

Eriocoma is the currently accepted genus for many species that were previously assigned to *Achnatherum* (Peterson et al. 2019. *Phytokeys* 126: 89-125). The treatment here transfers all *Achnatherum* taxa in the printed Flora 2nd edition to *Eriocoma* and provides the *Achnatherum* combinations in synonymy.

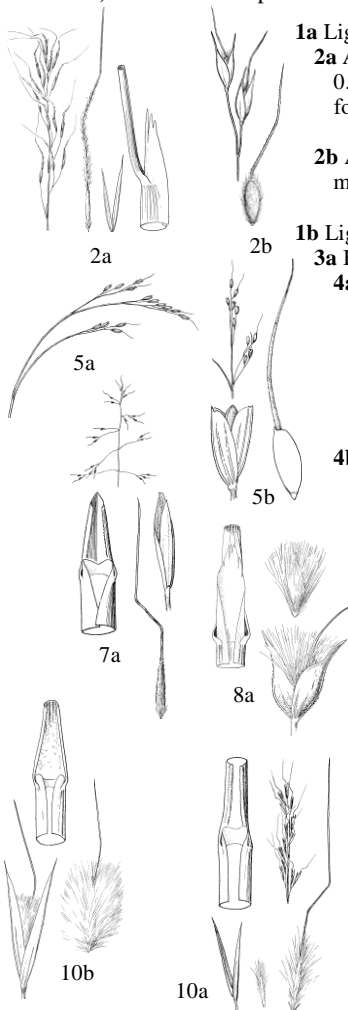
References:

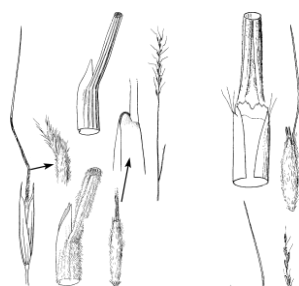
P.M. Peterson, K. Romaschenko, R. J. Soreng, and J. V. Reyna. 2019. A key to the North American genera of Stipeae (Poaceae, Pooideae) with descriptions and taxonomic names for species of *Eriocoma*, *Neotrinia*, *Oloptum*, and five new genera: *Barkworthia*, *×Eriosella*, *Pseudoeriocoma*, *Ptilagrostiella*, and *Thorneochloa*. *Phytokeys* 126: 89-125.

Eriocoma Nutt. Needlegrass; Ricegrass

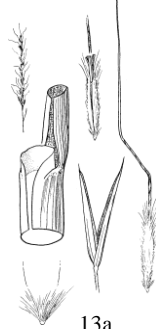
Spikelets 1-fl'd, art above the glumes, borne in open to much-contracted pans; glumes membranous to firm, acute to long-acuminate; flt gen hardened; callus gen hardened, sharp to blunt, hairy to glab; lemma lightly (gen 3–5) nerved, spreading or appressed-hirsute to glab, convolute, prolonged into a slender, twisted and ± bent, persistent or deciduous awn; palea enclosed by the lemma except sometimes at anthesis, slightly to much < the lemma; stamens 3; cespitose pers with hollow (to solid) culms, open sheaths, membranous lig, and non-aur, gen ± involute bls. (Gr. *erio*, woolly, and *koma*, hair, reference uncertain).

The callus in *Eriocoma* extends very nearly to the base of the palea, but callus hairs obscure the junction. When measuring the callus remove the hairs. *Eriocoma* includes most spp. formerly treated in *Achnatherum*, *Stipa*, and *Oryzopsis*; see also *Hesperostipa*, *Nassella*, *Pappostipa*, and *Piptatheropsis*. *Eriocoma occidentalis* (Thurb. ex S. Watson) Romasch. subsp. *occidentalis* is endemic to CA and not included here.

