

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

**Plant Abstract**

**Element Code:**

PDCPP03080

**Data Sensitivity:**

No

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Cleome multicaulis*  
**COMMON NAME:** Playa Spider Plant, Many Stemmed Spider-Flower, Slender Spiderflower  
**SYNONYMS:** *Cleome sonorae* A. Gray; *Peritoma sonorae* (A. Gray) Rydb.  
**FAMILY:** Capparidaceae

**AUTHOR, PLACE OF PUBLICATION:** Sessé and Mociño ex. DC, Prodr. 1:240. 1824.

**TYPE LOCALITY:** West of the Chiricahua Mountains.

**TYPE SPECIMEN:** Wright. 1853.

**TAXONOMIC UNIQUENESS:** Kearney and Peebles (1960) list four species of *Cleome* found in Arizona.

**DESCRIPTION:** Slender erect annual herb, with unbranched or sparingly-branched stems, 20.0-70.0 cm (8.0-28.0 in.) tall, appearing delicate, without pubescence. Leaves are alternate, short-petiole to sub-sessile, divided into three narrow leaflets, 1.0-3.0 cm (0.08-0.16 in.) long and 1.0-3.0 mm (0.04-0.12 in.) wide. Flowers openly scattered in axillary racemes (spike-like, borne in angle of leaf and stem) with pink-purple petals 4.0-7.0 mm (0.16-0.28 in.) long. Petals number four, and are clustered towards one side of the flower. Six stamens are equal in length to the petals. Fruits are narrow, multi-seeded capsules up to 2.0 cm long with a stalk-like base (gynophore) and droop at maturity. Capsules are obovoid (widest at the tip) to linear, 9.0-18.0 mm (0.36-0.72 in.) long, 2.0-4.0 mm (0.08-0.16 in.) thick.

**AIDS TO IDENTIFICATION:** Other species in the genus have longer petals (>6 mm), distinct petioles, more than three leaflets, or longer capsules (>2 cm). *Cleome serrulata* is more robust, with broader leaflets, larger fruit, and entire (undivided) flower bracts, and has stamens that are much longer than the petals (WNDD, accessed 2001). *C. lutea* has yellow flowers (WNDD, accessed 2001).

**ILLUSTRATIONS:** Color photo (CSU, accessed 2001)  
Color photo (W. Fertig in WNDD, accessed 2001)  
B&W drawing (W. Fertig in USGS, NPWRC, accessed 2001)

**TOTAL RANGE:** South-central Colorado (San Luis Valley), southwestern New Mexico, southern Wyoming, and adjacent Arizona to central Mexico.

**RANGE WITHIN ARIZONA:** Known from two historical locations in Arizona: Wilcox Playa and San Bernardino Ranch, Cochise County. Recent efforts to relocate it at San Bernardino NWR have been unsuccessful (Warren 1999 draft). Arizona populations have not been confirmed since the 1940's (NatureServe, accessed 2001).

**SPECIES BIOLOGY AND POPULATION TRENDS**

**GROWTH FORM:** Herbaceous annual

**PHENOLOGY:** June-August

**BIOLOGY:**

**HABITAT:** Wet, saline or alkaline soils; often in and around alkali sinks, alkaline meadows, or old lake beds. Inhabits saline playas and springs (Warren 1999 draft).

**ELEVATION:** 3,600 - 4,200 ft. (1098 - 1281 m).

**EXPOSURE:**

**SUBSTRATE:** Alkaline soils.

**PLANT COMMUNITY:** Creosotebush desertscrub, desert-grassland. In Wyoming, populations are most abundant on damp (but not flooded) flats with approximately 90% cover of *Spartina gracilis*, *Distichlis stricta*, *Juncus balticus*, *Puccinellia nuttalliana*, *Scirpus nevadensis*, and *Triglochin maritimum* bordering playa lakes (WNDD, accessed 2001).

**POPULATION TRENDS:** Not well known. Population size may fluctuate annually, depending on moisture conditions and seed bank size (WNDD, accessed 2001). Draining of wetlands throughout the southwest is thought to have drastically decreased the amount of available habitats for this species (CSU, Accessed 2001).

**SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** None (USDI, FWS 1996)  
 [Category 2 (USDI, FWS 1993)]  
 [Category 2 (USDI, FWS 1990)]  
 [Category 2 (USDI, FWS 1985)]  
 [3C (USDI, FWS 1983)]  
 [Category 2 (USDI, FWS 1980)]  
 [PTN-T (USDI, FWS 1975)]

**STATE STATUS:** Salvage Restricted (ADA 1993)

**OTHER STATUS:**

**MANAGEMENT FACTORS:** Populations thrive in the saturated soils created by waterfowl management regimes. Draining of wetlands is thought to decrease the amount of available habitat. (CSU, Accessed 2001).

