

ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract

Element Code: PDFAB0F0K1

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Astragalus amphioxys* var. *musimonum* (Barneby) Barneby
COMMON NAME: Sheep Range milk-vetch, Sheep Mountain milkvetch, Crescent milkvetch
SYNONYMS: *Astragalus musimonum* Barneby
FAMILY: Fabaceae

AUTHOR, PLACE OF PUBLICATION: *Astragalus amphioxys* var. *musimonum* Barneby, Intermountain Flora 3B: 138. 1989. *Astragalus musimonum* Barneby, Proceedings of the California Academy of Sciences, Series 4, 25(3): 150-152, pl. 17, f. 1-9. 1944.

TYPE LOCALITY: Sheep Mts., near the entrance to Deadman Canyon, Clark County, Nevada, 5700 ft. May 5, 1941.

TYPE SPECIMEN: HT: CAS-300411. Ripley & Barneby 3332, 5 May 1941. IT: RSA!

TAXONOMIC UNIQUENESS: One of four varieties of *Astragalus amphioxys*, within the large genus of *Astragalus*, which contains more than 2000 species globally, and 350 in North America. All four varieties occur in Arizona, and not only include var. *musimonum*, but var. *amphioxys*, var. *vespertinus*, and var. *modestus*. According to NatureServe (2002), this is "A problematic species in the largest genus of flowering plants in Arizona. Kearney & Peebles' supplement (1960) notes that *Astragalus musimonum* was misidentified in the text. Taxonomic discrepancies exist. Kartesz (1994 checklist) treats as *Astragalus amphioxys* var. *musimonum*; sometimes treated as the species *A. musimonum*."

DESCRIPTION: Low, tufted perennial with dense silvery pubescence covering all surfaces and straight, appressed hairs up to 1.2 mm long. The prostrate stems are very short, to 2 cm (0.8 in) or exceptionally long, to 7cm (2.8 in). The internodes are also very short, varying from shorter to twice the length of the 3 to 4 mm stipules. The leaves are 4 to 7 cm (1.6–2.8 in) long and bear 11 to 17 small leaflets. Racemes are loosely 3–10 flowered, with flowers ascending. The axis becoming 5–45 mm long; fruiting pedicels persistent; calyx 6–14 mm long, either white- or black-strigulose, with a shallowly campanulate tube. The petals are bright pink-purple or magenta and have a banner with a pale eye or white center. Pods are ascending or incurved-ascending, about 1.5 to 2 cm (0.6–0.8 in) long, compressed with a central ridge on the lower surface lying in a double groove.

AIDS TO IDENTIFICATION: The *musimonum* variety is distinctive for its shallow calyx-tube. The claws of its petals are also shorter than the other *A. amphioxys* varieties.

The species *Astragalus amphioxys* represents a group of astragali locally abundant on the dry valley floors, hillsides, and desert playas of the Colorado Plateau that are collectively characterized by a tufted growth form, medifixed pubescence, free stipules, long narrow, commonly pink-purple flowers, and essentially uniocular pods (Barneby, in <http://ginger.ucdavis.edu>).

ILLUSTRATIONS: Line drawing of seed pod (Cronquist et al, 1989: p. 139)
Line drawing (Mozingo and Williams, 1980: p. 110)
Color photo of species (M.F. Wojciechowski, in http://ginger.ucdavis.edu/astragalus/images/Astragalus_images/Aamphioxys.htm)

TOTAL RANGE: Clark and Lincoln counties, Nevada, and Mohave County, Arizona.

RANGE WITHIN ARIZONA: Shivwits Plateau, Mohave County.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Small, short-lived herbaceous perennial.

PHENOLOGY: Flowering in spring, from April to June.

BIOLOGY:

HABITAT: Upper bajadas, gentle slopes, dirt roads, and disturbed areas in mixed desert shrub communities.

ELEVATION: Found between 4,400–6,000 feet (1342-1830 meters).

EXPOSURE:

SUBSTRATE: Calcareous gravel slopes, and carbonate alluvial gravels.

PLANT COMMUNITY: Sagebrush, pinyon-juniper, blackbrush, and shadscale. Associated plants in Nevada include: *Artemisia spinescens* (= *Picrothamnus desertorum*, bud sagebrush), *Atriplex confertifolia* (shadscale), *Coleogyne ramosissima* (blackbush), *Pinus edulis* (pinyon pine), *Juniperus* sp. (juniper), and *Yucca brevifolia* (Joshua tree). (Mozingo and Williams, 1980).

