

CANDIDATE ASSESSMENT AND LISTING PRIORITY ASSIGNMENT FORM

SCIENTIFIC NAME: *Astragalus tortipes*

COMMON NAME: Sleeping Ute milkvetch

LEAD REGION: 6

INFORMATION CURRENT AS OF: January, 2003

STATUS/ACTION:

New candidate

Continuing candidate

Non-petitioned

Petitioned - Date petition received: ____

90-day positive - FR date: ____

12-month warranted but precluded - FR date: ____

Is the petition requesting a reclassification of a listed species?

Listing priority change

Former LP: ____

New LP: ____

Latest Date species first became a Candidate: February 28, 1996

Candidate removal: Former LP: ____

A - Taxon more abundant or widespread than previously believed or not subject to a degree of threats sufficient to warrant issuance of a proposed listing or continuance of candidate status.

F - Range is no longer a U.S. territory.

M - Taxon mistakenly included in past notice of review.

N - Taxon may not meet the Act=s definition of A species.@

X - Taxon believed to be extinct.

ANIMAL/PLANT GROUP AND FAMILY: *Fabaceae*

HISTORICAL STATES/TERRITORIES/COUNTRIES OF OCCURRENCE: Colorado

CURRENT STATES/COUNTIES/TERRITORIES/COUNTRIES OF OCCURRENCE:
Colorado

LEAD REGION CONTACT: Chuck Davis, (303) 236-7400, extension 235

LEAD FIELD OFFICE CONTACT: Terry Ireland, Grand Junction, Colorado, (970) 243-2778

BIOLOGICAL INFORMATION: This species is found on the Ute Mountain Ute Indian Reservation in a restricted area on the southeastern flank of Sleeping Ute Mountain, approximately 15 miles southwest of Cortez, Montezuma County, Colorado. It grows in scattered colonies on the lower slopes of ridges and knolls between 1,585-1,768 meters

(5,200-5,800 feet) elevation. In April and May of 2000 a survey was conducted (Colyer 2000). The surveyors found the milkvetch on 24 of 30 knolls, ridges, or drainage areas surveyed over a 10 square mile-area. Though the area encompassing the plants range is about 64,000 acres the plant only occurs on 500 acres within the range (Colyer 2000). With knowledge of the habitat requirements, it was estimated by the surveyors that the plant's range could extend another 5 mile to the southeast on Ute Mountain Ute land.

Astragalus tortipes grows in a mixed desert scrub community with several other Four Corners@ endemics such as *Eriogonum clavellatum* and *Astragalus cronquistii*. Timing of initiation of spring growth varies from year to year in response to favorable temperature and moisture, and the life cycle from flowering to fruiting is completed in about 2 weeks.

This species was first discovered in 1985. A field survey to determine its range, population size, and distribution was conducted in 1989 by Anderson (Anderson and Porter, 1994). General botanical surveys in the only known location with similar habitat (at the foot of the Henry Mountains in Utah) did not result in discovery of the species (Neese 1980, as referenced in Anderson and Porter, 1994).

THREATS:

A. The present or threatened destruction, modification, or curtailment of its habitat or range.

The Towaoc Canal was constructed from 1991-1993 through the western end of the plant's range, which impacted four colonies and fragmented the plant's distribution. Previously, this area was not accessible by vehicle, but canal construction has opened the area to vehicle use and associated impacts. Operation and maintenance of the canal also may have continued effects. Another impact to the habitat was a seismic grid that was laid out through the area in 1985 and 1986 with seismic lines through some of the colonies. However, there was no evidence of the lines during an October 2000 field trip by Service and other agency employees and there are currently no plans for oil or gas drilling in this area. This species occurs a few miles east of an agricultural area (the Ute Farms) being irrigated by the Towaoc Canal. The agricultural area is expected to expand eastward in the future with uncertain, but likely limited, impacts to the milkvetch. Impacts are likely limited because the milkvetch occurs in topographically hilly country. Excavation of borrow material about 20 years ago destroyed individual plants in an isolated colony 1-2 miles north and east of the other colonies. Currently, off-highway vehicle use on the hills adjacent to the excavated site is destroying individuals of this same colony. Despite prior and ongoing disturbance this colony was the sixth largest in 2000. Any additional activity that results in surface disturbance or alteration of habitat conditions where this species occurs will further threaten its continued existence.

B. Overutilization for commercial, recreational, scientific, or educational purposes.

None known.

