

ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract

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CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Astragalus sophoroides*
COMMON NAME: Tuba City milk-vetch; Painted Desert milkvetch
SYNONYMS: *Cnemidophacos sophoroides* Rydb.
FAMILY: Fabaceae

AUTHOR, PLACE OF PUBLICATION: M.E. Jones, Zoë 2: 12. 1891.

TYPE LOCALITY: "Willow Springs on the Moencoppa, northern Arizona, June 10, 1890."

TYPE SPECIMEN: Protologue - M.E. Jones s.n.

TAXONOMIC UNIQUENESS: The species *sophoroides* is 1 of 350 in the genus *Astragalus*.

DESCRIPTION: A low, loosely tufted, shortly caulescent perennial, with stems erect or decumbent ascending, 3–20 cm (1.18-7.87 in) tall. Leaves are 3–8 cm (1.18-3.15 in) long, with 7 to 13 narrowly oblong to elliptic silvery-sericeous leaflets. Racemes are 7 to 17 flowered. Calyx is 5-6 mm long, densely white-strigulose; reddish lilac flowers are 5-10 mm long. Pods are oblong-ellipsoid, erect or nearly so, 6–8 mm long and 3–4 mm in diameter; ovules 4–6, seeds brown, smooth, and lustrous. (ARPC 2001).

AIDS TO IDENTIFICATION: *Astragalus sophoroides* differs from *A. flavus* var. *candicans* by the slightly accrescent calyx, withering but persistent petals, and fewer ovules (ARPC 2001).

ILLUSTRATIONS: B&W line drawing (ARPC 2001).
Color photos of plant and habitat (NNHP in ARPC 2001)

TOTAL RANGE: Endemic to the Navajo Nation, eastern Coconino County, Arizona.

RANGE WITHIN ARIZONA: Known only between Cameron and The Gap, from the Little Colorado River Basin and Moenkopi Wash area around the northern edge of the Painted Desert in eastern Coconino County. Also reported from Clear Creek north of West Fork, Grand Canyon NP by J.A. McCleary in 1955, but has not been reported from this area since.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Perennial forb/herb that forms colonies but is very local.

PHENOLOGY: Flowers May to June.

BIOLOGY:

HABITAT: Commonly on red Moenkopi Sandstone, sandy flats and knolls, ledges and in sandy pockets of dry cliffs and desert washes, between 4,200 to 5,000 ft (1280-1525 m) elevation.

ELEVATION: 4,200 – 5,180 ft (1280-1580 m).

EXPOSURE:

SUBSTRATE: Sandy soils.

PLANT COMMUNITY: Great Basin desertscrub community. Associated species west of Tuba City, Arizona (in 1992) include *Sporobolus arroides* and *Parryella filifolia*.

POPULATION HISTORY AND TRENDS: Very local. From an area 16-24 km in diameter (NatureServe 2002).

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS:

STATE STATUS:

OTHER STATUS:

No Status (NNDFW, NESL 2005)
[Group 4 (NNDFW, NESL 2000)]

MANAGEMENT FACTORS:

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS:

LAND MANAGEMENT/OWNERSHIP: BIA – Navajo Nation.

SOURCES OF FURTHER INFORMATION

REFERENCES:

- Arizona Rare Plant Committee (ARPC). 2001. Arizona rare plant field guide. U.S. Government Printing Office.
Hevron, B. 1601. 20 May 1992. ASC 053352.

- Integrated Taxonomic Information System (ITIS). Retrieved 2/5/2003 from ITIS. <http://www.itis.usda.gov>.
- Kearney, T.H., R.H. Peebles, and collaborators. 1951. Arizona Flora. University of California Press, Berkeley, California. P. 458.
- McDougall, W.B. 1973. Seed plants of Northern Arizona. The Museum of Northern Arizona, Flagstaff, Arizona. Pp. 256-257.
- Missouri Botanical Garden – TROPICOS, Nomenclatural Data Base. *Astragalus sophoroides* M.E. Jones. <http://mobot.mobot.org/>. Accessed: 5 Feb 2003.
- NatureServe Explorer: An online encyclopedia of life [web application]. 2002. Version 1.6. Arlington, Virginia, USA: NatureServe. Available: <http://www.natureserve.org/explorer>. (Accessed: February 5, 2003).
- Navajo Nation, Fish and Wildlife Department. 2000. Navajo Endangered Species List.
- Navajo Nation Department of Fish and Wildlife. 2005. Navajo Endangered Species List. The Navajo Nation. Window Rock, Arizona.
- USDA, NRCS. 2002. The PLANTS Database, Version 3.5 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

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ADDITIONAL INFORMATION:

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