**PROTECTIVE MEASURES TAKEN:**

**SUGGESTED PROJECTS:** Survey Wilcox Playa.

**LAND MANAGEMENT/OWNERSHIP:** FWS - San Bernardino National Wildlife Refuge; Private; and possibly State.

**SOURCES OF FURTHER INFORMATION****LITERATURE CITATIONS:**

- Arizona Department of Agriculture. 1993. Appendix A. Protected group of plants - covered list of protected native plants by categories. p. 8.
- Colorado State University (CSU). Accessed 2001. Plant Briefs: *Cleome multicaulis* Sesse & Mocino ex DC. <http://harrington.biology.colostate.edu/herbarium/briefs.htm>.
- Correll, D.S. and M.C. Johnston. 1970. *Cleome multicaulis*. Manual of the vascular plants of Texas. Texas Research Foundation. Renner, Texas. p.710.

- Iltis, H.H. 1958. *Cleome multicaulis*. Studies in the Capparidaceae-V. Capparidaceae of New Mexico. The Southwestern Naturalist 3:142.
- Kearney, T.H. and R.H. Peebles. 1960. Arizona flora (with supplement). University of California Press, Berkeley. p.356.
- Martin, W.C. and C.R. Hutchins. 1980. *Cleome sonorae*. A flora of New Mexico I:850.
- NatureServe Explorer: An online encyclopedia of life [web application]. 2001. Version 1.6. Arlington, Virginia, USA: NatureServe. Available: <http://www.natureserve.org/explorer>. (Accessed: December 10, 2001).
- Rutman, S. 1994. Bureau of Land Management Safford District, Rare Plant Workshop. November 14-16. Tucson, Arizona.
- Shreve, F. and I.L. Wiggins. 1964. *Cleome sonorae*. Vegetation and flora of the Sonoran Desert. I:569.
- USDA, Forest Service Region 3. 1990. Regional Forester's Sensitive Species List.
- USDI, Fish and Wildlife Service. 1975. Threatened or Endangered Fauna or Flora. Federal Register 40(127):27829.
- USDI, Fish and Wildlife Service. 1980. Endangered and Threatened Wildlife and Plants; Review of Plant Taxa for Listing as Endangered or Threatened Species. Federal Register 45(242):82498.
- USDI, Fish and Wildlife Service. 1983. Endangered and Threatened Wildlife and Plants; Supplement to Review of Plant Taxa for Listing; Proposed Rule. Federal Register 48(229):53663.
- USDI, Fish and Wildlife Service. 1985. Endangered and Threatened Wildlife and Plants; Review of Plant Taxa for Listing as Endangered or Threatened Species. Notice of Review. Federal Register 50(188):00013.
- USDI, Fish and Wildlife Service. 1990. Endangered and Threatened Wildlife and Plants; Review of Plant Taxa for Listing as Endangered or Threatened Species; Notice of Review. Federal Register 55(35):6196.
- USDI, Fish and Wildlife Service. 1993. Plant Taxa for Listing as Endangered or Threatened Species; Notice of Review. Federal Register 58(188):51158.
- USDI, Fish and Wildlife Service. 1996. Endangered and Threatened Wildlife and Plants: Review of Plant and Animal Taxa that are Candidates for Listing as Endangered or Threatened Species; Notice of Review. Proposed Rule. Federal Register 61(40):7596-7613.
- USGS, Northern Prairie Wildlife Research Center. accessed 2001. Wyoming Rare Plant Field Guide: Many-Stemmed Spider-Flower, *Cleome multicaulis*.  
<http://www.npwr.usgs.gov/resource/distr/others/wyplant/spec/cleomult.htm>.
- Warren, P. 1999 draft. *Cleome multicaulis* Sessé & Moc. (Playa Spider-Plant) abstract. Arizona Rare Plant Book. Wyoming Natural Diversity Database (WNDD). accessed 2001. State Species Abstract: *Cleome multicaulis* (Many-Stemmed Spider-Flower), Capparaceae.  
[http://uwadmnweb.uwyo.edu/wyndd/pdf\\_files/plant\\_summaries/c/cleome%20multicaulis.pdf](http://uwadmnweb.uwyo.edu/wyndd/pdf_files/plant_summaries/c/cleome%20multicaulis.pdf).

**MAJOR KNOWLEDGEABLE INDIVIDUALS:**

Peter Warren - Tucson, Arizona.

**ADDITIONAL INFORMATION:**

Reports by W.A. Weber that the species was introduced from Mexico into the southwestern U.S. several hundred years ago have never been confirmed (Dixon 1994 pers. comm.), and *C. multicaulis* is considered native throughout its historic and current range (NatureServe, accessed 2001).

**Revised:** (AZNHP)  
1994-10-10 (PLW)  
2001-12-11 (SMS)

To the user of this abstract: you may use the entire abstract or any part of it. We do request, however, that if you make use of this abstract in plans, reports, publications, etc. that you credit the Arizona Game and Fish Department. Please use the following citation:

Arizona Game and Fish Department. 2001. *Cleome multicaulis*. Unpublished abstract compiled and edited by the Heritage Data Management System, Arizona Game and Fish Department, Phoenix, AZ. 3 pp.