

Treatment revised to include *Agrostis swalalahas*, a newly (2023) described species from northwestern OR.

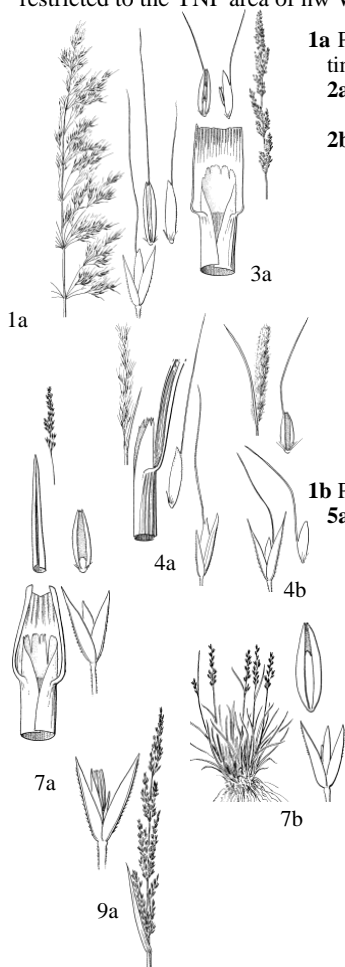
References: Otting, N. and B.L. Wilson. 2023 *Agrostis swalalahas*, a grass endemic to the mountains of northwest Oregon, U.S.A. J. Bot. Res. Inst. Texas 17(1): 9–19.

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### Agrostis L. Bentgrass

Spikelets 1-fl'd, rather small, art above the glumes, in open to contracted pans; glumes acute to aristate, 1-nerved, gen scab on the keel; lemmas < glumes, thinner than the glumes, (3)5-nerved, the nerves often projecting as minute teeth, the midnerve sometimes extending into a fragile to stiff, straight to bent and twisted awn that arises from near base to near tip of lemma; callus gen minutely hairy, rarely glab, rarely with dense hairs to half as long as lemma; palea lacking, rudimentary, or well-developed and ca 67% as long as lemma; rachilla not prolonged beyond the base of the flt; stamens 3; ann or gen per, cespitose to stoloniferous or rhizomatous, culms hollow, sheaths open, lig's membranous and ± puberulent, bls flat to folded or involute, rolled in the bud. (Gr name for some grass or pasture). See also *Apera* and *Podagrostis*.

*Apera* and *Podagrostis* spp. previously included in *Agrostis* are included in this key. *Agrostis rossiae* Vasey is restricted to the YNP area of nw WY and does not occur in our area.



**1a** Pls ann; awns often 2–5 × as long as lemmas (sometimes lacking or shorter than 2 times as long as lemmas in *A. exarata*)

**2a** Infl open, brs naked at the base for 5+ mm (see p. 777)

**Apera spica-venti** (L.) P. Beauv.

**2b** Infl ± contracted, brs usually spikelet-bearing to the base and hidden by the spikelets

**3a** Awns 0–3.5 mm, < 2 × as long as lemmas; lowl to mont, moist to wet shores, ditches, meadows, shrublands, open for; AK to Mex, e to Sask, NE, TX; also in Kamchatka and Kuril Is, Russia; spike b. (*A. e. var. monolepsis*, *A. e. subsp. minor*, *A. longiligula*)

**1 A. exarata** Trin.

**3b** Awns (0–)3–12 mm, 2–5 × as long as lemmas

**4a** Glumes unequal, upper 2–2.5 mm, lower 1–2.2 mm; lemmas firm; paleas 75–100% as long as lemmas; rachilla prolonged 0.2–0.6 mm beyond base of flt (see p. 777)

**Apera interrupta** (L.) P. Beauv.

**4b** Glumes subequal, 2.5–7 mm; lemmas delicate; paleas 0–15% as long as the lemmas; rachilla not prolonged; seasonally wet areas on thin, rocky or sandy substrates, vernal pools, cliffs, serpentine areas; VI to s CA, in and w of Cas; small-lf b. (*A. exarata* var. *m.*)

