

**ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM**

**Plant Abstract**

**Element Code:** PDSCR1L0V0

**Data Sensitivity:** No

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Penstemon breviculus*  
**COMMON NAME:** Shortstem Beardtongue  
**SYNONYMS:** *Penstemon jamesii* subsp. *breviculus*  
**FAMILY:** Scrophulariaceae

**AUTHOR, PLACE OF PUBLICATION:** Nisbet, Gladys T. and Raymond Carl Jackson. Univ. of Kansas Sci. Bul. 41(5): 734. 1960.

**TYPE LOCALITY:** New Mexico: Aztec

**TYPE SPECIMEN:** Univ. Notre Dame Herbarium: NDG45652 (paratype). C.F. Baker #601. May 5, 1899.

**TAXONOMIC UNIQUENESS:** With over 250 recognized species, *Penstemon* is the third largest genus of flowering plants found in the interior west, following *Astragalus* and *Eriogonum*. Except for one minor species, the genus *Penstemon* does not occur naturally outside of North America. There are at least 47 species found in Arizona, with additional varieties and subspecies, and two hybrids.

**DESCRIPTION:** Flowering stems 10 to 25 cm. tall, puberulous, solitary, few, or many on old woody rootstocks; leaves puberulous to glabrate, basal leaves elliptic, spatulate, or lanceolate, petiolate, usually acute, stem leaves lanceolate, mostly entire but occasionally with a few pointed teeth; inflorescence narrow, secund, glandular-pubescent, each peduncle bearing few to as many as 10 flowers, bracts leaflike, upper ones becoming very small; calyx 5 to 8 mm. long, lobes lanceolate, acuminate, with narrow scarious margins on the lowest one-third portions; corolla 13 to 18 mm. long, 5 to 6 mm. wide when pressed, glandular-pubescent externally, dark blue, dark violet, or blue-purple, with deep reddish purple guide lines on upper and lower throat, throat slightly to moderately inflated, the vertical diameter of the orifice as much or more than the horizontal diameter, lower lobes often overlapping and shorter than upper, the outside edges of upper and lower lobes in parallel lines, thus the face of the corolla rectangular in outline and very narrow, lower lip not glandular, bearded with long yellowish-white hairs; anther sacs small, explanate; staminode narrow, included or barely exerted, bearded with yellow almost threadlike hairs for most of the length, those at the tip long, loose, and spreading, those behind the tip much shorter, straight, and pointing backward (Nisbet and Jackson, 1960).

**AIDS TO IDENTIFICATION:** The most recent taxonomic key to the *Penstemon* genus is by Holmgren, and is found in Cronquist et al 1984.

**ILLUSTRATIONS:**

Photos: <http://swbiodiversity.org/seinet/taxa/index.php?taxon=Penstemon%20breviculus>.

Herbarium Mounts: <http://eol.org/pages/578250/media>.

Photo and Habitat:

<http://www.cnhp.colostate.edu/download/projects/rareplants/pdfs/23967.pdf>.

**TOTAL RANGE:** The Four Corners area: SW Colorado, SE Utah, NW New Mexico and NE Arizona

**RANGE WITHIN ARIZONA:** NE Arizona, Apache County, from the SE edge of Black Mesa to the New Mexico border and Four Corners.

**SPECIES BIOLOGY AND POPULATION TRENDS**

**GROWTH FORM:** Perennial herb.

**PHENOLOGY:** Flowers: May and June.

**BIOLOGY:**

**HABITAT:** In Colorado this species is found on sandstone and shale, in clayey loam soils, in sagebrush, pinyon-juniper and desert grassland communities at elevations of 4890 – 6690 feet (1490-2040 m), and in Utah in shadscale, rabbitbrush, blackbrush, sagebrush and pinyon-juniper communities at 5200 – 7610 feet (1585 to 2320 m), EOL 2015. Arizona collections noted gravel hillsides and highly overgrazed shrub-grassland with scattered junipers.

**ELEVATION:** Range-wide: 4890 – 7610 feet (1490-2320m). Arizona collections range from 6000 – 7260 feet (1830-2210m).

**EXPOSURE:** Not specified.

**SUBSTRATE:** Not specified in Arizona, but sandstone and shale, with clayey loam soils, noted from Colorado.

**PLANT COMMUNITY:** Shrub-grassland with scattered junipers. Noted associated species include pigmy sage, *Chrysothamnus*, *Oryzopsis*, *Eriogonum* and *Hilaria jamesii*.

**POPULATION HISTORY AND TRENDS:** Unknown for Arizona. There are only five collections (four mappable) known from NE Arizona. These were collected between 1990 and 2003. With no repeat collections from the same locality, or abundance dated provided, no

evaluation of population history or trends can be made. Due to the restricted distribution, NatureServe (2015) considers the plant to be critically imperiled in Arizona.

## **SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** None.  
**STATE STATUS:** None.  
**OTHER STATUS:** None.

**MANAGEMENT FACTORS:** According to the New Mexico Rare Plant Technical Council in 1999, this species may be threatened in New Mexico at least by habitat modification due to construction activities including pipelines, well pad installation and road building. *P. breviculus* was listed as rare in New Mexico until 2005 when it was de-listed because there were 52 documented occurrences over a range of about 195 miles.

**PROTECTIVE MEASURES TAKEN:** None specified.

**SUGGESTED PROJECTS:** Given the rather wide and spotty distribution in NE Arizona and the general habitat preference, it is likely that additional collections will be made if more surveys are conducted.

**LAND MANAGEMENT/OWNERSHIP:** USDI Bureau of Indian Affairs, Navajo Nation.

## **SOURCES OF FURTHER INFORMATION**

### **REFERENCES:**

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**ADDITIONAL INFORMATION:**

**Revised:** 2015-08-06 (BDT)

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