile lemmas truncate.

Distribution (TDWG). Continent. North America.

Country /Province /State. Southeastern USA. Alabama, Florida, Georgia, Mississippi, South Carolina.

Eustachys neglecta (Nash) Nash. *Bull. Torr. Bot. Club*, 1898, 450 (1898).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from USA. **Basionym or Replaced Name:** *Chloris neglecta* Nash, *Bull. Torrey Bot. Club* 22(10): 423–424 (1895)

T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: ST: *G.V. Nash 2149*, 1 Jul 1895–10 Jul 1895, USA: Florida, Lake Co., near Orange Bed Lake, in low pine lands (US-252261).

ST: *A.H. Curtiss 3445*, 1875, USA: Florida: Jacksonville

ST: *Fredholm 319*, 1893, USA: Florida: Duval Co., along the banks of the St. John's River.

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. negligo*, disregard. Often a segregate from another species with which confusion is likely.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial. Basal innovations flabellate. Culms erect, 70–120 cm long, 3-noded. Lateral branches lacking. Leaf-sheaths keeled, striately veined. Ligule a ciliolate membrane. Leaf-blades conduplicate, 10–20 cm long, 5–9 mm wide. Leaf-blade margins scaberulous. Leaf-blade apex obtuse.

Inflorescence. Inflorescence composed of racemes. Racemes 4–6, digitate, ascending, unilateral, 8–15 cm long. Rhachis angular. Spikelet packing broadside to rhachis, crowded, regular. Spikelets pectinate, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets obovate, laterally compressed, 3 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume elliptic, 1.2 mm long, 0.66 length of upper glume, membranous, without keels, 1-veined. Lower glume lateral veins absent. Lower glume apex emarginate, mucronate. Upper glume oblong, 2.5 mm long, 0.9–1 length of adjacent fertile lemma, membranous, without keels, 1-veined. Upper glume lateral veins absent. Upper glume surface puberulous. Upper glume apex lobed, 2-fid, obtuse, awned, 1-awned, awn 1 mm long.

Florets. Fertile lemma elliptic, laterally compressed, 2.5–2.8 mm long, chartaceous, light brown, keeled, 3-veined, 0–3-veined. Lemma midvein pubescent, hairy below. Lemma margins pubescent, hairy above. Lemma hairs 0.7 mm long. Lemma apex emarginate, mucronate or awned, 1-awned. Principal lemma awn subapical, 0.5–1 mm long overall. Palea 0.9 length of lemma, 2-veined. Apical sterile florets 1 in number, barren, cuneate, 1.5–2 mm long. Apical sterile lemmas truncate, awned, 1-awned. Apical sterile lemma awns 0.5–1 mm long.

Flower and Fruit. Caryopsis with adherent pericarp, ellipsoid, trigonous, 1.5 mm long.

Distribution (TDWG). Continent. North America.

Country /Province /State. Southeastern USA. Alabama, Florida.

Eustachys paranensis A.M. Molina. *Candollea*, 51(1): 234 (1996).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: Brasil: Parana: Ponta Grossa, rare on campo, Fazenda de Criacao, 4 Feb 1946, *J. R. Swallen 8459* (HT: US-1960543; IT: PEL).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. -ensis*, denoting origin. From Parana, Brazil.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Basal innovations intravaginal, flabellate. Culms erect, 80–117 cm long, 4–5-noded. Culm-internodes elliptical in section. Culm-nodes brown, glabrous. Lateral branches lacking. Leaf-sheaths longer than adjacent culm internode, keeled. Ligule a fringe of hairs, 0.5 mm long. Leaf-blades flat or conduplicate, 8–12 cm long, 2–3 mm wide. Leaf-blade surface scabrous, rough adaxially. Leaf-blade margins scabrous. Leaf-blade apex obtuse, apiculate.

Inflorescence. Inflorescence composed of racemes, exerted or embraced at base by subtending leaf. Racemes 2–5, digitate, unilateral, 4.5–7 cm long. Rhachis angular, scabrous on margins. Spikelet packing broadside to rhachis, crowded, regular. Spikelets pectinate, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets obovate, laterally compressed, 3 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus glabrous.

Glumes. Glumes persistent, dissimilar, exceeding apex of florets, thinner than fertile lemma, gaping. Lower glume lanceolate, 2.5–2.8 mm long, 0.9 length of upper glume, membranous, without keels, 1-veined. Lower

glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume lanceolate, 2.8–3 mm long, 1.25 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume primary vein scaberulous. Upper glume lateral veins absent. Upper glume apex acute, awned, 1 -awned, awn subapical, awn 1 mm long.