**2 A. microphylla** Steud.

**1b** Pls per; awns lacking or to 2 × as long as lemmas

**5a** Pans dense at anthesis, often ± spikelike; lower brs usually shorter than 3(–5) cm, appressed to ascending, usually hidden by the spikelets

**6a** Lf bls 0.5–2 mm wide, usually inrolled or folded; infl dark reddish, purplish, or blackish, 0.2–1.2(–2) cm wide; mont to alp

**7a** Paleas 0–0.2 mm, much shorter than lemmas; lemmas delicate; wet subalp and alp seeps and meadows; BC to CA, e to RM; mt b. **3 A. variabilis** Rydb.

**7b** Paleas 0.9–1.6 mm, ca 75% as long as lemma; lemmas firm (see p. 818)

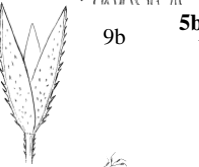
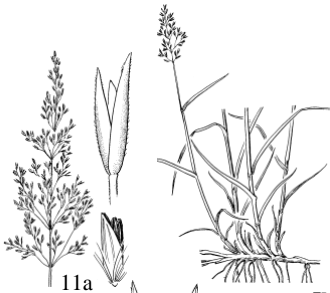
**Podagrostis humilis** (Vasey) Björkman

**6b** Lf bls usually 2–7 mm wide, usually flat in life (may roll or fold if wilted before pressing); infl green to light brown to dark purplish, 0.4–4(–6) cm wide; lowl to subalp

**8a** Lower infl brs 2–5 cm; pls stoloniferous or rhizomatous; anthers 0.7–2 mm

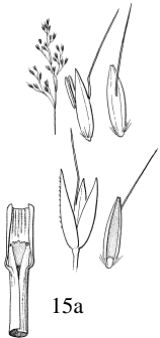
**9a** Pls stoloniferous; paleas 0.7–1.4 mm; lakesides, stream banks, marshes, and disturbed moist ditches; low to moderate elev; ours Eurasian intro, but some n populations may be native to our area; circumboreal, subarctic to Mex; creeping b. (*A. alba* vars. *palustris*, *s.*)

**4 A. stolonifera** L.



13a

14a



15a

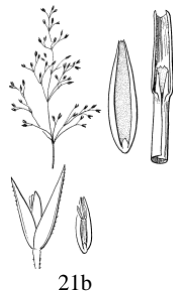


17a

20a



21a



21b

Illustration  
needed

20b

**9b** Pls rhizomatous; paleas 0–0.2 mm; coastal sands and cliffs, meadows, open, dry lowl to subalp for; BC to Baja Cal and Mex, e to w MT and UT; dune b. (*A. diegoensis*) 5 **A. pallens** Trin.

**8b** Lower infl brs 0.3–2(–5) cm; pls cespitose, sometimes short-rhizomatous if buried in sand; anthers 0.3–0.6 mm

**10a** Habitat strictly coastal; back of glume fine-scab throughout; palea 0.5–0.7 mm and ca 33% as long as the lemma; lig mostly 1.5–3 mm; sandy soils and cliffs near coast; nw OR to CA; CA b. 6 **A. densiflora** Vasey

**10b** Habitat various including coastal; back of glume glab or ± scab; palea 0–0.5 mm, ca 20% as long as the lemma; lig usually 2.5–4(–10) mm (see lead 3a) 1 **A. exarata** Trin.

**5b** Pans open to diffuse at anthesis, or somewhat contracted but not spikelike, lower brs 0.5–12 cm, erect to spreading, readily visible

**11a** Callus hairs prominent, longer hairs 1–2 mm; paleas lacking; anthers 1.5–2.3 mm; open oak and conif for; OR s, w Cas, to CA; Hall's b. 7 **A. hallii** Vasey

**11b** Callus hairs inconspicuous, to 0.3(–0.6) mm; paleas absent or present; anthers 0.3–2.3 mm

**12a** Longer awns 4+ mm; anthers 0.8–1.3 mm

**13a** Paleas 0.6–1.1 mm, 50%+ as long as the lemmas; lemmas on same pl awned or awnless, awns gen present in the terminal spikelet of a br; disturbed sites, roadsides, gravel bars; s European intro; s VI s, w Cas, to CA; highland b., dryland browntop 8 **A. castellana** Boiss. & Reut.

