

The Jepson Manual

Higher Plants of California

James C. Hickman, Editor



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ANTENNARIA PUSSY-TOES

G. Ledyard Stebbins & Randall J. Bayer

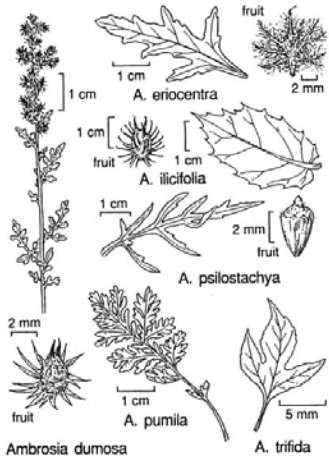
Per, often matted, dioecious; staminate pls gen present. **LVS** alternate, entire, gen \pm tomentose. **INFL**: heads discoid or disciform, 1 or in cyme-like clusters; phyllaries many in several series, papery or membranous (staminate wider, more conspicuous); receptacle naked. **STAMINATE FLS** 2–5 mm; corollas white, yellow, or red; pappus bristle tips gen enlarged. **PISTILLATE FLS** 2–10 mm; corollas barely lobed, white, yellow or red. **FR** 0.5–3.5 mm, \pm elliptic; pappus bristles many, soft, weakly barbed. \pm 40 spp.: Am, n Eurasia. (Latin: antenna) [Bayer 1990 Can J Bot 68:1389–1397 & Madroño 37:171–183] Many races reproduce by asexual seeds, their populations entirely pistillate pls.

1. Heads gen 1(–3) per fl st
2. St 5–12 cm; lvs thick, green above, tips notched *A. suffrutescens*
- 2' St < 4 cm; lvs thin, gray-tomentose above, tips acute
3. Pl without stolons *A. dimorpha*
- 3' Pl bearing long, slender, \pm lfless stolons *A. flagellaris*
- 1' Heads 3–many per fl st
4. Pl without stolons, not forming mats
5. Lvs cauline, \pm equal; lower involucre densely tomentose *A. geyeri*
- 5' Lvs basal and cauline, reduced upward; involucre \pm glabrous
6. Lower lvs 7–20 mm wide; sts 18–40 cm; phyllaries white or cream-colored, unequal *A. argentea*
- 6' Lower lvs 2–5 mm wide; sts 10–25 cm; phyllaries straw-colored or pale, \pm equal *A. luzuloides*
- 4' Pl with stolons, forming mats
7. Rosette lvs elliptic, green above; infl raceme- or panicle-like, main axis 3–11 cm; peduncles 10–30 mm; infl finely glandular *A. racemosa*
- 7' Rosette lvs oblanceolate to spoon-shaped; infl cyme-like, main axis \pm 0; peduncles < 5 mm; infl glandular or not
8. Rosette lvs green or very lightly tomentose above, 1–3-veined
9. Rosette lvs > 6 mm wide, 1–3-veined; cauline lvs 20–40 mm; infl not glandular; NW *A. howellii* ssp. *howellii*
- 9' Rosette lvs < or = 6 mm wide, 1-veined; cauline lvs 7–16 mm; infl gen glandular; SnBr *A. marginata*
- 8' Rosette lvs gray-tomentose above, 1-veined
10. Phyllaries dark brown to black; sts 3–13 cm
11. Lowest cauline lf > 11 mm; herbage gen not glandular; pistillate corolla > 3 mm in fr; staminate corolla gen > 2.7 mm in fl *A. media*
- 11' Lowest cauline lf < or = 11 mm; herbage gen glandular; pistillate corolla < or = 3 mm in fr; staminate corolla gen < or = 2.8 mm in fl *A. pulchella*
- 10' Phyllaries white to rose or pale brown; sts 6–40 mm
12. Phyllaries white-tipped with a prominent blackish brown spot near base of scarious part *A. corymbosa*
- 12' Phyllaries white, rose, straw-colored or (paler) brown, not dark-spotted near base
13. Stolons slightly woody, ascending; phyllaries pale yellow to pale brown, tips blunt; staminate pls present — n SNH *A. umbrinella*
- 13' Stolons not woody, horizontal or ascending; phyllaries various colors, tips acute; staminate pls \pm 0
14. Longest lf of fl rosettes < 20 mm; phyllaries sometimes brown ssp. *rosea*
- 14' Longest lf of fl rosettes > 20 mm; phyllaries gen not brown ssp. *rosea*

