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DEFINITION OF PYRROCOMA SUBVISCOSA (ASTERACEAE: ASTEREAE)

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ABSTRACT

Pyrrocoma subviscosa Greene is a species of northeastern Nevada and adjacent Utah and Idaho — the name has been misapplied to plants elsewhere. The stipitate-glandular vestiture is distinctive but probably does not indicate a close relationship to the *P. hirta* group, as has sometimes been supposed. In the interpretation here, plants of *P. subviscosa* vary in height from 12–55 cm and stems may be unbranched (with 1 head) to highly branched (with numerous heads). A lectotype is designated for the species.

The type of *Pyrrocoma subviscosa* Greene was collected in Elko Co., Nevada, and the name has subsequently been applied to plants from that region westward to Humboldt Co., Nevada, and into California. Hall (1928) treated it as a subspecies of *P. lanceolata* and cited one of his own collections (*Hall 12212*) from Lassen Co., California, along with others from Elko County. Mayes (1976) followed, identifying subsp. *subviscosa* in California, as have Bogler (2006) and Keil & Brown (2012, 2025). The species is regarded here to have a more restricted distribution — northeastern Nevada and adjacent Utah and Idaho. Evidence for a close relationship to *P. lanceolata* was not explicitly stated by Hall or elsewhere.

The stipitate-glandular vestiture of *Pyrrocoma subviscosa* is unusual in the genus — it also occurs in the *P. hirta* group (Nesom 2025a), and some collections of *P. subviscosa* from Idaho have been identified as such. Plants of the *P. hirta* group, however, diagnostically lack persistent fibrous remnants of petiole bases, which are present in *P. subviscosa*, and their degree of relationship to *P. subviscosa* is speculative. California plants identified as *P. subviscosa* are glandular but not stipitate-glandular and belong with a different species (*P. brachycephala* Greene; Nesom 2025b).

Pyrrocoma bitneri Nesom from northern Washoe Co., Nevada (Nesom 2025b), is the only other *Pyrrocoma* species with prominent stipitate-glandular vestiture and is more plausibly a close evolutionary relative of *P. subviscosa*. Basal leaves of *P. bitneri* are much broader and heads larger (involucres 15–20 mm wide) and in a distinct corymb.

PYRROCOMA SUBVISCOSA Greene, Proc. Acad. Nat. Sci. Philadelphia 1895: 549. 1896. Haplopappus subviscosus (Greene) Blake, Contr. U.S. Natl. Herb. 25: 543. 1925. Haplopappus lanceolatus subsp. subviscosus (Greene) Hall, Publ. Carnegie Inst. Wash. 389: 117. 1928. Pyrrocoma lanceolata var. subviscosa (Greene) Mayes ex Brown & Keil, Phytologia 73: 58. 1992.
LECTOTYPE (designated here): Nevada. Elko Co.: Near the Humboldt Wells, 25 Jul 1893, E.L. Greene s.n. (NDG-00569; isolectotypes: NDG-00568, NY, UC-fragment). Greene cited the collection, for which several duplicates exist.

Stems ascending-erect, 12–55 cm, minutely glandular with sessile or imbedded glands, sometimes the peduncles stipitate-glandular, sometimes also sparsely villous distally. **Leaves**: basal lanceolate to oblanceolate, 7–18 cm long, abruptly attenuate to a petiole 1–4 cm long, fibrous remnants of petiole bases persistent, blades 8–24 mm wide, glandular (lens) with imbedded or minute sessile glands, margins sharply serrate, cauline reduced in size, narrowly lanceolate to oblanceolate, clasping to subclasping. **Heads** 1 or 2–6(–10) in a loosely subracemoid to racemoid-corymboid inflorescence, on bracteate peduncles 5–12 cm long. **Involucres** 12–16 mm wide (pressed), without immediately subtending bracts; phyllaries narrowly oblong with a triangular-acuminate apex, in 3(–4) series of

subequal length, inner 8–11 mm long, margins of inner with a narrow, scarious rim, green in the distal 1/3-2/3, minutely sessile-glandular, without non-glandular hairs or the involucre sometimes villous at the very base. **Ray florets** 18–22(–32), fertile, corollas 8–9 mm long, 1.5–2 mm wide, coiling. **Disc corollas** 4.5–6 mm long. **Achenes** 3 mm long, sericeous-strigose. **Chromosome number**, tetraploid, 2n = 24 (Anderson et al. 1974).

