

PYRROCOMA CLEMENTIS VAR. *VILLOSA*
HAIRY TRANQUIL GOLDENWEED
Family: Asteraceae

Agency Status:

US Fish & Wildlife Service: None.

US Forest Service: S-USFS R2

Heritage Rank:

Global: G3G4T2

State: S2

Range Context: Regional Endemic/Core

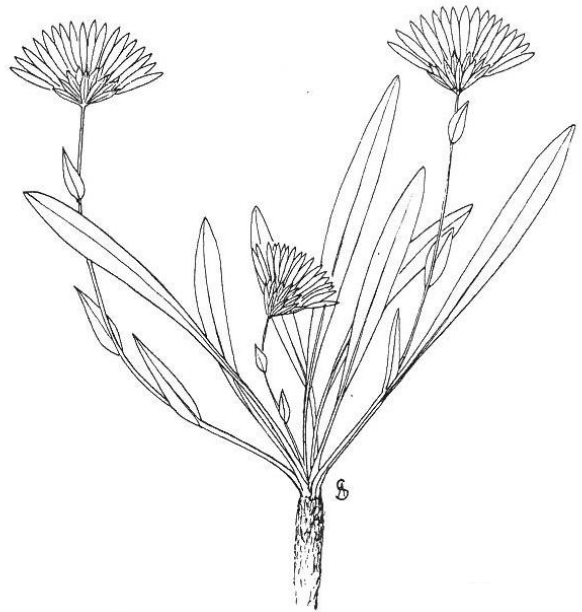
Wyoming Contribution Rank: Very High

Description: Hairy tranquil goldenweed is a perennial forb with 1 to many stems from a branched rootstock. Stems are 3-15 (30) cm tall and loosely white-hairy to glabrous. Basal leaves are oblanceolate to narrowly elliptic, 2-12 cm long, and sparsely pubescent to glabrate on the surface. Stem leaves are progressively smaller and sessile to clasping. Flower heads are solitary or number 2-4 with involucre 9-15 mm high and woolly to glabrous lanceolate to oblanceolate, attenuate bracts that are green throughout. Ray flowers are yellow and 10-15 mm long while disk flowers are 6-8.5 mm long. Fruits are 4-sided glabrous achenes with tawny to brown bristles (Cronquist 1994; Dorn 2001, Bogler 2006).

Synonym: *Pyrrocoma villosa*, *Haplopappus villosa*

Similar Species: *Pyrrocoma clementis* var. *clementis* is similar except for acute tipped involucre bracts and hairy achenes. *Pyrrocoma integrifolia* has green-tipped involucre bracts or green just on upper end. *Pyrrocoma uniflora* has 1-4 flowering heads with involucre 5-10 mm long. *Pyrrocoma lanceolata* has 4 or more flower heads per stem with involucre 5-10 mm long of green-tipped bracts (Dorn 2001; Cronquist 1994, Bogler 2006).

Phenology: Flowers from July-mid August, fruits from late July-September.



Above: *Pyrrocoma clementis*, from Hall 1928.



Above: *Pyrrocoma clementis* var. *villosa* by Earl Jensen

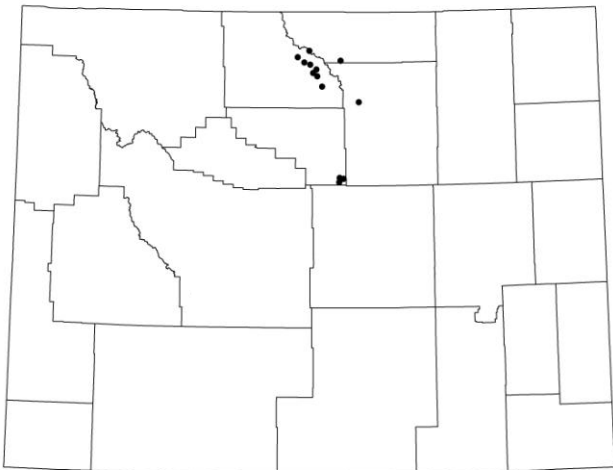
Distribution: Occurs in the Bighorn Mountains where it is extant in Big Horn and Washakie counties, and known historically from Johnson and Sheridan counties. Reports from Fremont and Carbon counties by Mayes (1976) appear to be based on the type variety.

Habitat: Montane meadows, often on limestone substrates, and in the vicinity but generally not associated with sagebrush stands. Elev. 7300-9700 ft.

Occurrences in Wyoming: Known from 10 extant records in Wyoming (most recently observed in 2010), and 3 vague, historical reports.

Abundance: Total numbers are at least in the 10,000's.

Trends: Not known.



Above: Wyoming distribution of *Pyrocoma clementis* var. *villosa*

Protection Status: One somewhat vague, old record may occur in the Spanish Karst ACEC and Trapper Canyon Wilderness Study Area. All other known populations are from public lands managed for multiple use.

Threats: Not known.

Managed Areas: Occurs on lands managed by the BLM Worland Field Office and Bighorn National Forest.

References:

Bogler, D.J. 2006. *Pyrocoma*. In: Flora of North America Editorial Committee, eds. 1993+. *Flora of North America North of Mexico*. Vol. 20. Magnoliophyta: Asteridae (in part): Asteraceae part 2. Oxford University Press, New York and Oxford. pp. 413-424.



Above: *Pyrocoma clementis* var. *villosa* habitat by Earl Jensen

Cronquist, A. 1994. *Intermountain Flora*, Volume 5: Asterales. New York Botanical Garden, Bronx, New York.

Dorn, R.D. 2001. *Vascular Plants of Wyoming*, 3rd ed. Mountain West Publishing, Cheyenne, WY. 412 pp.

Hall, H.M. 1928. The Genus *Haplopappus*, a phylogenetic study in the Compositae. Carnegie Institute of Washington. 391 pp.

Heidel, B. 2011. Status of *Pyrocoma clementis* var. *villosa* (hairy tranquil goldenweed), Bighorn Mountains, north-central Wyoming. Unpublished report prepared for Bighorn National Forest, USDA Forest Service. Wyoming Natural Diversity Database, Laramie, WY.

Mayes, R.A. 1976. A cytotaxonomic and chemosystematic study of the genus *Pyrocoma* (Asteraceae: Astereae). Unpublished PhD dissertation, University of Texas, Austin, TX.

Rydberg, P.A. 1900. Studies on the Rocky Mountain Flora III. Bulletin Torrey Botanical Club 27:614-636.

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