Florets. Fertile lemma ovate, laterally compressed, 2.2 mm long, chartaceous, dark brown, keeled, 3 -veined, 0–3 -veined. Lemma surface asperulous, rough above, glabrous. Lemma apex acute. Palea 2.1 mm long, 2 -veined. Palea keels scaberulous. Rhachilla extension 1 mm long. Apical sterile florets 1–2 in number, barren, oblong, 1.5–2 mm long. Apical sterile lemmas scabrous, obtuse.

Flower and Fruit. Lodicules 2, 0.2 mm long. Anthers 3, 0.6 mm long. Caryopsis with adherent pericarp, trigonous, 1 mm long. Embryo 0.5 length of caryopsis. Hilum punctiform.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil. Brazil South.

Eustachys paspaloides (Vahl) Lanza & Mattei. *Boll. Ort. Bot. Palermo*, ix. 56 (1910).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from South Africa, Cape. **Basionym or Replaced Name:** *Cynosurus paspaloides* Vahl, *Symb. Bot.* 2(27): 21 (1791)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *Blow s.n.*, South Africa: Cape (C-Herb. Vahl).

Recent Synonyms: *Chloris capensis* (Houtt.) Thell., nom superfl, *Fedde, Repert* 10: 289 (1912).

Illustrations (Books): R.M.Phillip, F.T.E.A., *Gramineae* (2v:336, Fig.95), G.V.Pope et al., *Flora Zambesiaca* 10 (2(1999):215 t. 62), L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955) (195, Fig 170), G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990) (167, Fig 96), S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (167, Fig 69), T.A.Cope, in M.Thulin, *Poaceae* (Gramineae). *Flora of Somalia* (1995) (206, Fig 113), A.Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (259, Fig. 99 as *Chloris capensis*).

Images: F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999).

Derivation (Clifford & Bostock 2007): Gk. -oides, resembling. Resembling Paspalum, usually with respect to the inflorescence.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial. Basal innovations flabellate. Culms erect or decumbent, 20–80 cm long. Leaf-sheaths keeled. Ligule a fringe of hairs. Leaf-blades flat or conduplicate, 2–18 cm long, 2–5 mm wide. Leaf-blade apex abruptly acute.

Inflorescence. Inflorescence composed of racemes. Racemes (3–)4–10(–15), digitate, unilateral, 3–7 cm long. Rhachis semiterete. Spikelet packing broadside to rhachis, crowded, regular, 2 -rowed. Spikelets pectinate, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets obovate, laterally compressed, truncate, 1.5–2.4 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume ovate, 0.7–1.6 mm long, 0.7–0.8 length of upper glume, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex obtuse. Upper glume oblong, 1–2 mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume surface scabrous. Upper glume apex truncate, awned, 1 -awned, awn subapical, awn 0.5–1.5 mm long.

Florets. Fertile lemma ovate, laterally compressed, 1.5–2.4 mm long, chartaceous, much thinner above, dark brown, keeled, 3 -veined, 0–3 -veined. Lemma midvein ciliate. Lemma surface glabrous or pubescent. Lemma margins ciliate. Lemma apex emarginate, mucicous or mucronate. Palea 2 -veined. Palea keels ciliate. Apical sterile florets 1 in number, barren, cuneate, 1.2–1.5 mm long. Apical sterile lemmas mucicous or mucronate.

Flower and Fruit. Caryopsis with tardily free pericarp, ellipsoid, isodiametric, trigonous.

Distribution (TDWG). Continent. Africa, Temperate Asia, South America.

Country /Province /State. West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa, Southern Africa. Rwanda, DRC. Eritrea, Ethiopia (inc. Eritrea), Somalia. Kenya, Tanzania, Uganda. Angola, Malawi, Mozambique, Zambia, Zimbabwe. Namibia, Botswana, Limpopo, North-West, Gauteng, Mpumalanga, Swaziland, Free State, Kwazulu-Natal, Lesotho, Northern Cape, Western Cape, Eastern Cape. **Arabian Peninsula.** Oman. **Caribbean, Brazil, Southern South America.** Brazil Northeast, Brazil South. Argentina Northeast, Paraguay.

TDWG4. Entre Rios.