Flowering June-August. Wet and often saline meadows, meadow edges, and flats, sometimes with sagebrush, creek edges and bottoms, ditches; (4300–)4950–6500 feet.

Most of the Nevada plants have a inflorescence of multiple heads (e.g., Figs. 1-2, 7-10) on tall stems with ample cauline leaves. Collections from Wells in Elko County are like this (e.g., the type–Figs. 1-2, and Figs. 7-8), except for *Anderson 2962* (Fig. 5). *Lot 241* from Lander County also has a reduced inflorescence. From north of Wells, including those from Elko County (*Rink 18155*-Fig. 6, *Wellard 674*), from the east side of Pilot Mountain in Box Elder Co. (*Cottam s.n.*, Figs. 11-12), and from the Utah/Idaho border (Figs. 13-19), plants have 1–3 heads on stems with reduced cauline leaves. This is at least suggestive of geographic differentiation, but the distinctive vestiture, intermediacy, and coherent overall geography is taken here as evidence of a single species.



Map 0. Distribution of *Pyrrocoma subviscosa*. Nevada, Utah, Idaho. The Elko County boundary is outlined in red.

Additional collections. Idaho. Cassia Co.: Beaverdam Creek/Goose Creek area, just N of Utah/Idaho line, T16S, R21E, S34, meadow area, grass/forb community, 4950 ft, 16 Jun 1989, Atwood 13635 (BRY, NY, OSC, SJNM); 1 mi N of Moulton, T16S, R23E, S15, moist meadow, sagebrush-grass, 8 Jul 1952, Baker 9166 (NY); 20 mi S of Oakley, along Goose Creek, meadows, 2 Jul 1950, Christ 19579 (ID-3 sheets); 13 mi SW of Oakley, small sedge meadow surrounded by sagebrush, 3 Jul 1950, Christ 19614 (ID, WS); Albion Mountains, along Circle Creek, T15S R24E S32, grass-sedge meadow along the creek, 10 Jul 1993, John 1118 (IDS, USU) and 12 Jun 1992, John 757 (IDS, USU); Lower Beaverdam Creek, ca. 1 mi from its confluence with Goose Creek, ca. 20 mi SSW of Oakley, T16S, R21E, Sec 33, saturated to moist creek bottom dominated by graminoids, 4950 ft, 20 Jun 2001, Mancuso 2181 (CIC, ID); Goose Creek above the mouth of Emery Creek, wet meadow with Poa pratensis and Carex sp., 5000 ft, 22 Jun 1974, Riggs 82J (CIC). Nevada. Elko Co.: 1 mi NW of Wells, T38N, R26E, Sect 32, SE 1/4, frequent in dry soil at edge of alkaline, grassy meadow with [Pyrrocoma tenuicaulis] in more moist areas, 5600 ft, 18 Aug 1965, Anderson 2962, voucher for chromosome count, 2n=24, (NY); Ruby Valley, open meadows, 31 Aug 1940, Dick s.n. (LL); Ruby Valley, Ruby Lake Refuge, along stream, 7 Aug 1949, Dick 24 (US), 41 (US), 42 (US); Cave Creek [Ruby Lake area], 6500 ft, 19 Aug 1925, Hall 12165 (RSA, UC); Humboldt Wells, meadows, 5630 ft, 27 Jul 1908, Heller 9187 (NY, PH, RENO, US); Ruby Valley near Cave Creek Post Office, 6000 ft, 19 Aug 1908, Heller 9486 (MO, NY, PH, RENO, US); Wells, 5700 ft, 9 Aug 1881, Jones 13434 (MO, PH); Wells, N side of town on Old Metropolis Road at crossing of Town Creek (dry), small colony in ditch on N side of the road, N side of the creek, 5615 ft, mostly past flower, stems damaged, 26 Aug 2024, Nesom Pyr-1 (BRY); Winecup Ranch, 41.406505 N, 114.69209 [ca. 2 mi E of Hwy 93 at Wilkins/Grays Landing], riparian, 5550 ft, 29 Jun 2006, Rink 18155 (ASC, RENO); Ruby Valley, Ruby Lake Natl Wildlife Refuge, Spring #129, T27N R58E Sec 18, riparian habitat, 5975 ft, 22 Jul 1997, Smith 4168 (RENO); Wilkins-Montello Road [Rte 765, ca. 10 road mi NE of Wilkins], 41.46882 N, 114.58296 W, saline meadows, clay, 5500 ft, with Ivesia kingii, Nitrophila occidentalis, Plantago eriopoda, Sisyrinchium demissum, 24 Jun 2017, Wellard 674 (BRY). Lander Co.: UNR Gund Ranch Experiment Station, T23N, R48E, Sec 8, 5500 ft, 24 Jul 1978, Lott 241 (NY). Utah. Box Elder Co.: E slope of Pilot Mtn, wet meadow, 4300 ft, 6 Jun 1953, Cottam s.n. (NY-2 sheets); 15 air mi NW of Lynn, along Goose Creek, T14N, R19W, Sec 3, NW 1/4, wet meadow, bottom with sedges, grasses, and rushes, 23 Jun 1982, Atwood & Goodrich 8995 (NY); 9.5 air mi SW of Lynn, Grouse Creek, T21N, R18W, Sec 13, NE 1/4, wet meadow, bottoms with sedges, grasses, and rushes, 23 Jun 1982, Atwood & Goodrich 9023 (NY).

