

-State Species Abstract-
-Wyoming Natural Diversity Database-

PHLOX PUNGENS
BEAVER RIM PHLOX
Family: Polemoniaceae

Status:

US Fish & Wildlife Service: None (Former C2 candidate for listing under the Endangered Species Act.)

Agency Status: WY BLM: Sensitive.

Heritage Rank:

Global: G2 State: S2

Range Context: Local endemic/ Core

Wyoming Contribution Rank: Very High

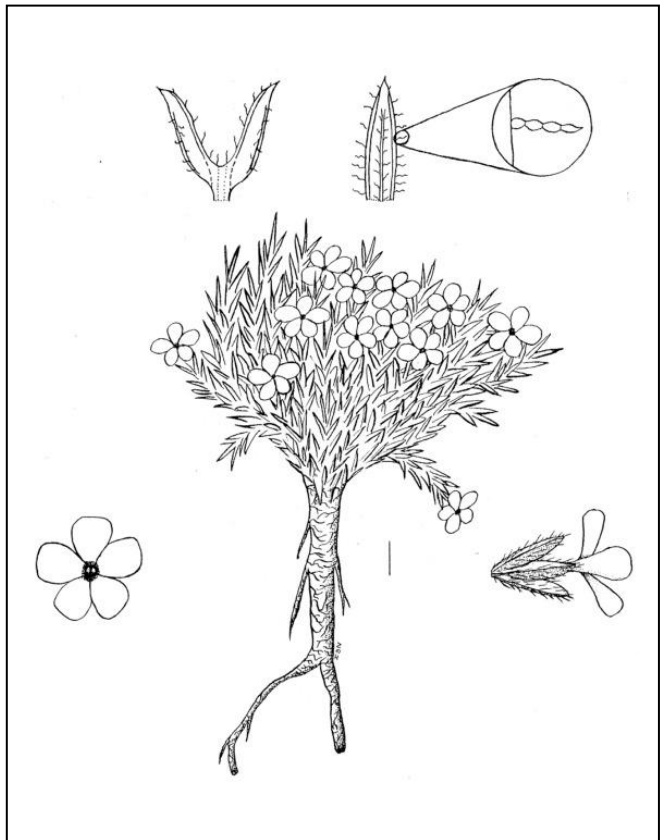
Description: Beaver Rim phlox is a leafy perennial forb that forms loose mats of prostrate or short, erect stems less than 5 cm high. The stiff, prickly leaves are lance-shaped, 1-1.5 mm wide, and have glandular or ciliate margins. The margins and midribs of the leaves are prominently thickened and gradually taper to a sharp tip. The white-petaled flowers are usually over 15 mm in diameter and have a glandular-hairy calyx tube (Dorn 1990, 1992; Fertig et al. 1994). Populations from the Green River Basin differ from "typical" populations of the southeast Wind River Range and Beaver Rim in having short-stalked glandular hairs on the leaves and narrower leaf blades (under 1 mm wide) that lack thick midribs and margins. These populations have been referred to as the "Ross Butte morph" and may represent an undescribed variety (Dorn 1988, Fertig 1998).

Similar Species: *Phlox kelseyi* has soft leaves without thickened midribs or margins. *P. multiflora* has glabrous leaves and calyces. *P. hoodii* and *P. muscoides* have flowers less than 12 mm wide and are more densely matted. *P. opalensis* has non-glandular leaves (Dorn 1990, 2001).