Eustachys petraea (Sw.) Desv. *Nouv. Bull. Soc. Philom.* ii. 189 (1810).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), W.D.Clayton & N.Snow, *Key to Pacific Grasses* (2010).

TYPE from Jamaica. **Basionym or Replaced Name:** *Chloris petraea* Sw. *Prodr.* 25 (1788)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: T: *T. Drummond s.n.*, no date, Jamaica (S; IT: US-80832 (fragm.)).

Recent Synonyms: *Chloris uliginosa* Hack., *Fedde, Repert. Nov. Sp.* 7: 320 (1909).

Illustrations (Books): M.E.Barkworth et al, *Flora of North America north of Mexico Vol 25 Poaceae*, part 2 (2003) (221), F.W.Gould, *The Grasses of Texas* (1975) (334, Fig. 177), A.S.Hitchcock, *Manual of the Grasses of the West Indies* (1936) (125, Fig. 78 as *Chloris*), S.A.Renvoize, *Gramineas de Bolivia* (1998) (302, Fig 62), L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (421, Fig. 96 as *Chloris*), W.Burger, *Flora Costaricensis* 15, Gramineae: *Fieldiana Botany New Series* 4 (1980) (237, Fig 82).

Derivation (Clifford & Bostock 2007): L. that grows amongst rocks. Growing in rocky places.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Stolons present. Basal innovations flabellate. Culms erect, 30–100 cm long, 2–3 mm diam. Culm-nodes glabrous. Leaf-sheaths keeled. Ligule a ciliate membrane, 0.2 mm long. Leaf-blades flat or conduplicate, 6–15 cm long, 4–7 mm wide. Leaf-blade surface glabrous. Leaf-blade margins scabrous. Leaf-blade apex obtuse, apiculate.

Inflorescence. Inflorescence composed of racemes. Racemes 3–8, digitate, unilateral, 4–9 cm long. Rhachis angular. Spikelet packing broadside to rhachis, crowded, regular, 1 -rowed. Spikelets pectinate, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets obovate, laterally compressed, 1.6–2 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pilose.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 0.9–1.3 mm long, 0.8–0.9 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume oblong, 1.1–1.5 mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume apex lobed, 2 -fid, obtuse, awned, 1 -awned, awn 0.3–0.5 mm long.

Florets. Fertile lemma oblate, laterally compressed, 1.6–2 mm long, coriaceous, dark brown, keeled, 3 -veined, 0–3 -veined. Lemma midvein ciliate, hairy below. Lemma margins ciliate, hairy above. Lemma apex acute, muticous or mucronate. Palea 2 -veined. Apical sterile florets 1 in number, barren, cuneate, 1 mm long. Apical sterile lemmas truncate.

Flower and Fruit. Anthers 3, 0.6 mm long.

Distribution (TDWG). Continent. Pacific, North America, South America.

Country /Province /State. Northwestern Pacific, North-central Pacific. Gilbert Is (*). Caroline Is (*), Marianas (*), Marshall Is (*). Hawaii (*). **South-central USA, Southeastern USA, Mexico.** Texas. Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina. Northeast Mexico, Gulf (Mexico), Southwest Mexico, Southeast Mexico. **Mesoamerica, Caribbean, Western South America, Brazil, Southern South America.** Bahamas, Bermuda (& as *Chloris petraea*), Cayman Is (& as *Chloris petraea*), Cuba, Dominican Republic, Haiti, Jamaica (& as *Chloris petraea*), Windward Islands (as *Chloris petraea*), Puerto Rico, Trinidad-Tobago. Bolivia, Colombia. Brazil West Central, Brazil Southeast, Brazil South. Argentina Northeast.

TDWG4. Mato Grosso, Sao Paulo Parana, Catarina, Rio Grande do Sul. Entre Rios. Neuvo Leon, Tamaulipas. Veracruz. Oaxaca. Campeche, Quintana Roo, Tabasco, Yucatan.

Eustachys retusa (Lag.) Kunth. *Rev. Gram.* 1:88 (1829).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online.

TYPE from Uruguay. **Basionym or Replaced Name:** *Chloris retusa* Lag., *Gen. Sp. Pl.* 5 (1816)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: HT: *L. Nee s.n.*, Uruguay: del Cerro y Peqa Blanca (MA; IT:BAA, MO, US-80834 (fragm. & photo)). The locality of the type has been confused. See Molina, *Candollea* 51: 246 (1996) for a discussion..

