

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

Plant Abstract

Element Code: PDASTE8160

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Symphyotrichum potosinum*
COMMON NAME: Santa Rita Mountain Aster, Lemmon's Aster
SYNONYMS: *Aster lemmonii*, *Aster potosinus*
FAMILY: Asteraceae

AUTHOR, PLACE OF PUBLICATION: A. Gray, Proc. Amer. Acad. Arts Sci. 15(1): 32. 1879[1880].

TYPE LOCALITY: Mexico: San Luis Potosí: Along brooks in the mountains of San Luis Potosí, 6000-8000 ft.

TYPE SPECIMEN: HT: GH-3725. C.C. Parry & E. Palmer 384, 1878. IT: NY, US. SynT: GH.

TAXONOMIC UNIQUENESS: *Symphyotrichum potosinum* is one of ca, 90 species in the genus, about 80 of which occur in North America. *S. potosinum* is one of 11 species of *Symphyotrichum* that occur in Arizona. *S. potosinum* is one of 3 species in the subgenus *Astropolium*, along with *S. tenuifolium* and *S. subulatum* (Sundberg, 2004).

Aster lemmonii lumped into *S. potpsinum* by Kartesz (1999).

DESCRIPTION: Perennials, 15-35 cm (5.9-13.8 in), colonial or caespitose; rhizomatous. Stems 1-3+, ascending to erect (sometimes purple or purplish brown), glabrous or glabrate, sparsely hairy in leaf axils [villous to sericeous]. Leaves thin, apices callous-pointed, faces glabrous or glabrate; basal usually withering by flowering, long-petiolate, petioles sheathing, sparsely ciliate, blades lanceolate, 5-7 mm (0.2-0.3 in). Heads in paniculiform arrays, branches patent. Peduncles 1-4 cm (0.4-1.6 in), ascending, glabrate, bracts subulate to lanceolate, foliaceous. Involucres cylindrical to hemispheric. Phyllaries in 2-3 series, subulate to lanceolate, bases indurate, margins hyaline, entire to erose, often ciliate, green zones linear-lanceolate (outer) or rhombic (inner), apices acute, faces glabrous. Ray florets 14-27; corollas white, laminae. Disc florets 18-35; corollas yellow, 3.5-5 mm (0.1-0.2 in), tubes shorter than funnelform throats. Cypselae light brown to gray, narrowly obovoid to fusiform, sometimes ± compressed, 2-3 mm (0.1 in), 5-nerved, faces glabrate to sparsely strigillose; pappi white to cream, 3.5-5.5 mm (0.1-0.2 in).

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

ILLUSTRATIONS: Line drawing (USFWS)
Specimens (ASU Vascular Plant Herbarium)

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

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

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Herbaceous perennial.

PHENOLOGY: Flowers from June to September.

BIOLOGY: Unknown.

HABITAT: High quality montane riparian habitat with perennial water. Along the edges of streams in shallow water and in wet soil at waters edge. Its creeping rootstalks penetrate into crevices among the rocks. Plants appear to need some accumulated soil because they do not occur on gravel.

ELEVATION: 4,880 - 6,200 feet (1488-1890 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 *Platanus* (sycamore), *Alnus* (alder), *Salix gooddingii* (Goodding willow) and *Acer grandidentatum* (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 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. Species occupies vulnerable riparian habitat. Damage to riparian habitat and water supply must be prevented. Threatened by road maintenance and recreation.

CONSERVATION MEASURES TAKEN:

SUGGESTED PROJECTS: Search for additional occurrences and recent confirmation for historic sites; 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**REFERENCES:**

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- 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 the Army had destroyed about 12 of the 91 known plants at Fort Huachuca.

Revised:	1991-02-25 (PLW)
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