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Figure 1. Pyrrocoma subviscosa. Elko Co., Wells, Greene s.n. (NDG 00569, lectotype).



Figure 2. Pyrrocoma subviscosa. Elko Co., Wells, Greene s.n. (NDG 00568, isolectotype).





Figure 3. *Pyrrocoma subviscosa*. Head from the lectotype.



Figure 4. Pyrrocoma subviscosa. Heads from Heller 9486 (RENO, Fig. 10).



Figure 5. Pyrrocoma subviscosa. Elko Co., Wells, Anderson 2962 (NY).



Figure 6. Pyrrocoma subviscosa. Elko Co., northeast of Wells, Rink 18155 (RENO).



Figure 7. Pyrrocoma subviscosa. Elko Co., Wells, Heller 9187 (RENO).



Figure 8. Pyrrocoma subviscosa. Elko Co., Wells, Heller 9187 (NY).



Figure 9. Pyrrocoma subviscosa. Elko Co., Ruby Valley, Heller 9486 (NY).



Figure 10. Pyrrocoma subviscosa. Elko Co., Ruby Valley, Heller 9486 (RENO).



Figure 11. Pyrrocoma subviscosa. Box Elder Co., E slope of Pilot Mountain, Cottam s.n. (NY).



Figure 12. Pyrrocoma subviscosa. Box Elder Co., E slope of Pilot Mountain, Cottam s.n. (NY).



Figure 13. Pyrrocoma subviscosa. Box Elder Co., Goose Creek, Heller 9486 (NY).





Figure 14. Pyrrocoma subviscosa. Cassia Co., Atwood 13635 (BRY).



Figure 15. Pyrrocoma subviscosa. Cassia Co., Atwood 13635 (SJNM).



Figure 16. Pyrrocoma subviscosa. Cassia Co., Riggs 82 (CIC).



Figure 17. Pyrrocoma subviscosa. Cassia Co., Mancuso 2181 (CIC).



Figure 18. Pyrrocoma subviscosa. Cassia Co., Baker 9166 (NY).



Figure 19. Pyrrocoma subviscosa. Cassia Co., John 56 (IDS).