

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

Plant Abstract

Element Code: PDAST0T4U0
Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Aster potosinus*
COMMON NAME: Lemmon's Aster
SYNONYMS: *Aster lemmonii*
FAMILY: Asteraceae

AUTHOR, PLACE OF PUBLICATION: Gray, A. 1884. Syn. Flora N. Amer. 1(2):199.

TYPE LOCALITY: Santa Rita Mountains (Pringle); and Huachuca Mountains (Lemmon).

TYPE SPECIMEN:

TAXONOMIC UNIQUENESS: Closely related to *Aster subulatus* var. *ligulatus* (= *A. exilis*) (Fletcher 1978). Arizona populations were considered a distinct species until Sundberg (1986) combined with *A. potosinus*.

DESCRIPTION: **Perennial** herb with an erect stem 30.0 cm (12.0 in.) or more tall, plant glabrous (without hairs). Leaves **very narrowly lance-shaped**, 4.0-8.0 cm (1.6-3.2 in.) long, without petioles, leaf bases clasping stem. Flower heads few to several, borne at tip of stem, 7.0-9.0 mm (0.28-0.36 in.) tall. Phyllaries all alike, 4.0-5.0 mm long and 0.5-1 mm wide, stiff, with short slender hairs on scarious margins. Ray (outer) flowers white, 5-8 mm long and about 1.0 mm (0.04 in.) wide. Disk flowers white, tubular, ca. 5 mm long. Grows in clones.

AIDS TO IDENTIFICATION: Riparian habitat; perennial, clonal growth form; solitary flowers; slender grass-like leaves.

ILLUSTRATIONS: USFWS Line drawing

TOTAL RANGE: Southeastern Arizona; central Mexico south to San Luis Potosi, Chihuahua and Sonora, Mexico.

RANGE WITHIN ARIZONA: Cochise County: Chiricahua (historic) and Huachuca Mountains. Santa Cruz County: Santa Rita Mountains (historic). Only extant population is on Fort Huachuca.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Herbaceous Perennial

PHENOLOGY: June to September

BIOLOGY: Unknown

HABITAT: High quality montane riparian habitat with perennial water. Along the edges of streams in shallow in shallow water and in wet soil at waters edge. Its creeping root-stalks penetrate into crevices

among the rocks. Plants appear to need some accumulated soil because they do not occur on gravels.

ELEVATION: 4,880 - 6,000 feet (1488-1830 m).

EXPOSURE: Shady canyon bottoms.

SUBSTRATE: Wet soil, mud.

PLANT COMMUNITY: Relatively shady canyon bottoms with an overstory of deciduous trees forming a more-or-less continuous corridor along the stream. Dominant trees include sycamore, alder, Gooding willow and big-tooth maple.

POPULATION TRENDS: Several historical populations have apparently disappeared from the Chiricahua and Santa Rita mountains based on surveys by Sundberg. It has not been collected at any locality in Arizona outside of Garden Canyon in the Huachuca Mountains since 1989.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None

STATE STATUS: None

OTHER STATUS: Not Forest Service Sensitive (USDA, FS Region 3 1999)
[Forest Service Sensitive, USDA, FS Region 3 1990]

MANAGEMENT FACTORS: Historic disappearance of several populations has been documented. Occupies vulnerable riparian habitat. Damage to riparian habitat/water supply must be prevented. Threatened by road maintenance and recreation.

CONSERVATION MEASURES TAKEN:

SUGGESTED PROJECTS: Re-survey historic habitat; monitor known population on Ft. Huachuca. Train road maintenance crews at Fort Huachuca. Close road above rock-climbing training area. Obtain status information from Mexico.

LAND MANAGEMENT/OWNERSHIP: DOD - Fort Huachuca Military Reservation; USFS - Coronado National Forest.

SOURCES OF FURTHER INFORMATION

LITERATURE CITATIONS:

- Fletcher, R. 1978. Report on *Aster lemmoni* for the Forest Service, Region 3, Albuquerque, New Mexico.
- Gray, A. 1884. Flora of North Amer. (Syntopical) I (2), Smithsonian Institution.
- Kearney, T.H. and R.H. Peebles. 1960. Arizona Flora (with supplement). University of California Press, Berkeley.
- Knight, P.J. 1977. A field study of habitat distribution and population status of proposed threatened and endangered plant species of the southern portion of the Coronado National Forest, Arizona. USFS report. Albuquerque, New Mexico.
- Phillips, A.M., B.G. Phillips, and N. Brian. 1982. Status report on *Aster lemmoni* (Gray) for USFWS, Albuquerque, New Mexico. 12 pp.
- Sundberg, S. 1986. Systematics of *Aster* subgenus *Oxytrepolium* and historically allied species. PhD Dissertation, Univ. Texas, Austin.
- USDA, Forest Service Region 3. 1990. Regional Forester's Sensitive Species List.

USDA, Forest Service Region 3. 1999. Regional Forester's Sensitive Species List.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

Reggie Fletcher - Regional Ecologist, USFS Region 3, Albuquerque, New Mexico.

Art Phillips - Private Consultant, Flagstaff, Arizona.

S. Sundberg - Department Botany, University Texas, Austin.

Peter L. Warren - Tucson, Arizona.

Nancy Stallcup - Sierra Vista, Arizona.

ADDITIONAL INFORMATION:

Fletcher: differs from *A. subulatus* var. *ligulatus* (= *A. exilis*) in that it is perennial, but *A. subulatus* is perennial in Sycamore Canyon; some questions if they are different species.

T.R. VanDevender: Plants appearing to be *A. exilis* and perennial are common in Arivaca Creek and Cienega and elsewhere in Santa Cruz County (?).

Phillips 1982: Recommended for federal Threatened status (as *Aster lemmoni*).

Nancy Stallcup reported that about 12 of the 91 known plants at Fort Huachuca had been destroyed by the Army.

Revised: 1991-02-25 (PLW)
1991-12-04 (SR)
1995-06-20 (DBI)

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Arizona Game and Fish Department. 1995. *Aster potosinus*. Unpublished abstract compiled and edited by the Heritage Data Management System, Arizona Game and Fish Department, Phoenix, AZ. 3 pp.