- A. argentea* Benth. (p. 199) STS 18–40 cm, from branched caudex; stolons 0. LVS: basal 20–50 mm, oblanceolate to elliptic, 1–3-veined, ± gray-tomentose; cauline 15–45 mm, lanceolate. INFL: heads 10–75; involucre 4–5 mm, ± glabrous; phyllaries wide, acute, whitish. STAMINATE FLS: corollas 2.5–3.5 mm. PISTILLATE FLS: corollas 3–4 mm. FR 1–1.5 mm, glandular; pappus 3–4 mm. $2n=28$. Dry coniferous forest; 800–2000 m. KR, NCoRH, CaRH, MP; OR. ☉TRY.
- A. corymbosa* E. Nelson (p. 199) STS 6–15 cm, slender; stolons horizontal, 1–10 cm. LVS: basal 18–22 mm, spoon-shaped, 1-veined, thin, ± gray-tomentose; cauline 8–13 mm. INFL: heads 3–7; involucre 4–5.3 mm, densely hairy below; phyllaries wide, tips blunt (staminate) or acute (pistillate), white, distinctly spotted blackish brown near base. STAMINATE FLS: corollas 2–3.2 mm. PISTILLATE FLS: corollas 2.5–3.5 mm. FR 0.5–1 mm, slightly papillate; pappus 3.5–4.5 mm. $2n=28$. Moist meadows, stream-sides; 1900–3200 m. SNH; to OR, sw Can, MT, WY, Colorado. ☉TRY.
- A. dimorpha* (Nutt.) Torrey & A. Gray (p. 199) STS < 4 cm, caespitose from much-branched caudex; stolons 0. LVS basal, 8–11 mm, linear to narrowly spoon-shaped, 1-veined, ± gray-tomentose. INFL: head 1; involucre 6–8 mm (staminate) or 10–11 mm (pistillate), base hairy; phyllaries narrow, acute-acuminate, dingy brown. STAMINATE FLS: corollas 3–5 mm; pappus bristle tips slender. PISTILLATE FLS: corollas 8–10 mm. FR 2–3.5 mm, hairy; pappus 10–12 mm. $2n=28,56$. Dry places; 800–2400 m. KR, NCoRH, SNH, TR, GB; to sw Can, MT, WY, NE.
- A. flagellaris* (A. Gray) A. Gray STOLONIFEROUS PUSSY-TOES STS < 1.5 cm, from slender caudex; stolons 3–10 cm, slender, fless exc tip. LVS basal, 16–18 mm, linear-oblanceolate, 1-veined, ± gray-tomentose. INFL: head 1; involucre 6–7 mm (staminate) or 7–9 mm (pistillate), base hairy; phyllaries wide, tips acute, brown to blackish or whitish. STAMINATE FLS: corollas 3–4.5 mm; pappus bristle tips slender. PISTILLATE FLS: corollas 5–7 mm. FR 2–3 mm, papillate; pappus 6–8 mm. $2n=28$. UNCOMMON. Seasonally moist sagebrush scrub; 1750 m. MP; to WA, ID, WY, NV.
- A. geyeri* A. Gray (p. 199) STS 3–14 cm; base woody, branched; stolons 0. LVS cauline, 11–35 mm, linear-lanceolate, 1-veined, ± gray-tomentose. INFL: heads 3–25; involucre 6–8 mm, densely tomentose below; phyllaries wide, upper part red to pink, light brown, or white, tips blunt (staminate) or acute (pistillate). STAMINATE FLS: corollas 3–4.5 mm; pappus bristle tips slender. PISTILLATE FLS: corollas 5–6 mm. FR 2–2.5 mm, hairy, papillate; pappus 6–7 mm. $2n=28$. Dry, open woods, shrubland; 900–2400 m. KR, NCoRH, n SNH, MP; to WA, NV. ☉DRN,SUN:(1–3,7,15–17);DFCLT.
