

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

Plant Abstract

Element Code: PDSTE06010
Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Hermannia pauciflora* S. Wats.
COMMON NAME: Sparseleaf Hermannia, Santa Catalina Burstwort, Hierba del Soldado
SYNONYMS:
FAMILY: Malvaceae

AUTHOR, PLACE OF PUBLICATION: Watson, Sereno. 1882. Proc. Amer. Acad. Arts 17: 368.

TYPE LOCALITY: Santa Catalina Mountains, Pima County, Arizona.

TYPE SPECIMEN: GH: 00062843. C.G. Pringle (#344). November 4, 1881.

TAXONOMIC UNIQUENESS: The genus *Hermannia* contains approximately 300 species, mainly in Africa. *Hermannia pauciflora* is the only species recognized by Lehr (1978) as occurring in Arizona.

DESCRIPTION: Herbaceous perennial with a woody base and root with reddish-brown ascending stems up to 30 cm long; leaves deltoid or oblong-ovate with toothed margins; flowers yellow (or orange), 6-8 mm long, with 5 styles, hanging down on small stems from axils; calyx tube about half the length of the corolla, 5-cleft, the lobes longer than the tube; fruit ovoid with five ridges bearing stout teeth 1-2 mm long with 3-5 stellately arranged, horizontal or slightly recurved stout hairs.

AIDS TO IDENTIFICATION: Five distinct styles on the ovary in contrast to *Waltheria* and *Ayenia*, which have only one. Yellow flowers are solitary, pendulous.

ILLUSTRATIONS:

Line Drawing (Rickett 1970: 342).

Photos: <http://swbiodiversity.org/seinet/taxa/index.php?taxon=3625>.

TOTAL RANGE: Southern Arizona (Pima and Cochise Counties) and Sonora, Mexico (Guaymas, San Carlos, Nacapule Canyon, Hermosillo and Puerto Libertad areas).

RANGE WITHIN ARIZONA: Santa Catalina, Tucson, and Waterman mountains, the San Pedro River floodplain in the Charleston Hills, and Organ Pipe Cactus NM.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Herbaceous perennial.

PHENOLOGY: Flowering and fruiting year-round (FNA).

BIOLOGY: Stems die back to the root-crown at the end of the growing season but persist through the winter and beyond. Plants are usually widely-scattered and appear to be rather short-lived, five years or less.

HABITAT: Desert scrub or grasslands, hillsides, rocky slopes, rock crevices, rocky soil, soil pockets, canyon bottoms, washes, rock outcrops (FNA).

ELEVATION: 2,300 – 4,265 feet (700 - 1300 meters).

EXPOSURE: Not specified.

SUBSTRATE: Limestone, granitic, or talus soil.

PLANT COMMUNITY: Upland Sonoran desert scrub, in palo verde and saguaro cactus association, also in floodplains and riparian settings.

POPULATION TRENDS: Collections of this species have been sporadic since its original collection in 1881. Subsequent collections were made in 1905, 1913, 1946, 1952, 1966, 1980, 1983, 1984, 1989, 1991 and 1992. Bertelsen (2000) first observed the species in Finger Rock Canyon in 1984. He did not see it again until 1994, but has seen it every year since (until at least 2000). This suggests the species can exhibit a somewhat ephemeral presence. Additional Arizona collections were made in 2002, 2011, 2017 and 2019. Between 1995 and 2015 the majority of collections were made in Sonora, Mexico. There is no information available on actual population numbers. Based on the number of element occurrences in Arizona (n=13), The Arizona HDMS program recently re-ranked *Hermannia pauciflora* from Critically Imperiled to Imperiled.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS:	None
STATE STATUS:	None
OTHER STATUS:	NOT FS Sensitive (USDA, FS Region 3, 2007) [Forest Service Sensitive, USDA, FS Region 3 1999]

MANAGEMENT FACTORS: Threats are unknown (NatureServe 2019).

PROTECTIVE MEASURES TAKEN: Very little is known about this species, so there are no known protective management measures recommended. *H. pauciflora* was listed as Sensitive by the USDA Forest Service in 1999, but was removed in the 2007 listing update. Populations found in Saguaro NP and Organ Pipe Cactus NM, as well as the San Pedro Riparian NCA might receive some additional protection from these entities.

SUGGESTED PROJECTS: Little is known about *Hermannia pauciflora*. Studies on its life history or threat factors would be very useful.

LAND MANAGEMENT/OWNERSHIP: NPS - Saguaro National Park; USFS - Coronado National Forest; Pima County - Tucson Mountain County Park; BLM - San Pedro Riparian NCA; Private.

SOURCES OF FURTHER INFORMATION

LITERATURE CITATIONS:

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MAJOR KNOWLEDGEABLE INDIVIDUALS:

- Richard Felger – University of Arizona Herbarium, Tucson
Dave Bertelsen – University of Arizona Herbarium, Tucson

ADDITIONAL INFORMATION:

Revised: 1999-11-16 (JCP)
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