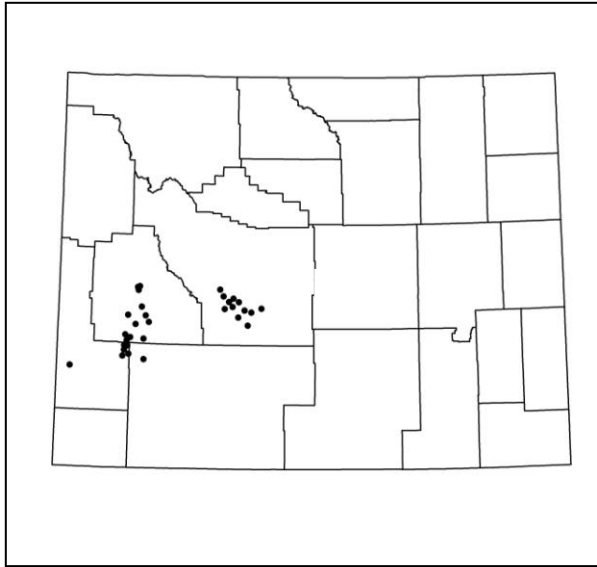


Above: Ross Butte morph of *Phlox pungens* by B. Heidel.

Below: *Phlox pungens* by Isobel Nichols (from Fertig et al. 1994).



Flowering/Fruiting Period: May-June.



Wyoming distribution of *Phlox pungens*. Populations in Fremont County represent the “typical” form while those in the Green River Basin represent the “Ross Butte” morph.

Distribution: Endemic to the Wind River and Green River basins extending to the Beaver Rim and southeastern foothills of the Wind River Range in Fremont, Lincoln, Rock Springs and Sublette counties, Wyoming. The “typical” form is restricted to Fremont County, and the “Ross Butte morph” is restricted mainly to the Green River Basin.

Habitat: *Phlox pungens* is typically found in sparsely vegetated cushion plant communities on slopes of limestone, volcanic-rich sandstone, siltstone, or red-bed clays at 6000-7400 feet (Fertig et al. 1994). Populations of the “Ross Butte” form in the Green River Basin often occur in concave washes along summit rims, midslopes, and ridgetops of gray to reddish-brown clay-shale soils with a surface layer of white limey-sandstone in cushion plant/bunchgrass vegetation or openings in *Artemisia nova*/*A. tridentata* grasslands. Less frequently, this species may be associated with *Atriplex gardneri*, *Cercocarpus montanus*, or *Chrysothamnus nauseosus* communities (Fertig 1998, Heidel 2009).

Occurrences in Wyoming: Known from 31 occurrences in the state, all of which have been discovered or relocated since 1990.

Abundance: Dorn (1990) estimated the population to be 200,000 plants at two known sites in the Beaver Rim area in 1990. Since 1990, additional sizeable populations have been discovered, especially in the Green River Basin. Tens to hundreds of thousands of plants have been discovered in the Ross Butte, Little Colorado Desert, and Red Canyon areas by Fertig from 1993-1998 where numbers are conservatively estimated at over 300,000 (Heidel 2009).

Trends: Dorn (1990) believed the known populations were stable. Follow-up observations of known sites suggests that populations are not in decline.

Protection status: Several populations of the “typical” form of this species are protected on Nature Conservancy easements and the Red Canyon Ranch preserve. An additional population is found in the Beaver Rim ACEC. All other occurrences of the typical form and all known occurrences of the glandular “Ross



Above: *Phlox pungens* habitat along the rim and upper slopes of white ashy-limey sandstone along Beaver Rim. Photo by George Jones.



Above: *Phlox pungens* habitat on redbed slopes of the Chugwater Formation in Red Canyon, Fremont Co., Wyoming. Photo by Walter Fertig.

Butte morph" are found on public lands managed for multiple use. *Phlox pungens* was formerly a C2 candidate for listing under the Endangered Species Act.

Threats: Surface disturbance associated with oil and gas development, pipeline and highway construction, off-road vehicle use and exotic species encroachment are potential threats (Dorn 1990, Heidel 2009).

Managed Areas: Occurs on lands managed by the BLM Lander, Pinedale, Rock Springs and Kemmerer Field Offices.

Comments: Additional taxonomic study is needed to determine if the "Ross Butte" form deserves varietal or specific rank.

References:

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