- A. howellii* E. Greene ssp. *howellii* Pls pistillate. STS 15–30 cm; stolons 1–4 cm. LVS: basal 25–40 mm, oblanceolate to spoon-shaped, 1–3-veined, green above, tomentose below; cauline 20–40 mm, linear. INFL: heads 5–12; involucre 6–7.5 mm, base hairy; phyllaries narrow, acute, upper part light brown to white. FLS: corollas 5–6 mm. FR 1.5–2 mm, papillate; pappus 6–8 mm. $2n=56,84$. Open, pine woods, rocky slopes; 1300–2000 m. KR; to w Can, MT, SD. [*A. neglecta* E. Greene var. *h. Cronq.*; *A. neodioica* E. Greene ssp. *h.* (E. Greene) R. Bayer] ☉DRN,IRR:1–3,6,7,14–16&SUN:4,5,17.
- A. luzuloides* Torrey & A. Gray STS 7–25 cm, from partly woody caudex; stolons 0. LVS: basal 18–45 mm, linear to spoon-shaped, 1–3-veined, ± gray-tomentose; cauline 12–45 mm. INFL: heads 8–30; involucre 4–5 mm, narrow, glabrous; phyllaries narrow, acute, pale brown to whitish. STAMINATE FLS: corollas 2–3.5 mm. PISTILLATE FLS: corollas 2.5–4 mm. FR 1–2 mm, papillate; pappus 2.5–4 mm. $2n=28$. Dry, open slopes, sagebrush scrub; 1300–1900 m. n SNH, MP; to B.C., MT, Colorado, NV. [*A. microcephala* A. Gray]
- A. marginata* E. Greene Pls pistillate (in CA). STS 15–18 cm; stolons horizontal, 2–7 cm. LVS: basal 15–20 mm, spoon-shaped, 1-veined, green above with white-woolly margins, gray-tomentose below; cauline 7–16 mm, linear. INFL: heads 5–8; involucre 5–7 mm, sparsely hairy at base; phyllaries wide, tips acuminate, upper part white. FLS: corollas 4.5–6.5 mm. FR 0.8–2 mm, papillate; pappus 5.5–8.5 mm. $2n=28,56,84,112,140$. Uncommon. Dry woods; ± 2150 m. SnBr (s Fork Santa Ana River); to Colorado, NM.
- A. media* E. Greene (p. 199) STS 5–13 cm; stolons many, matted. LVS: basal 6–19 mm, ± linear to spoon-shaped, 1-veined, densely woolly; cauline 5–20 mm, linear. INFL: heads 2–7; involucre 4–8 mm, base woolly; phyllaries narrow and acute (pistillate) or wide and blunt (staminate), upper part dark brownish black. STAMINATE FLS: corollas 2.8–4.5 mm. PISTILLATE FLS: corollas 3–4.5 mm. FR 0.6–1.6 mm, papillate or smooth; pappus 4–5.5 mm. $2n=56,98,112$. High meadows, snow basins, ridges; 1800–3900 m. KR, NCoRH, CaRH, SNH, SnBr, W&I; to sw Can, MT, Colorado, NM. [*A. alpina* (L.) Gaertner var. *m.* (E. Greene) Jepson] ☉DRN,IRR,SUN:1–3,7,14–17;DFCLT.
- A. pulchella* E. Greene BEAUTIFUL PUSSY-TOES STS 3–12 cm; stolons many, matted. LVS: basal 6–12 mm, ± linear to spoon-shaped, 1-veined, densely woolly, often purple-glandular; cauline 3–11 mm, linear. INFL: heads 4–6; involucre 3.5–5 mm, base woolly; phyllaries narrow and acute (pistillate) or wide and blunt (staminate), upper part gen dark brownish black (to whitish at very tip). STAMINATE FLS: corollas 1.9–2.8. PISTILLATE FLS: corollas 2–3 mm. FR 0.7–1.3 mm, papillate or smooth; pappus 2.5–3.5. $2n=28$. UNCOMMON. High meadows, snow basins, ridges; 2800–3700 m. SNH. [*A. alpina* (L.) Gaertner var. *scabra* Jepson]