**13b** Paleas 0–0.2 mm, much < lemmas; awns present on all lemmas

**14a** Infls 10–25 × 3.5–11 cm wide; lemmas 2.5–3 mm; lvs 3–5 mm wide; on moist rocks; CRG, Hood River and Multnomah cos, OR; Howell's b. 9 **A. howellii** Scribn.

**14b** Infls (2–)3–10 × 1–7 cm; lemmas 1–2.6 mm; lvs 0.5–3 mm wide; pls in mts of n WA and n, or w of Cas

**15a** Pls subalp to alp; pls cespitose; riverbanks, gravel bars, grassl, rocky slopes; circumboreal, s to BC and n WA; n b. (*A. borealis*) 10 **A. mertensii** Trin.

**15b** Pls lowl to mont in disturbed sites; pls cespitose to stoloniferous; lawns, golf greens, roadsides, and open ground; uncommon Eurasian intro; s BC s, w Cas, to OR, also in e N Am; velvet b. 11 **A. canina** L.

**12b** Longer awns 0–5 mm; anthers 0.3–2.3 mm

**16a** Anthers 0.3–0.8 mm long, much smaller than the lemma

**17a** Lemmas firm, with prominent veins; paleas 75–100% as long as lemmas; pls mont to alp (see p. 818) **Podagrostis thurberiana** (Hitchc.) Hultén

**17b** Lemmas delicate, without prominent veins; paleas lacking or much shorter than lemmas; pls of various habitats

**18a** Pls subalp to alp in n WA; awns (2–)3–4.4 mm, usually bent (see lead 15a) 10 **A. mertensii** Trin.

**18b** Pls lowl to alp, widespread; awns 0–3 mm, straight when present

**19a** Wider lf bls gen 2–7 mm wide, 5–30 cm long, flat; lvs mostly cauline; pls ± rhizomatous

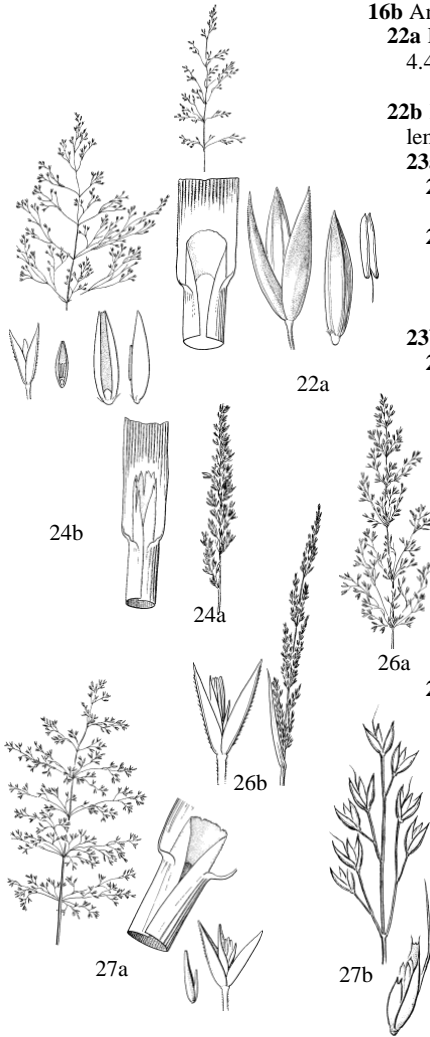
**20a** Lemma awns usually absent, if present < 2.7 mm, usually straight; longest pan brs 2–5 cm; caryopses 1.0–1.5 mm; wide-spread (see lead 9a) 5 **A. pallens** Trin