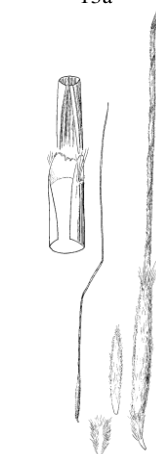
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- 1a** Ligs of upper lvs 3–8 mm; lvs 0.5–2 mm wide; pls e Cas
2a Awns 32–56 mm, first 2 segms with hairs 0.8–2 mm, persistent; lemmas with hairs 0.5–0.8 mm, the back sometimes glabrate distally; sagebr grassl and ponderosa pine for; nc WA to CA and NV, e to sw MT, ID, and UT; Thurber's n. (*A. t.*, *S. t.*)
1 E. thurberiana (Piper) Romasch.
- 2b** Awns 6.5–9 mm, scab, readily deciduous; lemmas evenly hairy with hairs 1.2–2.0 mm; rocky grassl; e ID, sw MT, and WY; contracted r. (*A. c.*, *O. c.*)
2 E. contracta (B.L. Johnson) Romasch.
- 1b** Ligs of upper lvs 0.1–2.5 mm; lvs 0.4–5 mm wide; pls widespread
3a Basal awn segms glab, scab, or with hairs < 0.5 mm; awns persistent or deciduous
4a Lemmas glab, shiny, dark brown, elliptic; pls e Cas
5a Pans drooping, brs flexuous and often diverging; mont in shallow, dry, rocky soil; Crook and Wallowa cos, OR; Wallowa n. (*A. w.*)
3 E. wallowaensis (J.R. Maze & K.A. Robson) Romasch.
- 5b** Pans erect, brs straight, ascending to appressed; dry, rocky soil in sagebr grassl or ponderosa pine for; Kittitas and Yakima cos, WA, and Wasco and Crook cos, OR; Henderson's n. (*A. h.*, *O. h.*)
4 E. hendersonii (Vasey) Romasch.
- 4b** Lemmas ± hairy, dull to shiny, pale or dark, oval or cylindrical; pls widespread
6a Pan brs ascending or spreading to strongly divergent; pls e Cas
7a Awns 15–25 mm, persistent, bent twice; spikelets drooping; sandy and gravelly sites in grassl, open for, and sagebr grassl; Yukon s, e Cas, to ne OR, e to Man, s in RM to n CO; Richardson's n. (*A. r.*, *S. r.*)
5 E. richardsonii (Link) Romasch.
- 7b** Awns 3–9 mm, deciduous, straight or bent once; spikelets not drooping
8a Awns 3–6 mm; lemma hairs 2.5–6 mm; well-drained, often sandy soils; Yukon s, e Cas, to s CA and n Mex, e to Gr Pl; Indian r. (*A. h.*, *O. h.*)
6 E. hymenoides (Roem. & Schult.) Romasch.
- 8b** Awns 6.5–9 mm; lemma hairs 1.2–2 mm (see lead 2b)
2 E. contracta (B.L. Johnson) Romasch.
- 6b** Pan brs appressed to strongly ascending; pls widespread
9a Longest lemma hairs > 2 mm
10a Awns persistent, 13–15 mm, bent twice; rocky soil in sagebr flats to alp ridges; c ID to se OR and CA, e to sw MT, WY, and CO; pinewoods n. (*A. p.*, *S. p.*)
7 E. pinetorum (M.E. Jones) Romasch.
- 10b** Awns rapidly deciduous, 4–11 mm, straight or bent once; rocky flats and slopes, often in sagebr; OR s, e Cas, to CA and NV, e to ID; Webber's n. (*A. w.*, *O. w.*, *S. w.*)
8 E. webberi (Thurb.) Romasch.
- 9b** Longest lemma hairs ≤ 2 mm



12a



13a



15a



16a



11a



14a



17a

11a Awns 5–6 mm, rapidly deciduous, bent once; flts 2.5–3.5 mm; rocky slopes and ridges, often with low sagebr at moderate elev; c and e ID and w WY; Swallen's n. (*A. s.*, *O. s.*)

9 ***E. swallenii*** (C.L. Hitchc. & Spellenb.) Romasch.

11b Awns 12–55 mm, persistent, bent twice; flts 4.5–7.5 mm

12a Lemmas with a thick, stiff apical lobe ca 0.1 mm; paleas 75–100% as long as the lemmas; upper ligs to 2.5 mm; flts slightly laterally compressed; grassy balds, upland prairie, sagebr grassl, ponderosa pine for, foothills to mont; s BC s, both sides Cas, to CA, NV, and Mex, e to ID and UT; Lemmon's n. (*A. l.* and *S. l.* vars. *l.*, *pubescens*); ours subsp. **lemmonii**

10 ***E. lemmonii*** (Vasey) Romasch.

