

ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract

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CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Astragalus sophoroides* M.E. Jones

COMMON NAME: Tuba City milk-vetch; Painted Desert milkvetch

SYNONYMS: *Cnemidophacos sophoroides* Rydb.

FAMILY: Fabaceae

AUTHOR, PLACE OF PUBLICATION: M.E. Jones, Zoë 2(1): 12. 1891.

TYPE LOCALITY: Willow Springs, Moencoppa River, Coconino County, northern Arizona, USA.

TYPE SPECIMEN: HT: ? Protologue - M.E. Jones s.n. [10 Jun 1890]. IT: US-47152.

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 (1.2–8 in) tall. Leaves are 3–8 cm (1.2–3.2 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. (Falk and Jenkins et al. 2001).

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

ILLUSTRATIONS: B&W line drawing (Falk and Jenkins et al. 2001).
Color photos of plant and habitat (NNHP in Falk and Jenkins et al. 2001)
Color photo of Isotype (US-47152, USNM, in
<http://ravenel.si.edu/botany/types/fullRecords.cfm?myFamily=>)

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

RANGE WITHIN ARIZONA: Between Cameron and The Gap, east to Tuba City. Potential distribution from the Little Colorado River drainage from the Leupp area to the Cameron area,

then north to the Gap. 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 from mid May to mid 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; Chinle formation.

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

EXPOSURE:

SUBSTRATE: Sandy soils. Commonly on red sandstone.

PLANT COMMUNITY: Great Basin desertscrub community. Associated species include: *Atriplex confertifolia* (shadscale), *A. obovata* (silver saltbush), *Hilaria jamesii* (= *Pleuraphis jamesii*, James' galleta), *Parryella filifolia* (narrowleaf dunebroom), *Sphaeralcea* sp. (globemallow), and *Sporobolus airoides* (alkali sacaton). (SEINet accessed 2005).

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

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None

STATE STATUS: None

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

MANAGEMENT FACTORS: May be impacted by grazing, but perhaps toxic; development possible in future, since there is a town nearby. (NatureServe 2005). According to Roth (2001), the recommended avoidance of this species to avoid disturbance, should be about a 200 ft buffer zone.

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS: Additional surveys need to be conducted in those areas that may be potential habitat for this species, keeping in mind that positive identification is only possible during the flowering/fruitletting time from May through June.

LAND MANAGEMENT/OWNERSHIP: BIA – Navajo Nation.

SOURCES OF FURTHER INFORMATION**REFERENCES:**

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ADDITIONAL INFORMATION:

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