T: *Nee s.n.*, no date, Argentina: "Hab. in Bonariensi Regno." (MA).

Illustrations (Books): L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982) (421, Fig. 96 as *Chloris*), A.Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (261, Fig. 100 as *Chloris*), A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970) (415, Fig. 107 as *Chloris*), M.N.Correa, *Flora Patagonica Parte III, Gramineae* (1978) (499, Fig. 337), B.Rosengurtt, *Gramineas Uruguayas I* (1970) (234, Fig. 94 as *Chloris*).

Derivation (Clifford & Bostock 2007): *L. retundo*, blunt. Apices of lemmas rounded or notched sometimes with a small mucro.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Basal innovations flabellate. Culms erect, 40–80 cm long. Leaf-sheaths keeled. Ligule a fringe of hairs. Leaf-blades flat or conduplicate, 15–30 cm long, 5–10 mm wide. Leaf-blade apex obtuse, apiculate.

Inflorescence. Inflorescence composed of racemes. Racemes 6–15, digitate, erect, straight, unilateral, 4–10 cm long. Spikelet packing broadside to rachis, crowded, regular. Spikelets pectinate, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets obovate, laterally compressed, 2–2.5 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pilose.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 1.2–1.4 mm long, 0.8 length of upper glume, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume oblong, 1.5–1.7 mm long, 0.66–0.75 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume apex lobed, 2 -fid, obtuse, awned, 1 -awned, awn 0.2–0.3 mm long.

Florets. Fertile lemma ovate, laterally compressed, 2–2.5 mm long, chartaceous, dark brown, keeled, 3 -veined, 0–3 -veined. Lemma margins ciliate, hairy all along. Lemma hairs 0.8–1 mm long. Lemma apex acute, mucronate. Palea 2 -veined. Apical sterile florets 1 in number, barren, oblong, 1.8–2.4 mm long. Apical sterile lemmas truncate.

Distribution (TDWG). Continent. North America, South America.

Country /Province /State. South-central USA, Southeastern USA. Texas. Florida, South Carolina. **Western South America, Brazil, Southern South America.** Bolivia. Brazil Southeast, Brazil South. Argentina Northeast, Argentina Northwest, Chile Central, Paraguay, Uruguay.

TDWG4. Sao Paulo Parana, Catarina, Rio Grande do Sul. Catamarca, Jujuy, La Rioja, Mendoza, Salta, Santiago del Estero. Buenos Aires, Chaco, Cordoba, Corrientes, Entre Rios, Formosa, La Pampa, Santa Fe. Río Negro.

Eustachys swalleniana A.M. Molina. *Candollea*, 51(1): 232 (1996).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Brazil. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Brasil: Rio Grande do Sul: Pelotas, Instituto Agronomico do Sul, 6 Jun 1945, *J. R. Swallen 7287* (HT: PEL).

Illustrations (Books): No illustration found (BKS).

Derivation (Clifford & Bostock 2007): *L. -ana*, indicating connection. In honor of Jason Richard Swallen (1903–1991) United States botanist.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Rhizomes short. Basal innovations intravaginal, flabellate. Culms erect, 26–105 cm long, 2–3 -noded. Culm-internodes elliptical in section. Culm-nodes brown, glabrous. Lateral branches lacking. Leaf-sheaths keeled, striately veined, smooth, glabrous on surface. Ligule a fringe of hairs, 0.2–0.5 mm long. Leaf-blades flat or conduplicate, 6–11 cm long, 3–5 mm wide. Leaf-blade surface glabrous. Leaf-blade margins scabrous. Leaf-blade apex obtuse, apiculate.

Inflorescence. Inflorescence composed of racemes. Racemes 4–6, digitate, unilateral, 5.5–12 cm long. Spikelet packing broadside to rachis, crowded, regular. Spikelets pectinate, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets obovate, laterally compressed, 2–2.5 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus glabrous.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 1.1–1.8 mm long, 0.9 length of upper glume, membranous, without keels, 1 -veined. Lower glume lateral veins absent. Lower glume apex acute. Upper glume oblong, 1.3–2 mm long, 0.8 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume apex emarginate or obtuse, mucronate or awned, 1 -awned, awn subapical, awn 0.4–0.6 mm long.

