

Astragalus geyeri* A. Gray var. *triquetrus* (A. Gray) M. E. Jones*THREECORNER MILKVETCH****FAMILY:** *Fabaceae*, the legume family.**SYNONYMS:** *Astragalus triquetrus***STATUS:**

Heritage Program SENSITIVE LIST, ranks: G4? T2T3 S2S3

USFWS/ESA: species of concern. STATE OF NEVADA: FULLY PROTECTED. BLM: Special Status Species in Nevada. USFS: none. NNNPS: THREATENED.

POPULATION CENSUS (NEVADA): 39 extant occurrences mapped at 1.0 km (0.6 mi) separation, OR 45 extant and 1 extirpated occurrences mapped at 0.16 km (0.1 mi) separation; total estimated individuals 4094+, total estimated area unknown. **TREND:** unknown.**IMPACTS AND MAJOR THREATS (NEVADA):** Off-road vehicles and other recreational use of the habitat, residential expansion, sand and gravel mining, utility developments and corridors, etc. An unknown but potentially significant amount of habitat was lost to inundation by Lake Mead. The species germinates only in wetter years, potentially resulting in accidental losses of undetected populations.**INVENTORY EFFORT (NEVADA):** Surveys in Nevada have been extensive but likely remain incomplete. Most recent entered survey 1997, average year of last survey 1987. **Years since last entered survey** (percent of mapped records at various survey ages): **0-5 yrs:** 4.3%; **6-10 yrs:** 52.2%; **11-20 yrs:** 21.7%; **21-30 yrs:** 17.4%; **51+ yrs or unknown:** 4.3%.**LAND MANAGEMENT (NEVADA)** in decreasing predominance: U. S. Bureau of Land Management, National Park Service, Nevada state lands, private lands, Native American lands (?).**RANGE:** Clark and Lincoln counties, Nevada; also in AZ. Maximum Nevada **range dimension 105.0 km (65.3 mi)** excluding most disjunct record.**ELEVATIONS RECORDED (NEVADA):** 1100-2400 feet (335-732 meters).**HABITAT (NEVADA):** Open, deep sandy soil or dunes, generally stabilized by vegetation and/or a gravel veneer. Dependent on sand dunes or deep sand in Nevada.**PHENOLOGY:** flowering late-winter to early-spring. Range of most frequent **survey months:** February-May.**LIFE-FORM AND HABIT:** annual.**DESCRIPTION:** not available (see references).**PHOTOGRAPHS:** Niles et al. (1995); Nevada Natural Heritage Program slide collection (1986-present) and files.**ILLUSTRATIONS:** Barneby (1989), Mozingo and Williams (1980), Niles et al. (1995).**OTHER GENERAL REFERENCES** (listed separately): Barneby (1964), Holland et al. (1980), Kearney and Peebles (1960), Niles et al. (1997).**SPECIFIC REFERENCES:**Knight, T. A. 1990. Status report for *Astragalus geyeri* A. Gray *triquetrus* (A. Gray). Carson City: Nevada Natural Heritage Program, prepared for the U. S. Fish and Wildlife Service, Reno.

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