

WRIGHT FISHHOOK CACTUS

Sclerocactus wrightiae Benson

Plant Symbol = SCWR

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Wright fishhook cactus (*Sclerocactus wrightiae*). Photo by D. Jolley

Alternate Names

Ferocactus wrightiae (L. D. Benson) N. P. Taylor

Pediocactus wrightiae (L. D. Benson) Arp

Uses

There are no known human or wildlife uses for Winkler's pincushion cactus. Plants are eagerly sought by collectors for horticultural purposes leading to the species' decline (USDI-FWS, 1979).

Status

Wright fishhook cactus was listed as an endangered species by the USDI Fish and Wildlife Service in 1979 based on its limited population size and distribution as well as known and potential threats from collection, mineral exploration, and off road vehicle (ORV) use (USDI-FWS, 1979). In 2005 the USDI-FWS affirmed this listing, noting there is not substantial information warranting the delisting of

Wright fishhook cactus (USDI-FWS, 2005). Field surveys indicate the species is slowly declining within its known range.

Consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g., threatened or endangered species, state noxious status, and wetland indicator values).

Description

General: Cactus family (Cactaceae). Wright fishhook cactus is a hemispheric or short-cylindrical cactus reaching 6 to 12 cm (2.4 to 4.8 in) tall and 4 to 8 cm (1.6 to 3.1 in) in diameter. Each plant has 8 to 13 ribs with tubercles approximately 12 mm (0.51 in) long by 9 mm (0.35 in) across and 6 to 9 mm (0.24 to 0.35 in) high. There are 1 to 4 central spines, typically 10 to 20 mm (0.39 to 0.79 in) long with the uppermost spines reaching 25 mm (0.98 in) long; the lower central spine is often hooked on at least the upper tubercles. Each tubercle has 8 to 11 white, spreading, radial spines, 6 to 12 mm (0.24 to 0.47 in) long. The flowers are 2 to 3.5 cm (0.8 to 1.4 in) long with green to brownish tinged sepaloids and white, pink or yellow petaloids. The fruit is an elliptical 9 to 12 mm (0.35 to 0.51 in) long berry with 3 mm (0.12 in) long, black seeds (Welsh et al., 2003).

Distribution:

Wright fishhook cactus occurs in two general areas in central Wayne County, Utah and south western Emery County, Utah. Individual populations are small with few scattered plants. The most recent surveys estimate the total number of individuals at 4,500 to 21,000 (USDI-FWS, 2005).

For current distribution, consult the Plant Profile page for this species on the PLANTS Web site.

Habitat:

Wright fishhook cactus grows in a range of arid habitats including clay flats in mat saltbush (*Atriplex corrugata*) communities, sandy sites with galletta grass (*Hilaria jamesii*) and purple three-awn (*Aristida purpurea*), and pinyon-juniper woodlands (*Pinus edulis* and *Juniperus osteosperma*) with a blue grama (*Bouteloua gracilis*) understory (USDI-FWS, 1985).

Adaptation

Unlike many of the other sensitive species of the region, Wright fishhook cactus is not an edaphic specialist, and can be found in a wide variety of soil

types and plant communities from fine clay to sand (USDI-FWS, 1985; Welsh et al., 2003). Plants are rare where cryptogamic crusts are damaged or undeveloped (USDI-FWS, 1985). The majority of the known range of Wright fishhook cactus falls in a 15 to 23 cm (6 to 9 in) mean annual precipitation zone (WRCC, 2011).

Management

Wright fishhook cactus is threatened by habitat degradation and plant damage resulting from cattle trampling, ORV use, hiking, mountain biking and other human recreational activities. This species is also targeted by cactus collectors, and illegal collection continues to significantly affect plant reproduction and recruitment (USDI-FWS, 2005).

Pests and Potential Problems

This species is susceptible to infestations of cactus borer beetles (*Moneilema semipunctatum*) (USDI-FWS, 2005). Kass (2001) observed 23 percent of all mortality during a seven year period resulted from cactus borer beetle damage. Blister beetles (*Epicauta* sp.), Ord kangaroo rats (*Dipodomys ordii*), and white-tailed antelope ground squirrels (*Ammospermophilus leucurus*) have also been identified as mortality sources (Kass, 2001).

Environmental Concerns

There are no known environmental concerns regarding Wright fishhook cactus.

Seed and Plant Production

Wright fishhook cacti reproduce primarily via seed; however, budding has also been observed. Plants flower in spring with fruit maturing in June. Specific pollinators are unknown; though ants and beetles have been observed foraging in flowers and may contribute to pollen transfer. Maturing fruits dehisce along a circular horizontal line near or below the middle of the fruit allowing seed dispersal (USDI-FWS, 1985).

References

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