- A. racemosa* Hook. STS 12–50 cm, glandular above; stolons horizontal, 3–8 cm. LVS: basal 30–100 mm, elliptic, 3-veined, green above, tomentose below; cauline 10–30 mm. INFL: heads 3–12; cluster ± raceme-like; peduncles 10–30 mm; involucre 4–9 mm (staminate < pistillate), wide, blunt or acute, finely glandular, upper part white to light brown. STAMINATE FLS: corollas 3–4 mm; pappus bristle tips slender. PISTILLATE FLS: corollas 3.5–5.5 mm. FR 1–1.5 mm, barely papillate; pappus 4.5–7 mm. $2n=28$. Montane forest; 1200–2000 m. KR; to sw Can, SD, WY.
- A. rosea* E. Greene Pls gen all pistillate. STS 9–40 cm; stolons short, horizontal or ascending. LVS: basal 8–40 mm, spoon- to wedge-shaped, 1-veined, ± gray-tomentose; cauline 6–36 mm. INFL: heads 3–16; involucre 3.5–7.5 mm, base hairy; phyllaries wide, acute, tips white, rose, yellowish, or brownish. PISTILLATE FLS: corollas 2.5–5.5 mm. FR 0.7–1.8 mm, papillate or smooth; pappus 3.5–6.5 mm. $2n=42,56,70$. Woods, meadow edges, rock barrens, dry ridges; 1200–3700 m. KR, CaRH, SNH, SnGb, SnBr, SnJt, GB; to AK, e Can, NM. [*A. microphylla* Rydb. misapplied, in part] Highly variable; ssp. intergrade extensively.
- ssp. *confinis* (E. Greene) R. Bayer (p. 199) STS 9–25 cm; stolons decumbent, 15–45 mm. LVS: basal 8–20 mm; cauline 6–20 mm. INFL: heads 4–11; involucre 4–6.5 mm; phyllaries often brown. FL: corollas 2.5–4 mm. FR: pappus 3.5–5 mm. Habitat and range of sp.
- ssp. *rosea* STS 10–40 cm; stolons decumbent, 20–70 mm. LVS: basal 20–40 mm; cauline 8–36 mm. INFL: heads 6–20; involucre 5–8 mm; phyllaries not brown. FL: corollas 3–4.5 mm. FR: pappus 4–6 mm. Habitats and range of sp. ☉DRN,IRR,SUN:1–3,6,7,15–17;DFCLT.
- A. suffrutescens* E. Greene EVERGREEN EVERLASTING STS many, 5–12 cm, densely tufted, woody at base; stolons 0. LVS dense, 5–12 mm, spoon-shaped, evergreen, 1-veined, green above, tomentose below; tips notched. INFL: head 1; involucre 5–9 mm (staminate) or 10–15 mm (pistillate), woolly and finely glandular at base; phyllaries wide, blunt or acute, greenish yellow below, upper part white. STAMINATE FLS: corollas 4–5 mm. PISTILLATE FLS: corollas 5–8 mm. FR 1–2 mm, papillate; pappus 7–9 mm. $2n=28$. UNCOMMON. Dry, open coniferous woods, serpentine barrens; 500–1600 m. KR, NCoRH; OR. ☉DRN,IRR,SUN:1,5–7,15–17;DFCLT.
- A. umbrinella* Rydb. STS 7–16 cm; base ± woody; stolons or sterile shoots ascending, slightly woody. LVS: basal 10–17 mm, spoon- to wedge-shaped, 1-veined, ± gray-tomentose; cauline 8–18 mm. INFL: heads 3–8; involucre 3–6.5 mm, base woolly; phyllaries narrow and acute (pistillate) or wide and blunt (staminate), upper part whitish to pale brownish. STAMINATE FLS: corollas