C. Disease or predation.

During the spring 2000 survey it was observed that a handful of plants were clipped off by Gunnison prairie dogs (*Cynomys gunnisoni*). It is unlikely that with the small number of milkvetch clipped off by the prairie dogs, and with the small numbers of prairie dogs in the area, that prairie dog herbivory is more than a minor threat to the species. Additionally, the prairie dogs and the milkvetch have likely co-existed for hundreds or even thousands of years.

D. The inadequacy of existing regulatory mechanisms.

No local, State, Federal, or tribal regulations serve to protect or conserve this species. Without a long-term conservation agreement with the Ute Mountain Ute Tribe or without listing and consequent protection under Section 7 and 10 of the Endangered Species Act, development or recreational threats could continue to impact this species resulting in its eventual extinction.

E. Other natural or manmade factors affecting its continued existence.

Cattle trailing could impact some individuals of plants, particularly along the canal, but this is currently a minor impact and cattle do not appear to graze on the milkvetch. Pollinators can likely fly across the Towaoc Canal so genetic interchange is still possible but there may be some limitation of seed dispersal east and west of the Canal with an unknown impact to the milkvetch. If insecticides or herbicides are applied to future agricultural areas adjacent to Sleeping Ute milkvetch colonies, pesticide drift could occur and impact the milkvetch or its pollinators. Though no research has been conducted, the current population level could be approaching genetically minimum viable population thresholds and may be a factor in potential extinction.

FOR RECYCLED PETITIONS:

- a. Is listing still warranted? ____
- b. To date, has publication of a proposal to list been precluded by other higher priority listing actions? ____
- c. Is a proposal to list the species as threatened or endangered in preparation? ____
- d. If the answer to c. above is no, provide an explanation of why the action is still precluded.

LAND OWNERSHIP: This species occurs solely on Ute Mountain Ute Indian Tribal lands. The Towaoc Canal was constructed by the Bureau of Reclamation, which has jurisdiction over the canal itself and associated rights-of-way. The canal is approximately 10 feet wide where it bisects the milkvetch colonies and the road right-of-way is approximately 20 feet wide including shoulders. The Dolores Water Conservancy District and the Ute Mountain Ute Tribe share operation and maintenance duties.

PRELISTING:

No conservation agreements have been undertaken for this species, though a conservation agreement is proposed to be entered into by the Service with the Ute Mountain Ute Tribe and other involved parties.

There was no monitoring, research, further work on a conservation agreement, or other

prelisting conservation activities conducted for the Sleeping Ute milkvetch in 2001. Consequently, there is no information to suggest or refute removing the species from the candidate list nor changing the listing priority. Therefore, the Sleeping Ute milkvetch should be retained at a listing priority of eight.

REFERENCES:

Anderson, J.L., and J.M. Porter. 1994. *Astragalus tortipes* (Fabaceae), a new species from desert badlands in southwestern Colorado and its phylogenetic relationships with *Astragalus*. Systematic Botany 19(1):116-125.

Colyer, M. 2000. Status report of Sleeping Ute milkvetch *Astragalus tortipes*. National Park Service Report to the Ute Mountain Ute Tribe. 6 pages + photo and map reproductions.

LISTING PRIORITY

THREAT

MAGNITUDE	IMMEDIACY	TAXONOMY	PRIORITY	
High	Imminent	Monotypic genus	1	
		Species	2	
		Subspecies/population	3	
	Non-imminent	Non-imminent	Monotypic genus	4
			Species	5
			Subspecies/population	6
Moderate to Low	Imminent	Monotypic genus	7	
		Species	8*	
		Subspecies/population	9	
	Non-imminent	Non-imminent	Monotypic genus	10
			Species	11
			Subspecies/population	12

Rationale for listing priority number:

Magnitude:

Imminence:

APPROVAL/CONCURRENCE: Lead Regions must obtain written concurrence from all other Regions within the range of the species before recommending changes to the candidate list, including listing priority changes; the Regional Director must approve all such recommendations. The Director must concur on all additions of species to the candidate list, removal of candidates, and listing priority changes.

Approve: Ralph O. Morgenweck April 1, 2003
Regional Director, Fish and Wildlife Service Date

Concur: _____
Director, Fish and Wildlife Service Date

Do not concur: _____
Director, Fish and Wildlife Service Date

Director=s Remarks:

-

-

Date of annual review:

Conducted by: