

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

Plant Abstract

Element Code: PDSCR1L070

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Penstemon albomarginatus*

COMMON NAME: White-margined penstemon

SYNONYMS:

FAMILY: Scrophulariaceae

AUTHOR, PLACE OF PUBLICATION: M.E. Jones, Contributions to Western Botany. 12: 61. 1908.

TYPE LOCALITY: Near Yucca, Mohave Co., Arizona.

TYPE SPECIMEN: HT: POM. M.E. Jones, 29 April 1905.

TAXONOMIC UNIQUENESS: Thirty-eight species of *Penstemon* found in Arizona (Kearney and Peebles, 1951).

DESCRIPTION: Low growing herbaceous perennial between 6-12 in (15.0–30.5 cm). Entire plant pallid, glaucescent and glabrous. Many stems arise from a 12-48 in (30.5-122.0 cm) long taproot that is sunk deep into the soil with the crown just above soil level. Leaves green with very thin line of white around margin, 1.0-3.0 cm (0.4-1.2 in.) wide; leaves of rosettes entire, leaves of inflorescence slightly serrate giving wavy appearance. Petioles 6.4 mm long, 3.2 mm wide. Bracts similar in shape to leaf, becoming smaller near top. Sepals 6.4 mm long and 1.6 mm wide with acuminate tips. Corolla pink-lavender, ventrally white, with purple guidelines, 1.27 cm (0.5 in.) long, 6.4 mm wide; light golden hairs on lower lip. Capsule about 7.0 mm long (McDougall 1973).

AIDS TO IDENTIFICATION: Only *Penstemon* with white lines on leaf. Purple anthers and small size when blooming, 6 inches, are distinguishing characters (MacDougall 1973).

ILLUSTRATIONS: Color photo (Hesselberg, Date unknown)
Line drawing (Falk et al. 2001)
Color photo (Anderson *In* Falk et al. 2001)

TOTAL RANGE: Southeastern California, southern Nevada, and northwestern Arizona.

RANGE WITHIN ARIZONA: Dutch Flat and Sacramento Valley areas, southeast of Yucca, Mohave County.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Herbaceous perennial.

PHENOLOGY: Late March-early April. It is believed that flowering does not always appear to be dependent on the amount of rainfall. Established plants may bloom even in dry years by utilizing food and water resources in the large taproot. However, rainfall probably affects seedling germination and survival. This species dies back to the ground after spring and positive identification of occupied habitat is no longer possible for much of the year.

BIOLOGY: Several insects, including small carabid beetles, large flies, and vespid wasps, visit the showy flowers.

HABITAT: Coarse sandy and silty soil in Mohave Desertscrub communities. Sometimes found in the open, but often near creosote bushes, Joshua trees, or other large shrubs (AGFD/HDMS).

ELEVATION: Approximately 1,500 - 3,000 ft. (457-914 m).

EXPOSURE:

SUBSTRATE: Volcanic derived soils and coarse sand with high amounts of silt. In Arizona, it occurs in sandy loam uplands and sandy washes in a broad alluvial plain, but gravelly areas alternating with and interspersed with the sandy places do not support this species.

PLANT COMMUNITY: Mohave Desertscrub communities; often with *Larrea tridentata* and *Ambrosia* sp.; sometimes with *Yucca brevifolia* (Beatley 1976).

POPULATION TRENDS: Arizona's population is the largest known, but no total population estimate is available. This population lies within 100 square miles of an alluvial valley, west of the Hualapai Mountains. The upper reaches of this valley, with the highest white-margined beardtongue densities, are being purchased by the BLM. Nevada has twelve recently discovered populations in addition to the three that were previously known. Many of these populations have thousands of plants.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None (USDI, FWS 1996)

STATE STATUS: [Category 2, USDI, FWS 1990]
Salvage Restricted (ARS, ANPL 1999)

OTHER STATUS: [Salvage Restricted (ARS ANPL 1993)]
None (USDA, FS Region 3, 1999)
[Forest Service Sensitive, USDA FS Region
3, 1990]
Bureau of Land Management Sensitive
(USDI, BLM AZ 2000, 2005)

MANAGEMENT FACTORS: Recreational activities such as OHV's can have an affect on this species. Also for some populations, future mining activities may have an affect. If the land in Arizona that contains the largest population is purchased by the BLM then some lower density habitat will be privately owned, but even though the BLM will have fewer acres containing the plant they will control the higher density populations.

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS: Status and distribution surveys every year or two will help to indicate population health and fluctuation, establish the importance of effects of weather conditions on population size, and may help indicate if management strategies are successful. More propagation studies should be carried out to determine if seedlings, cuttings or transplanted plants could be used for mitigation efforts.

LAND MANAGEMENT/OWNERSHIP: BLM - Kingman Field Office; State Land Department; Private. Department of Defense (?).

SOURCES OF FURTHER INFORMATION

REFERENCES:

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ADDITIONAL INFORMATION:

This species is known from only four sites in California; two have not been seen in many years (Skinner and Pavlik 1994).

Revised: 1990-03-21 (SST)
1994-11-02 (DBI)
1998-12-17 (DJG)
2003-11-30 (AMS)

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