

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

**Plant Abstract**

**Element Code:** PDFAB0F9Z0

**Data Sensitivity:**       No      

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Astragalus holmgrenorium* Barneby  
**COMMON NAME:** Holmgren Milk-vetch, Paradox Milk-vetch  
**SYNONYMS:** None  
**FAMILY:** Fabaceae (Leguminosae)

**AUTHOR, PLACE OF PUBLICATION:** Holmgren. Brittonia 32:24 1980

**TYPE LOCALITY:** Mokiah Wash, 13.5 km south of St George, Utah, in Mohave Co., Arizona.

**TYPE SPECIMEN:** NY! N. Holmgren, P. Holmgren and Barneby #9175.

**TAXONOMIC UNIQUENESS:**

**DESCRIPTION:** Dwarf, tufted, strictly acaulescent, perennial herb. Lanceolate or lance-attenuate free blades membranous, becoming papery, 3.8-8.0 mm (0.15-0.24 in.) long; leaves mostly appressed to ground, 4.0-13.0 cm (0.16-0.52 in.) long, leaflets 9-15, broadly obovate-emarginate to obcordate, up to 8.0-16.0 mm (0.24-0.64 in.) long.

**AIDS TO IDENTIFICATION:** Only true stemless astragalus with trigonously compressed, bilocular pod that disjoints from the receptacle prior to dehiscence. Leaves pilose below, glabrous above and dark green.

**ILLUSTRATIONS:** Line drawing (USFWS; USFS 1991, Atwood et al).

**TOTAL RANGE:** Mohave County, Arizona border; St. George, Utah Basin, Washington County, Utah.

**RANGE WITHIN ARIZONA:** Mohave County, Arizona border.

**SPECIES BIOLOGY AND POPULATION TRENDS**

**GROWTH FORM:** Herbaceous perennial. Per Hughes (1999), "Biennial really. In my plot, I changed tags every two years."

**PHENOLOGY:** Late April - May.

**BIOLOGY:**

**HABITAT:** Draws in gravelly clay hills at upper edge of *Larrea* zone (Mokiah Wash drainage). Associated with *Lycium andersonii*.

**ELEVATION:** 2,740 - 2,800 ft. (836-854 m).

**EXPOSURE:** Southerly.

**SUBSTRATE:** Cave soil association. Well drained shallow gravelly loams, alluvial fans and rock outcrops.

**PLANT COMMUNITY:** Great Basin shrub community.

**POPULATION TRENDS:** Per Hughes (1999), counts of adult plants on plot were as follows, 1988: 177; 1989: 135; 1990: 0; 1991: 74; 1992: 283; 1993: 179; 1994: 38; 1994: 43; 1998: 1; 1999: 1. Trend is down.

## **SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** Listed Endangered (USDI, FWS 2001)  
[Candidate USDI, FWS 1996]  
[Category 1 USDI, FWS 1993]  
[Category 2 USDI, FWS 1990]  
[Category 2 USDI, FWS 1985]  
[Category 2 USDI, FWS 1983]

**STATE STATUS:** Highly Safeguarded (ADA, ANPL 1993)

**OTHER STATUS:** None (USDI, BLM AZ 2005)  
[Bureau of Land Management Sensitive  
(USDI, BLM AZ 2000)]

**MANAGEMENT FACTORS:** Only occurs on State Land.

**PROTECTIVE MEASURES TAKEN:** None.

**SUGGESTED PROJECTS:**

**LAND MANAGEMENT/OWNERSHIP:** State Land Department.

## **SOURCES OF FURTHER INFORMATION**

### **REFERENCES:**

- Arizona Revised Statutes, Chapter 7. 1993. Arizona Native Plant Law. Appendix A.  
Atwood, et. al. 1991. Utah endangered, threatened and sensitive plant field guide. USFS, Intermountain Region, Ogden, Utah.

- Barneby, R.B. 1980. *Dragma Hippomanicum* V: Two new astragali from intermountain United States. *Brittonia* 32(1):24-29.
- Hughes, L.E. 1999. Personal communication in review of AGFD, HDMS draft abstract of *Astragalus holmgreniorum*.
- USDI, Bureau of Land Management. 2000. Arizona BLM Sensitive Species List. Instruction Memorandum No. AZ-2000-018.
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- 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.
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- USDI, Fish and Wildlife Service. 1996. Endangered and Threatened Wildlife and Plants; Review of Plant and Animal Taxa that are Candidates for Listing as Endangered or Threatened Species. Notice of Review; Proposed Rule. *Federal Register* 61(40):7603.
- USDI, Fish and Wildlife Service. 2001. Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for *Astragalus holmgreniorum* (Holmgren milk-vetch) and *Astragalus ampullarioides* (Schivwits milk-vetch); Final Rule. *Federal Register* 66(189):49560-49567.

**MAJOR KNOWLEDGEABLE INDIVIDUALS:**

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**ADDITIONAL INFORMATION:**

**Revised:** 1995-06-06 (DBI)  
1999-12-20 (DJG)  
2000-03-24 (LEH)

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