

ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract

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**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Astragalus chuskanus*  
**COMMON NAME:** Chuska Milk-Vetch  
**SYNONYMS:** none  
**FAMILY:** Fabaceae

**AUTHOR, PLACE OF PUBLICATION:** Barneby & Spellenberg 1987, Brittonia 39 (2): 188-191, f.1. 1987.

**TYPE LOCALITY:** West of Washington Pass, Chuska Mts., San Juan Co., New Mexico.

**TYPE SPECIMEN:** NY. R. Spellenberg #8521 et al., 28 June 1986.

**TAXONOMIC UNIQUENESS:** >2,000 species worldwide, 380 in N. America (Hickman 1993), and > 6 dozen in Arizona (Epple 1995). Very difficult to identify, need both flower and fruit (Hickman 1993).

**DESCRIPTION:** Many freely branching, densely leafy stems to 3.5 (4) dm, radiating from the scarcely indurated multidipital crown of a taproot, originating at soil surface but commonly buried for more than half the length by sand moving downslope, densely softly pilosulous throughout with fine, spreading-ascending, mixed sinuous and straighter basifixed hairs to " 1mm, the foliage shivery-grey. Stipules 2-5.5 mm, the small lowest ones early scarios, the upper herbaceous, all connate-amplexicaul, the lowest into cuplike sheath, the upper with deltate-acuminate, often squarrose blades, internally glabrous or thinly pubescent near the tip. Leaves arcuately spreading, (1) 1.5-4cm long, the petiole " 0.5-1.3 cm, the rachis (0.5) 1-2.5 cm. Leaflets (7) 9-15, subsessile, decrescent upward along rachis, obovate- or oblong-elliptic, abruptly acuminate, convex ventrally, (1.5) 2.5-9 x (0.7) 1-3 (4) mm. Peduncles subliform, 1.5-2.5 cm long, at antheses incurved-ascending; humistrate in fruit. Racemes shortly but loosely 4-10 flowered, the flowers ascending-spreading, the axis scarcely elongating, in fruit 3-12 mm long; bracts narrowly lanceolate, 2-3.5 mm long; pedicels ascending and contorted hairs, sometimes faintly purple-specked, not inflexed; dehiscence apical, thorough the gaping beak. Ovules (4) 6; seeds brown, purple-dotted, smooth, dull, 1.9-2.5 mm long (Barneby and Spellenberg 1987).

**AIDS TO IDENTIFICATION:** Along the lower edge of its elevational range it is weakly sympatric with *A. humistratus* var. *humistratus* but is otherwise entirely above that species. With this exception, it is the only *Astragalus* noted within its area (Barneby and Spellenberg, 1987).

**ILLUSTRATIONS:** Line drawing of habit, flower, petals, pod and seeds (Barneby and Spellenberg 1987: 189.)

**TOTAL RANGE:** Chuska Mts., San Juan County, New Mexico; Chuska Mts. and Tunitcha Mts., Apache, County Arizona.

**RANGE WITHIN ARIZONA:** Chuska Mts. and Tunitcha Mts., Apache County.

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

**GROWTH FORM:** Humifuse matted perennial herb.

**PHENOLOGY:** Flowering may begin as early as late May and proceeds through the summer, the first fruits forming near the beginning of July (Barneby 1987).

#### **BIOLOGY:**

**HABITAT:** Most common on comparatively open and dry rocky knoll tops and on rocky slopes, where it forms a seed source for plants colonizing roadbanks below (Barneby, 1987), within the Rocky Mountain Montane Conifer Forest community.

**ELEVATION:** 7,380-9,000 ft. (2410-3520 m.)

#### **EXPOSURE:**

**SUBSTRATE:** Degraded Chuska Sandstone (Barneby, 1987).

**PLANT COMMUNITY:** Rocky Mountain Montane Conifer Forest community (Brown 1994). Associated species include *Pinus ponderosa*, *Pseudotsuga menziesi*, and *Junipererus scopulorum* (Barneby 1987).

**POPULATION TRENDS:** unknown

### **SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** none

**STATE STATUS:** none

**OTHER STATUS:** none

#### **MANAGEMENT FACTORS:**

**PROTECTIVE MEASURES TAKEN:****SUGGESTED PROJECTS:****LAND MANAGEMENT/OWNERSHIP:** BIA - Navajo Nation.**SOURCES OF FURTHER INFORMATION****LITERATURE CITATIONS:**

Barneby, R. C. and R. Spellenberg, 1987. *Brittonia* 39(2): 188-191.

Brown, D. ed. 1994. *Biotic Communities of the Southwestern United States and Northwestern Mexico*. University of Utah Press. Salt Lake City. 145-155.

Epple, A. O. 1995. *A Field Guide to Plants of Arizona*, Falcon Publishing Co., Helena, MT. 105 p.

Hickman, J. C. 1993. *The Jepson Manual, Higher Plants of California*, University of California Press. Berkeley. 583 p.

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**ADDITIONAL INFORMATION:****Revised:** 1998-12-17 (RHB)

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