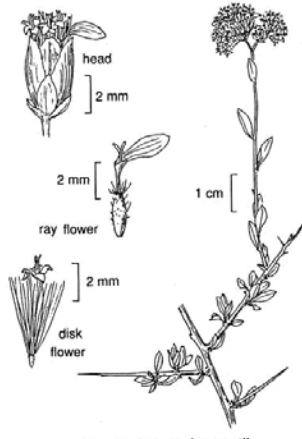
198 (D) **Asteraceae** (*Antennaria* – *Arctotheca*)

2.5–3.5 mm. **PISTILLATE FLS:** corollas 2.5–3.5 mm. **FR** 0.5–1.2 mm, glabrous; pappus 3–5 mm. $2n=28,56$. Uncommon. Dry sagebrush scrub, open yellow-pine forest; 1800–2000 m. n SNH (Plumas Co.); to sw Can, MT, Colorado, NV.



Ambrosia dumosa

A. trifida

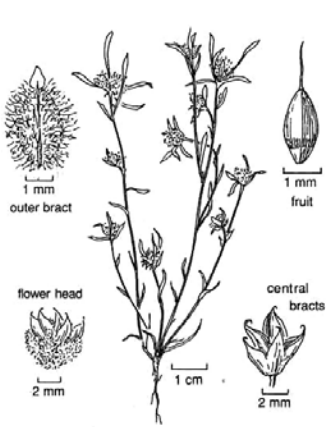


Amphipappus fremontii

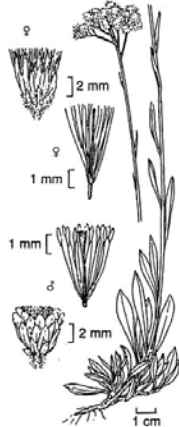


Anaphalis margaritacea

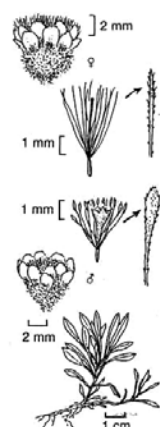
Anisocoma acaulis



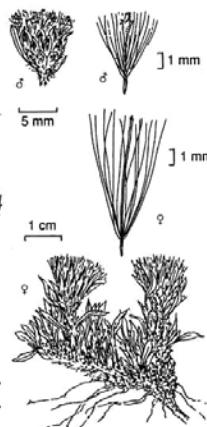
Ancistrocarphus filagineus



Antennaria argentea



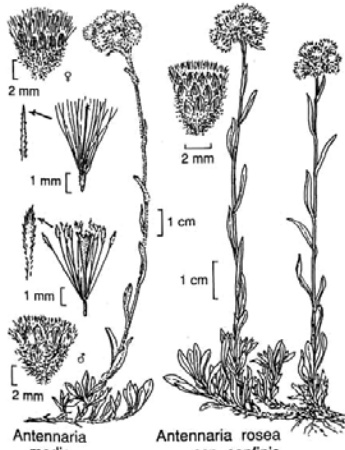
Antennaria corymbosa



Antennaria dimorpha

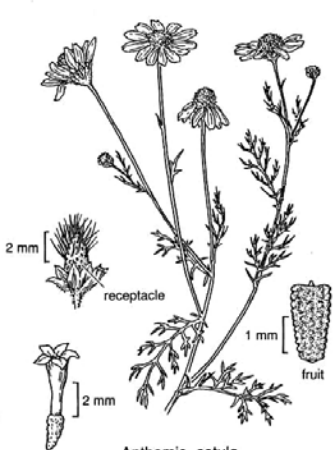


Antennaria geyeri

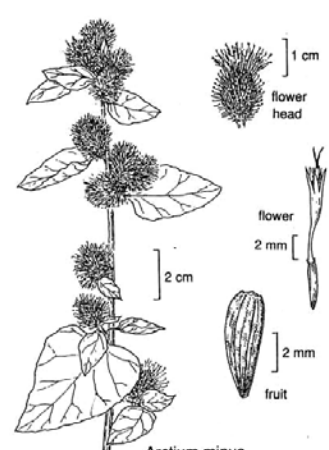


Antennaria media

Antennaria rosea ssp. confinis



Anthemis cotula



Arctium minus