12b Lemma apical lobe thin, membranous, 0.1–0.8 mm; paleas 33–90% as long as lemmas; upper ligs to 1.5(–2) mm; flts round in cross-section.

13a Paleas 75–80(–90)% as long as the lemmas; palea hairs exceeding palea apices; bls 0.5–2 mm wide; awns 12–25 mm; meadows and dry slopes, sagebr flats to subalp ridges; c ID and s MT to s CA, e to WY, CO, and NM; Letterman's n. (*A. l.*, *S. l.*)

11 ***E. lettermanii*** (Vasey) Romasch.

13b Paleas 33–66% as long as the lemmas; palea hairs usually not exceeding palea apices; bls (0.5–)1.2–5 mm wide; awns 19–45 mm

14a Callus blunt, glab area on dorsal side ca as long as wide with a straight to rounded boundary between glab tip and hairy portion; lvs 1.2–5 mm wide; moist to mesic, mont to subalp meadows and open for; widespread in our area except in sw WA and nw OR; Yukon to CA, e to Sask, SD, and CO; Dore's n. (*A. n.* var. *d.*, *S. n.* var. *d.*, *S. occidentalis* var. *minor*); pls keyed here are subsp. **dorei** (Barkworth & J.R. Maze) Romasch.

12 ***E. nelsonii*** (Scribn.) Romasch.

14b Callus sharp, the glab area on the dorsal side longer than wide with an acute boundary between the glab tip and the hairy portion; lvs 0.8–5 mm wide; pls in and e of Cas

15a Lvs 1.2–5 mm wide; lower awn segm scab; callus not quite as sharp with a shorter extension of the glab area into the hairy part of the callus; moist to mesic, mont to subalp meadows and open for; WA Cas to OR, e to MT, and NV; Nelson's n. (*A. n.*, *S. columbiana* var. *n.*, *S. occidentalis* var. *n.*); pls keyed here are subsp. **nelsonii**

12 ***E. nelsonii*** (Scribn.) Romasch.

15b Lvs 0.8–2 mm wide; lower awn segm scab to short-hairy; callus sharper, with a longer extension of the glab area into the hairy part of the callus; grassl, sagebr des, and conif for, lowl to mont; WA Cas to CA, e to sw MT, WY, and NV; CA n. (*A. o.* var. *c.*, *S. c.*, *S. o.* var. *c.*); pls keyed here are subsp. **californica** (Merr. & Burt Davy) Romasch.

13 ***E. occidentalis*** (Thurb. ex S. Watson) Romasch.

3b Basal awn segms with spreading hairs, at least some hairs 0.5–8 mm (check several awns; if in doubt, take this lead); awns persistent

16a Apical lemma hairs \leq lower awn hairs; lower awn segm hairs gradually and evenly becoming shorter toward the first bend; lvs 0.3–2 mm wide; sagebr des and conif for; s BC s, chiefly e Cas, to CA, e to WY and NV; common w n. (*A. o.* ssp. *p.*, *S. o.* var. *p.*, *S. viridula* var. *p.*); pls keyed here are subsp. **pubescens** (Vasey) Romasch.

13 ***E. occidentalis*** (Thurb. ex S. Watson) Romasch.

16b Apical lemma hairs longer than most of lower awn hairs; lower awn segm hairs varying in length, with longer hairs scattered among shorter hairs, the hairs not gradually and evenly becoming shorter toward first bend; lvs 0.8–3 mm wide

17a Callus 0.5–0.7 mm, glab area on dorsal side rounded to acute distally; palea 50–75% as long as the lemma; lvs 1–3 mm wide; mont to subalp sagebr meadows and open for; e Cas in our area, c WA to CA, e to WY and UT; NV n. (*A. n.*, *S. n.*)

14 ***E. nevadensis*** (B.L. Johnson) Romasch.

17b Callus 0.8–1.2 mm, glab area on dorsal side narrow and acute distally; palea 40–60% as long as the lemma; lvs 0.8–2 mm wide (see lead 15b, subsp. *californicum*)

13 ***E. occidentalis*** (Thurb. ex S. Watson) Romasch.