Florets. Fertile lemma ovate, laterally compressed, 2–2.5 mm long, chartaceous, dark brown, keeled, 3 -veined, 0–3 -veined. Lemma midvein eciliate or ciliolate. Lemma surface pubescent. Lemma margins ciliate. Lemma hairs 0.3 mm long. Lemma apex obtuse. Palea 2 mm long, 2 -veined. Palea keels smooth or scaberulous, adorned above, with 0.5 of their length adorned. Rhachilla extension 0.5–0.8 mm long. Apical sterile florets 1 in number, barren, elliptic, 1.5–2 mm long. Apical sterile lemmas scabrous, obtuse.

Flower and Fruit. Lodicules 2, 0.2 mm long. Anthers 3, 0.6 mm long. Caryopsis with adherent pericarp, trigonous, 1 mm long. Embryo 0.5 length of caryopsis. Hilum punctiform.

Distribution (TDWG). Continent. South America.

Country /Province /State. Brazil and Southern South America. Uruguay.

Eustachys tenera (J. S. Presl) A. Camus. *Rev. Bot. Appliq.* v. 208 (1925).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, S-L Chen et al, *Flora of China* 22 (Poaceae) (2006), J.F.Veldkamp, Poaceae ms (*Flora Malesiana*).

TYPE from Philippines. **Basionym or Replaced Name:** *Cynodon tener* J. Presl, *Reliq. Haenk.* 1(4–5): 291 (1830)

. T:<Type of Basionym>: *vide* TROPICOS and Kew Synonymy Database: HT: *T. Haenke s.n.*, no date, Philippines: Luzon Island {locality almost certainly mistaken, probably from Mexico} (PR; IT: MO-47912, MO-1837549 (line drawing), US-80838 (fragm. ex PR)).

Illustrations (Books): C-C Hsu, *Flora of Taiwan*, Vol 5 (1978) (382 as *E. tener*), C-C Hsu, *Taiwan Grasses* (1975) (as *E. tener*), H.B.Gilliland, *Grasses of Malaya* (1971) (89, Fig 13), H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005) (73, Fig. 69), E.E.Henty, *A Manual of the Grasses of New Guinea* (1969) (as *Chloris*), S-L Chen et al, *Flora of China*, Illustrations, Poaceae (2007) (Fig. 695).

Images: H.B.Gilliland et al., *Flora of Malaya Vol. 3 Grasses* (1971);.

Derivation (Clifford & Bostock 2007): L. thin. Culms slender.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial. Stolons present. Basal innovations flabellate. Culms 20–45 cm long, rooting from lower nodes. Leaf-sheaths 1–3.5 cm long, keeled. Ligule a fringe of hairs. Leaf-blades 1.5–4 cm long, 5 mm wide. Leaf-blade margins scabrous. Leaf-blade apex obtuse.

Inflorescence. Inflorescence composed of racemes. Racemes 3–5, digitate, unilateral, 3–4 cm long. Rhachis angular, scabrous on margins. Spikelet packing broadside to rhachis, crowded, regular, 2 -rowed. Spikelets pectinate, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets obovate, laterally compressed, 1.2 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus pubescent.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 0.8 mm long, 0.8 length of upper glume, membranous, without keels, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume apex acute. Upper glume oblong, 1 mm long, 0.8 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume apex truncate, mucronate.

Florets. Fertile lemma ovate, laterally compressed, 1.2 mm long, chartaceous, dark brown, keeled, 3 -veined, 0–3 -veined. Lemma margins ciliate, hairy all along. Lemma apex obtuse. Palea obovate, 1 mm long, 2 -veined. Palea keels scaberulous. Apical sterile florets 1 in number, barren, elliptic, 0.5 mm long. Apical sterile lemmas obtuse.

Flower and Fruit. Anthers 3, 0.5 mm long.

Distribution (TDWG). Continent. Temperate Asia, Tropical Asia.

Country /Province /State. China, Eastern Asia. Hainan, China Southeast. Taiwan. **Indo-China, Malesia, Papuasia.** Thailand, Vietnam. Malaya, Singapore, Moluccas, Philippines, Sumatra. New Guinea West Papua (Irian Jaya). New Guinea.

TDWG4. Guangdong.

Eustachys uliginosa (Hack.) Herter. *Rev. Sudamer. Bot.* vi. 147 (1940).

Accepted by: R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003) and online, W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006), N.Tsvelev, *Grasses of the Soviet Union* (1983) (as *Chloris*).

