

PHYSARIA DIDYMOCARPA SSP. *LANATA*
WOOLLY TWINPOD
Family: Brassicaceae

Agency Status:

US Fish & Wildlife Service: None.
Agency Status: USFS Region-2 Sensitive.

Heritage Rank:

Global: G5T2 State: S2
Range Context: Regional Endemic/Core
Wyoming Contribution Rank: Very High

Description: Woolly twinpod is a tufted, multi-stemmed perennial herb covered with long-stalked, tangled, multi-branched woolly hairs (giving the entire plant a gray appearance). Basal leaves are entire to coarsely dentate and shaggy-margined due to the long-stalked pubescence. Stem leaves are shorter, oblanceolate, and 1-2 cm long. The inflorescence consists of a congested cluster of yellow, 4-petaled flowers 8-12 mm long. Mature fruits consist of 2 inflated, balloon-like pods with shaggy pubescence. The replum of the mature fruit is narrowly lance-shaped to oblanceolate with 2 stubby funiculi per face (Dorn 2001; Rollins 1993).



Above: *Physaria didymocarpa* ssp. *lanata* by Greg Karow

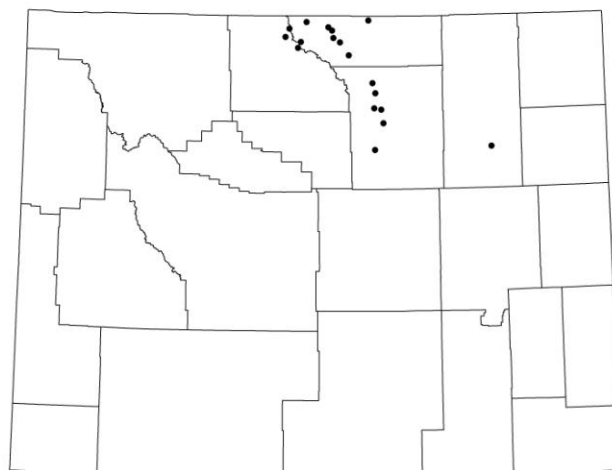
Synonyms: *Physaria lanata*, *Physaria didymocarpa* var. *lanata*

Similar Species: *Physaria didymocarpa* ssp. *didymocarpa* has appressed hairs on the leaves (giving them a smooth look) and mostly 3-6 ovules/funiculi per

locule. *P. acutifolia* and *P. brassicoides* have smooth leaf blades.

Phenology: Flowers from May-June, fruits produced as late as September.

Distribution: A regional endemic of north-central Wyoming and adjacent Montana. In Wyoming, it is known from the Bighorn Range and adjacent northern Powder River Basin in northeastern Big Horn, south-central Campbell, western Johnson, and western Sheridan counties.



Above: Wyoming distribution of *Physaria didymocarpa* ssp. *lanata*

Habitat: Occurs on shallow, stony soils of exposed limestone, sandstone or shale outcrops; and is typically found on ridges, rims, buttes, and knolls. Occupies sparsely-vegetated slopes within grasslands, shrublands, and open woodlands at 3,540-10,160 ft. The closely associated vegetation often has less than 10% cover, typically dominated by bunchgrasses, sometimes with a major cushion plant component. The surrounding vegetation includes usually open stands of ponderosa pine, limber pine, Engelmann spruce, Rocky Mountain juniper, curl-leaf mountain mahogany, bunchgrass slopes of bluebunch wheatgrass, or prairie grassland associations.



Above: *Physaria didymocarpa* ssp. *lanata* habitat by Bonnie Heidel

Occurrences in Wyoming: Known from 18 occurrences in Wyoming, all of which have been observed or discovered since 1977 (4 new sites were discovered in 2010).

Abundance: The rangewide population is estimated at 19,900-30,000+ individuals (with the vast majority of these occurring in Wyoming). Only five occurrences in Wyoming are estimated to have more than 1,000 individuals.

Trends: Not known. Most populations are in stable habitat conditions.

Protection Status: Two populations are located within TNC Conservation Easements on the east slope of the Bighorn Range. Two additional occurrences are found in the Amsden Creek and Bud Love Wildlife Habitat Management Areas. One population is found in the vicinity of the Tongue River potential RNA on Bighorn National Forest. All other populations are on public, state, or private lands managed for multiple use.

Threats: May be impacted by road modifications, recreational use of habitat, and mining or quarrying.

Managed Areas: Occurs on lands managed by Bighorn National Forest, the BLM Buffalo Field Office, and Wyoming Game and Fish.

References:

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Handley, J. and B. Heidel. 2011. Status of *Physaria didymocarpa* var. *lanata* (woolly twinpod), Big Horn Mountains, north-central Wyoming. Report prepared for the Bighorn National Forest by the Wyoming Natural Diversity Database - University of Wyoming Laramie, WY.

Heidel, B. 1996. Noteworthy Collections - Montana. Madrono 43: 436-440.

Heidel, B. and J. Handley. 2004. *Physaria didymocarpa* (Hook.) Gray var. *lanata* A. Nels. (common twinpod): A Technical Conservation Assessment. Prepared for the USDA Forest Service, Rocky Mountain Region. Wyoming Natural Diversity Database, Laramie, WY.

Nelson, A. 1904. New plants from Wyoming, XV. Bulletin of Torrey Botanical Club 31: 239-247.

Rollins, R.C. 1939. The Cruciferous Genus *Physaria*. Rhodora 41:391-414.

Taylor, A. and R. Caners. 2002. Baseline survey for *Astragalus barrii* Barney (Barr's milkvetch) and *Physaria didymocarpa* var. *lanata* A. Nels. (Woolly Twinpod) in eastern Big Horn and southwestern Rosebud counties, Montana. Unpublished report to the Bureau of Land Management. Montana Natural Heritage Program, Helena.

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