

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

Plant Abstract

Element Code: PDFAB0F5Y5

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Astragalus newberryi* var. *aquarii*

COMMON NAME: Aquarius milkvetch, Newberry's milkvetch

SYNONYMS:

FAMILY: Fabaceae (Pea Family)

AUTHOR, PLACE OF PUBLICATION: Isely, Systematic Botany 8(4): 423-424. 1983.

TYPE LOCALITY: "Arizona, Mohave Co., 1.5 miles W of Burro Creek at Yavapai County line, Aquarius Mountains, 2000 ft, Sonoran Desert..." Benson & Darrow 10898 (HT: ARIZ).

TYPE SPECIMEN: HT: ARIZ. Benson and Darrow 10898, 18 Apr 1941.

TAXONOMIC UNIQUENESS: There are over 2000 species of *Astragalus* worldwide, and 350 in North America. It is the most abundant genus of flowering plants found in Arizona with about 105 species/varieties documented. The variety *aquarii* is 1 of 5 varieties of *Astragalus newberryi* in the United States, and 1 of 3 in Arizona.

DESCRIPTION: A small, herbaceous acaulescent perennial from a thatched caudex, with appressed-silky herbage, and free imbricated stipules, 5-9 mm long. Leaves are 1 to 3, foliolate, elliptic, obtuse, 4 to 15 mm long; the peduncles are scapose, and shorter than the leaves. The racemes are rather short, 3 to 8 flowered. The calyx is cylindrical, 10-11 mm long (7-8 mm per Isely 1983), the teeth 2-5 mm long. Flowers are pink-purple, sometimes pale, 15 mm long. The pods are densely white-villous, spreading, sessile, ovoid, incurved into a stiff, lateral compressed beak. The leathery valves are concealed by the dense, woolly coat.

AIDS TO IDENTIFICATION: *A. newberryi* is peculiar among the acaulescent species in Arizona in having the pods densely villous with long, soft hairs. The variety *aquarii* has smaller flowers and fewer leaflets (1-3) per leaf relative to the typical variety *newberryi*, which has large flowers 17-32 mm long and 3-15 leaflets per leaf.

ILLUSTRATIONS:

Line drawing (B. Dennis, *in* Falk and Jenkins et al. 2001)

Color photos of plant and habitat (John Anderson/BLM, *in* Falk and Jenkins et al. 2001)

TOTAL RANGE: Burro Creek, Mohave County, Arizona.

RANGE WITHIN ARIZONA: See "Total Range."

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Small low growing herbaceous acaulescent perennial.

PHENOLOGY: Flowering/fruitlet mid-February to mid-April.

BIOLOGY:

HABITAT: The seraphic islands on which this species grows do not support Sonoran Desert dominants such as creosote bush and foothill paloverde. Occurs with other rare plants such as *Purshia subintegra* and *Phacelia parishii* mostly in the BLM (Bureau of Land Management) Clay Hills Area of Critical Environmental Concern. (Anderson 1999).

ELEVATION: 2,000 - 2,600 ft (610-793 m).

EXPOSURE:

SUBSTRATE: Limey clay soil. Per Anderson (ASU 145311), on white Miocene (Pliocene age lacustrine deposit). Soil is endemic on late Tertiary lacustrine deposits of inter-bedded white limestone and ash flows within the Sonoran desert.

PLANT COMMUNITY: Sonoran desertscrub. Associated species include: *Canotia holacantha* (Crucifixion-thorn), *Juniperus* sp. (juniper), *Krameria parviflora* (range ratany), *Nolina bigelovii* (Bigelow's bear-grass), *Phacelia parishii* (Parish's phacelia), and *Purshia subintegra* (Arizona cliffrose).

POPULATION TRENDS: Unknown.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None

STATE STATUS: None

OTHER STATUS: Bureau of Land Management Sensitive
(USDI, BLM 2000, 2005, 2008, 2010)

MANAGEMENT FACTORS:

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS: Distribution studies should include a more thorough search of the area in the vicinity of Burro Creek. Studies also need on habitat and ecological factors.

LAND MANAGEMENT/OWNERSHIP: BLM - Kingman Field Office; Private.

SOURCES OF FURTHER INFORMATION

REFERENCES:

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MAJOR KNOWLEDGEABLE INDIVIDUALS:

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ADDITIONAL INFORMATION:

Revised: 2000-02-05 (RHB)
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