TYPE from Uruguay. **Basionym or Replaced Name:** *Chloris uliginosa* Hack., *Fedde, Repert. Nov. Sp.* 7: 320 (1909). T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: Uruguay, Cuarain: Berro 2678 (K iso).

Illustrations (Books): A.Burkat, *Flora Illustrada de Entre Rios (Argentina)*, Pt II, Gramineas (1969) (as *Chloris*), B.Rosengurt, *Gramineas Uruguayas I* (1970) (236, Fig. 9 as *Chloris*).

Derivation (Clifford & Bostock 2007): *L. uligo*, wetness of the earth; -osa, abundance. Growing in swampy places.

Classification. Subfamily Chloridoideae. Tribe: Cynodonteae.

Habit, Vegetative Morphology. Perennial, caespitose. Butt sheaths green or purple. Basal innovations flabellate. Culms erect, 30–100 cm long, 2–3 mm diam., 3–4 -noded. Culm-nodes glabrous. Leaf-sheaths keeled, glabrous on surface. Ligule a ciliate membrane, 0.1–0.2 mm long. Leaf-blades flat or conduplicate, 6–15 cm long, 4–8 mm wide. Leaf-blade midrib keeled beneath. Leaf-blade surface glabrous. Leaf-blade margins smooth or scabrous. Leaf-blade apex obtuse, apiculate.

Inflorescence. Inflorescence composed of racemes. Racemes 3–12, digitate, unilateral, 4–16 cm long, 2–2.5 mm wide. Rhachis angular. Spikelet packing broadside to rhachis, crowded, regular, 1 -rowed. Spikelets pectinate, solitary. Fertile spikelets sessile.

Fertile Spikelets. Spikelets comprising 1 fertile florets, with diminished florets at the apex. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets one-many-flowered - if two-flowered then both fertile or the upper sterile. Spikelets obovate, laterally compressed, 1.6–2 mm long, breaking up at maturity, disarticulating below each fertile floret. Floret callus glabrous.

Glumes. Glumes persistent, dissimilar, shorter than spikelet, thinner than fertile lemma, gaping. Lower glume lanceolate, 0.9–1.3 mm long, 0.5–0.7 length of upper glume, membranous, 1-keeled, 1 -veined. Lower glume primary vein scaberulous. Lower glume lateral veins absent. Lower glume surface puberulous. Lower glume apex acute. Upper glume oblong, 1.1–1.5 mm long, 0.7–0.8 length of adjacent fertile lemma, membranous, without keels, 1 -veined. Upper glume lateral veins absent. Upper glume surface puberulous. Upper glume apex lobed, 2 -fid, obtuse, awned, 1 -awned, awn 0.5–1 mm long.

Florets. Fertile lemma oblate, laterally compressed, gibbous, 1.6–2 mm long, coriaceous, dark brown, shiny, keeled, 3 -veined, 0–3 -veined. Lemma midvein pubescent. Lemma surface glabrous. Lemma margins pubescent. Lemma apex acute, muticous or mucronate. Palea 2 -veined. Apical sterile florets 1 in number, barren, cuneate, 1 mm long. Apical sterile lemmas scabrous, truncate.

Flower and Fruit. Anthers 3, 0.6 mm long.

Distribution (TDWG). Continent. South America.

Country /Province /State. Western South America, Brazil, and Southern South America. Bolivia. Brazil Southeast, Brazil South. Paraguay, Uruguay.

TDWG4. Sao Paulo Parana, Catarina, Rio Grande do Sul. Corrientes, Entre Rios, Misiones.

Exothea abyssinica (Hochst. ex A.Rich.) Anderss. *Nov. Act. Upsal. Ser.* III. ii: 253 (1856).

Accepted by: W.D.Clayton & K.Harman, *GrassBase* (2008) and online, U.Quattrocchi, *CRC World Dictionary of Grasses* (2006).

TYPE from Ethiopia. **Basionym or Replaced Name:** *Anthistiria abyssinica* Hochst. ex A. Rich., *Tent. Fl. Abyss.* 2: 449 (1850)

. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database: IST: *G.H.W. Schimper s.n.*, 26 1837, Ethiopia (US-865412 (fragm.)).

ST: *Quartin Dillon s.n.*, Ethiopia: prope Ocabasa, in regno Tigre (P; IST: K).

ST: *Ant. Petit s.n.*, Ethiopia: in prov. Ouodgerate (P; IST: K).