POPULATION HISTORY AND TRENDS: Unknown.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None (USDI, FWS 1996)
[C2 *A. amphioxys* var. *musimonum* USDI, FWS 1993]
[C2 USDI, FWS 1990]
[C2 USDI, FWS 1985]
[C2 *Astragalus musimonum* USDI, FWS 1983]

STATE STATUS: None

OTHER STATUS: Forest Service Sensitive (USDA, FS Region 3, 1999)

MANAGEMENT FACTORS:

PROTECTIVE MEASURES TAKEN: In Nevada, protected on the USFWS Desert National Wildlife Refuge.

SUGGESTED PROJECTS:

LAND MANAGEMENT/OWNERSHIP:

SOURCES OF FURTHER INFORMATION

REFERENCES:

- Cronquist, A. et al. 1989. Intermountain Flora: Vascular Plants of the Intermountain West, U.S.A. Volume Three, Part B, Fabales by Rupert C. Barneby. The New York Botanical Garden. Bronx, New York. P. 138-139.
- <http://desertcomplex.fws.gov/desertrange/endangered.htm>.
- http://ginger.ucdavis.edu/astragalus/images/Astragalus_images/Aamphioxys.htm.
- Integrated Taxonomic Information System (ITIS). Retrieved 7/20/2004 from ITIS, <http://www.itis.usda.gov>.
- Mozingo, H.N., and M. Williams. 1980. Threatened and endangered plants of Nevada. Missouri Botanical Garden – TROPICOS, Nomenclatural Data Base. *Astragalus amphioxys* var. *musimonum* (Barneby) Barneby. http://mobot.mobot.org/cgi-bin/search_vast. Accessed: 20 July 2004, 7 September 2005.
- NatureServe Explorer: An online encyclopedia of life [web application]. 2001. Version 1.6. Arlington, Virginia, USA: NatureServe. Available: <http://natureserve.org/explorer>. (Accessed: August 2, 2002).
- Nevada Natural Heritage Program. Rare Plant Fact Sheet: *Astragalus amphioxys* A. Gray var. *musimonum* (Barneby) Barneby, Sheep Mountain milkvetch. Compiled 25 June 2001.
- SEINet. Collections Search Result. Accessed 7/20/2004 at <http://seinet.asu.edu/collections/list.jsp>.
- Spellenberg, R. 1978. Notes and News, Fabaceae. Madrono 25: 169-170.
- USDA, Forest Service Region 3. 1999. Regional Forester's Sensitive Species List.

- USDA, NRCS. 2001. The PLANTS Database, Version 3.1 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70876-4490, USA.
- USDA, NRCS. 2004. The PLANTS Database, Version 3.5 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.
- USDI, Fish and Wildlife Service. 1983. Endangered and Threatened Wildlife and Plants; Supplement to Review of Plant Taxa for Listing; Proposed Rule. Federal Register 48(229): 53645.
- USDI, Fish and Wildlife Service. 1983. Endangered and Threatened Wildlife and Plants; Review of Plant Taxa for Listing as Endangered or Threatened Species; Notice of Review. Federal Register 50(188): 6.
- USDI, Fish and Wildlife Service. 1990. Endangered and Threatened Wildlife and Plants; Review of Plant Taxa for Listing as Endangered or Threatened Species; Notice of Review. Federal Register 55(35): 6190.
- USDI, Fish and Wildlife Service. 1993. Endangered and Threatened Wildlife and Plants; Review of Plant Taxa for Listing as Endangered or Threatened Species; Notice of Review. Federal Register 58(188): 51151.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

Rupert Barneby – New York Botanical Garden, Bronx, New York.

ADDITIONAL INFORMATION:

Revised: 2002-07-31 (MEP)
2002-08-02 (SMS)
2004-08-12 (SMS)
2005-10-31 (SMS)

To the user of this abstract: you may use the entire abstract or any part of it. We do request, however, that if you make use of this abstract in plans, reports, publications, etc. that you credit the Arizona Game and Fish Department. Please use the following citation:

Arizona Game and Fish Department. 20XX (= **year of last revision as indicated at end of abstract**). X...X (= **taxon of animal or plant**). Unpublished abstract compiled and edited by the Heritage Data Management System, Arizona Game and Fish Department, Phoenix, AZ. X pp.