**20b** Lemma awns (3–)3.6–5 mm, geniculate; longest pan brs 4–8.5 cm; caryopses 1.5–2 mm; Coast Range mts of nw OR 12 **A. swalalaho** Otting

**19b** Wider lf bls to 2 mm wide, 1–14 cm long, flat or involute; lvs mostly basal; pls cespitose

**21a** Lower pan brs 4–12 cm; pan often detaching at the base at maturity forming a tumbleweed; disturbed sites in grassl, open for, marshes, and lakesides, often along roads and ditches; AK to Mex, e to Atl; also in nw Asia; ticklegrass, rough b. (*A. hyemalis* misapplied) 13 **A. scabra** Willd.

**21b** Lower pan brs 1–4 cm; pan not detaching at maturity, not forming a tumbleweed; alp and subalp meadows along wet seepage areas and bogs, wet openings in conif for; BC to CA, e to WY and NM; ID redtop 14 **A. idahoensis** Nash



**16b** Anthers (0.8–)1–2.3 mm, ± filling the lemma

**22a** Rachilla prolonged 0.5–1.9 mm beyond the base of the flt; glumes 2.3–4.4 mm; lemmas firm; paleas 2–3 mm; pls of n WA (see p. 818)

**Podagrostis aequivalvis** (Trin.) Scribn. & Merr

**22b** Rachilla not prolonged beyond the base of the flt; glumes 1.7–3.6 mm; lemmas delicate; paleas 0–1.4 mm; pls widespread

**23a** Paleas 0–0.2 mm, < 40% as long as the lemmas; native spp.

**24a** Pls ± rhizomatous; primary brs of the infl br from below midlength, spikelet-bearing to the base (see lead 9b) **5 A. pallens** Trin.

**24b** Pls cespitose; primary brs of the infl br mainly above midlength, spikelet-bearing on the distal half only; stream and lake margins, damp woodl and meadows; BC to CA, e to MT, WY, NV; OR redtop

**15 A. oregonensis** Vasey

**23b** Paleas 0.6–1.4 mm, 40–67% as long as the lemmas; intro spp.

**25a** Ligs of the upper lvs longer than wide, 2–7.5 mm; some lower pan brs often spikelet-bearing to the base

**26a** Infls usually open after anthesis, usually reddish (except green to tan in shade), 8–30 cm; longest lower pan brs 4–9 cm; shoots erect to decumbent-based; rhizomes present, stolons absent; culms 20–120 cm; wet or dry pastures, meadows, and roadsides, ditches, low to moderate elev; Eurasian intro, invasive; AK to Mex, e across N Am, Greenl; redtop (*A. alba* var. *a.*, *A. stolonifera* var. *a.*, *A. s.* subsp. *g.*)

**16 A. gigantea** Roth

**26b** Infls usually contracted after anthesis, usually light green to tan, 3–20 cm; longest lower pan brs 2–6 cm; shoots gen sprawling; stolons present, rhizomes absent; culms 8–60 cm (see lead 9a)

**4 A. stolonifera** L.

**25b** Ligs of the upper lvs usually shorter than wide, 0.3–3 mm; lower pan brs with spikelets confined to the distal 30–50%

**27a** Callus glab or with a few hairs to 0.1 mm; pans erect, 3–20 cm; awns rarely present, to 2 mm; lemmas glab; lawns, roadsides, disturbed areas, invasive in prairies; European intro; AK to CA, e to RM and Gr Pl, also in e N Am; colonial b., browntop (*A. tenuis*)

**17 A. capillaris** L.

**27b** Callus hairy, hairs to 0.6 mm; pans somewhat curved, 10–30 cm; lemmas on same pl awned or awnless, awns gen present in the terminal spikelet of a br, to 5 mm; lemmas occ pubescent on the lower half (see lead 13a)

**8 A. castellana** Boiss. & Reut.