

-State Species Abstract-
-Wyoming Natural Diversity Database-

PENSTEMON ACAULIS VAR. *ACAULIS*
STEMLESS BEARDTONGUE
Family: Scrophulariaceae

Status:

US Fish & Wildlife Service: None; formerly a C2 candidate for listing under the Endangered Species Act.

Agency Status: USFS Region 4: Sensitive;
WY BLM: Sensitive

Heritage Rank:

Global: G2 State: S1

WYNDD Plant List: Regional endemic
(High conservation priority)

Description: Stemless beardtongue is a mat-forming perennial forb less than 4 cm tall. The leaves are all basal, densely clustered, and have linear blades less than 1.6 mm wide and 20 mm long with minutely roughened margins. The bluish-purple, 5-lobed glandular flowers are 12-16 mm long, sessile, occur singly or in pairs, and barely exceed the basal leaves. The sterile filament is yellow and bearded about 2/3 of its length. Anther sacs are glabrous, blue-black, and 0.7-0.9 mm long (Dorn and Dorn 1980; Welsh et al. 1993; Fertig et al. 1994).

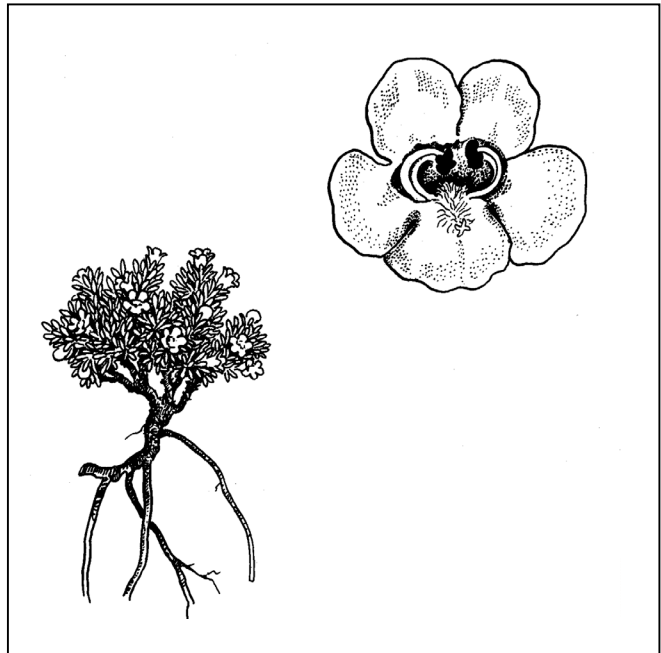
Similar Species: *Penstemon acaulis* var. *yampaensis* has broader, linear to narrowly oblanceolate leaves over 2 mm wide and typically has 4 flowers per shoot. *P. caespitosus* has short, erect, leafy stems and short-stalked flowers.

Flowering/Fruiting Period: Flowers from mid May to late June, probably depending on levels of spring precipitation. Fruits are produced from mid-June to mid-July.



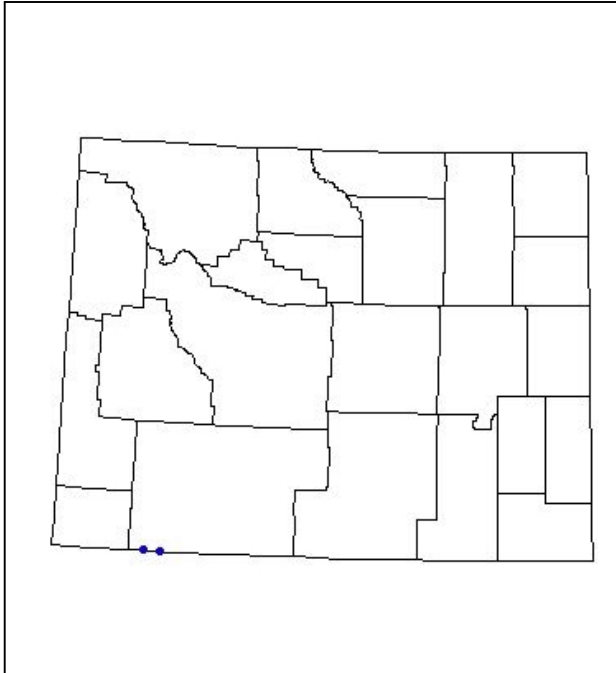
Above: Photo of *Penstemon acaulis* var. *acaulis* by Mike Evans.

Below: *P. acaulis* var. *acaulis* by Kaye Thorne.



Distribution: Narrow endemic of southwestern Wyoming (Sweetwater County) and northeastern Utah (Daggett County) in the vicinity of Mckinnon and Manila.

Habitat: In Wyoming, Stemless beardtongue is found primarily in sparsely vegetated cushion plant/bunchgrass communities in openings within *Artemisia nova* grasslands on low slopes, outwash fans, ridgetops, and flats.



Wyoming distribution of *Penstemon acaulis* var. *acaulis*.

These sites are often dominated by *Hymenoxys torreyana*, *Astragalus spatulatus*, *Phlox hoodii*, *Poa secunda*, *Stipa comata*, and *Elymus spicatus*. Less frequently, *Penstemon acaulis* is found within similar openings in *Artemisia tridentata* var. *wyomingensis* or *Chrysothamnus nauseosus* grasslands or on sparsely vegetated roadcuts or roadside ditches within a dense matrix of shrubs. At all sites, the species occurs on shallow, rocky soils derived from the Bridger Formation. It is usually absent or sparse in areas with deeper soils and dense sagebrush or juniper cover. Elevations range from 6080-8020 feet (Fertig and Welp 2001).

Occurrences in Wyoming: Known from 3 main occurrences in Wyoming, consisting of 21 subpopulations and small colonies (most recently surveyed in 2000).

Abundance: The current state population is estimated at ca 10,000 plants in 100 acres of occupied habitat (Fertig and Welp 2001).

Individual colonies may be very small, with 30-50 plants in areas of 0.1-20 acres.

Trends: Long-term trends are probably down due to the loss of some subpopulations to gravel quarries and road construction.

Protection status: All known populations occur on public or private lands managed for multiple use (one site is in a former quarry).

Threats: Threatened by loss of habitat in rock quarry, other surface disturbances, and potentially by over-collection for horticulture.

Managed Areas: Occurs on lands managed by the BLM Rock Springs District and Ashley National Forest (Flaming Gorge National Recreation Area).

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