ST: *Schimper, pl. Schimp. Abyss., sect. I, 407*, 26 Oct 1837, Ethiopia: in regione summa montis Selleuda juxta Adoua (K, L, MO, P).

Illustrations (Books): H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962) (304, Fig. 242), R.M.Phillips, F.T.E.A., *Gramineae* (3(1982):820, Fig. 188), G.V.Pope et al., *Flora Zambesiaca* 10, S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995) (354, Fig. 144), R.Pilger, *Die Natürlichen Pflanzenfamilien* 14e (1940) (171, Fig. 91).

Illustrations (Journals): *Hooker's Icones Plantarum* (t.3089 (1922)).

Derivation (Clifford & Bostock 2007): *L. -ica*, belonging to. From Abyssinia, now Ethiopia.

Classification. Subfamily Panicoideae. Tribe: Andropogoneae. Subtribe ANDROPOGONINAE.

Habit, Vegetative Morphology. Perennial, caespitose. Culms 30–200 cm long, 1–3 mm diam. Leaf-sheath auricles erect, 3–18 mm long. Ligule an eciliate membrane, 3–18 mm long, truncate. Leaf-blades 5–45 cm long, 1–4 mm wide.

Inflorescence. Synflorescence compound, scanty.

Inflorescence composed of racemes, terminal and axillary, subtended by a spatheole. Spatheole linear, 8–12 cm long, scarios. Peduncle scaberulous above. Racemes 2, paired, end to end, 2.5 cm long, bearing few fertile spikelets, bearing 1 fertile spikelets on each. Rhachis fragile at the nodes. Rhachis hairs 2 mm long. Rhachis internodes linear. Rhachis internode tip oblique, flat. Raceme-bases filiform, unequal (the longer measured), 15–25 mm long, glabrous. Spikelets in pairs. Fertile spikelets sessile, 1 in the cluster. Companion sterile spikelets pedicelled, 1 in the cluster. Pedicels present, filiform, ciliate.

Sterile Spikelets. Basal sterile spikelets well-developed, 4 in number (lower raceme), 4 in upper racemes, forming an involucre about the fertile, male, equalling fertile. Basal sterile spikelet glumes glabrous, lower glume muticous.

Companion sterile spikelets well-developed, male, lanceolate, 14–16 mm long, as long as fertile, deciduous with the fertile. Companion sterile spikelet glumes chartaceous, muticous or awned, one glume awned, with 0–10 mm long awn. Companion sterile spikelet lemmas 2, enclosed by glumes.

Fertile Spikelets. Spikelets comprising 1 basal sterile florets, 1 fertile florets, without rachilla extension. Spikelets of 1 fertile floret with or without additional sterile florets. Spikelets two-flowered - the lower floret male or barren, the upper fertile. Spikelets lanceolate, subterete, 12–15 mm long, falling entire, deciduous with accessory branch structures. Spikelet callus linear, 3–4 mm long, pilose, base pungent, attached obliquely. Spikelet callus hairs red.

Glumes. Glumes dissimilar, exceeding apex of florets, firmer than fertile lemma. Lower glume lanceolate, 1 length of spikelet, coriaceous, much thinner above, dark brown, without keels, 9 -veined. Lower glume lateral veins ribbed. Lower glume surface pubescent. Lower glume hairs white or yellow. Lower glume apex dentate, 2 -fid. Upper glume lanceolate, coriaceous, much thinner above, without keels, 3 -veined. Upper glume surface glabrous or pubescent. Upper glume apex obtuse.

Florets. Basal sterile florets 1, barren, without significant palea. Lemma of lower sterile floret oblong, 12–13 mm long, hyaline, 2 -veined, ciliolate on margins, obtuse. Fertile lemma linear, 7 mm long, hyaline, without keel, 3 -veined, 0–3 -veined. Lemma margins ciliolate. Lemma apex dentate, 2 -fid, awned, 1 -awned. Principal lemma awn from a sinus, geniculate, 60–100 mm long overall, with twisted column. Column of lemma awn pubescent. Palea obovate, hyaline. Palea keels ciliate.

Distribution (TDWG). Continent. Africa, Tropical Asia.

Country /Province /State. West-central tropical Africa, Northeast tropical Africa, East tropical Africa, South tropical Africa. Rwanda, DRC. Eritrea, Ethiopia (inc. Eritrea), Sudan. Kenya, Tanzania, Uganda. Malawi, Mozambique, Zambia. **Indo-China.** Vietnam.