

ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract

Element Code: PDFAB0F5P3

Data Sensitivity: No

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Astragalus cottamii*  
**COMMON NAME:** Cottam's Milkvetch  
**SYNONYMS:** *Astragalus monumentalis* var. *cottamii*  
**FAMILY:** Fabaceae

**AUTHOR, PLACE OF PUBLICATION:** Welsh. Stanley Larson. *Rhodora* 72(790):  
189-191. 1970.

**TYPE LOCALITY:** Utah: San Juan Co.: ca. 4 miles E of Clay Hills Divide.

**TYPE SPECIMEN:** NY 5371 (isotype; holotype at BRY). S.L. Welsh, #5207. May 1,  
1966.

**TAXONOMIC UNIQUENESS:** *Astragalus* is believed to be the largest genus of flowering plants in the world, with over 2500 species worldwide and over 400 species in North America alone, primarily in arid regions of the western U.S. There are an additional 200 plus varieties found in the U.S. and Canada as well. *A. cottamii* is a Colorado Plateau species endemic to the Four Corners region.

**DESCRIPTION:** Perennial, slightly tufted herb; stems 1.5-4.0 cm long, branching beneath the ground; leaves 1-4 cm long; leaflets 9-19, elliptic to oblanceolate, acute to obtuse, strigose on both surfaces with basifixed hairs or nearly glabrous above, 2-9 mm long 1.0-4.2 mm wide; racemes 3-9 flowered; flowers pea-like; calyx 6.2-8.0 mm long, purplish; flowers 11-17 mm long, purplish or purple and white; pods spreading-descending, sessile, curved, oblong to oblong-lanceolate, somewhat three-angled, two-chambered, hairy, usually purplish spotted (NMRPTC 1999).

**AIDS TO IDENTIFICATION:** *Astragalus monumentalis* of adjacent Utah is very similar, but differs by its smaller flower parts, overall smaller flower size, and presence of slightly dolabriform hairs. *Astragalus naturitensis* differs by having fruits somewhat shorter (13-22 mm), greater in diameter (4-6 mm), and dorso-ventrally compressed rather than three-angled (NMRPTC 1999).

**ILLUSTRATIONS:**

Photo and Line Drawing: [http://nmrareplants.unm.edu/rarelist\\_single.php?SpeciesID=185](http://nmrareplants.unm.edu/rarelist_single.php?SpeciesID=185).

**TOTAL RANGE:** The Four Corners Region: Utah, Arizona, New Mexico.

**RANGE WITHIN ARIZONA:** Known only from two collections in northern Navajo County: Tsegi Canyon and Monument Valley.

### **SPECIES BIOLOGY AND POPULATION TRENDS**

**GROWTH FORM:** Perennial herb.

**PHENOLOGY:** Flowering: April and May.

#### **BIOLOGY:**

**HABITAT:** Rimrock habitats often within weathered depressions and crevices in sandstone substrates of Cretaceous origin in piñon-juniper woodland.

**ELEVATION:** 4297 - 6215 feet (1310-1895m).

**EXPOSURE:** Variable.

**SUBSTRATE:** Cretaceous origin sandstone.

**PLANT COMMUNITY:** Pinon-Juniper woodlands, and blackbrush (*Coleogyne ramosissima*) communities.

**POPULATION HISTORY AND TRENDS:** Unknown. Only two collections from Arizona. No data on abundance or population trend. Can be locally abundant within its habitats (NMRPTC 1999).

### **SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** None.

**STATE STATUS:** None.

**OTHER STATUS:** New Mexico Rare Plant (NMRPTC 1999).

**MANAGEMENT FACTORS:** Although there is much energy development within the range of this species, oil and gas activities are unlikely to have a severe affect as this species seems to prosper in slightly disturbed areas (NMRPTC 1999).

**PROTECTIVE MEASURES TAKEN:** Identified as a rare plant in New Mexico.

**SUGGESTED PROJECTS:**

**LAND MANAGEMENT/OWNERSHIP:** USDI Bureau of Indian Affairs – Navajo Nation.

**SOURCES OF FURTHER INFORMATION****REFERENCES:**

- Barneby, R.C. 1964. Atlas of North American Astragalus. Memoirs of the New York Botanical Garden 13:1-1188.
- Isely, D. 1998. Native and naturalized Leguminosae (Fabaceae) of the United States. Monte L. Beane Life Science Museum, Brigham Young University, Provo, Utah.
- JStor| Global Plants, accessed 2/2/2016, <http://plants.jstor.org/stable/10.5555/al.ap.specimen.ny00005371>.
- New Mexico Rare Plant Technical Council. 1999. New Mexico Rare Plants. Albuquerque, NM: New Mexico Rare Plants Home Page. <http://nmrareplants.unm.edu> (Compiled by Paul Knight 1999).
- Tropicos, accessed 2/2/2016, <http://www.tropicos.org/Name/13002074>.
- Welsh, S. 1970. An undescribed species of Astragalus from Utah. Rhodora 72:189-193.
- Welsh S.L., N.D. Atwood, L.C. Higgins and S. Goodrich. 1993. A Utah flora, 2nd ed. Brigham Young University Press, Provo, Utah

**MAJOR KNOWLEDGEABLE INDIVIDUALS:****ADDITIONAL INFORMATION:**

**Revised:** 2016-02-02 (BDT)

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.