

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

**Plant Abstract**

**Element Code:** PDCAC0A0E2

**Data Sensitivity:** Yes

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Mammillaria wrightii* var. *wrightii* Engelm.

**COMMON NAME:** Wright nipple cactus, Wright's nipple cactus, Wright's mammillaria, Wright fishhook cactus

**SYNONYMS:**

**FAMILY:** Cactaceae

**AUTHOR, PLACE OF PUBLICATION:** Engelm., Proc. Amer. Acad. Arts and Sci. 3: 262. 1856.

**TYPE LOCALITY:** USA, New Mexico, Pecos River.

**TYPE SPECIMEN:** LT: MO-2016409, C. Wright s.n., August 1851.

**TAXONOMIC UNIQUENESS:** The species *wrightii* is 1 of 13 in the genus *Mammillaria*, while the var. *wrightii* is one of 2 in *M. wrightii*, with both occurring in Arizona. The other variety is *wilcoxii*.

**DESCRIPTION:** Solitary perennial succulent plant. The upper portion of the primary root somewhat thickened and succulent proximally, otherwise fibrous. Stems flat-topped or spheric, green, 4-8 x 4-8 cm (1.6-3.2 x 1.6-3.2 in), flaccid; the tubercles 8-24 mm; axils appearing naked; cortex and pith mucilaginous; latex absent. Spines are dense, partly obscuring the stem, 9-31 per areole, white, usually tipped brown. The central spines are dark reddish-brown, 1-4 per areole, porrect or strongly projecting, 1 to all hooked, equal, 12-14 mm. Radial spines straight, 8-15 per areole, parallel to the stem, in 1 series, glabrous, at first tan in color, later becoming gray; lateral spines bristlelike, 7-11 mm, stiff, longest and thickest of the spines; adaxial spines often darker. The flowers are 2.5-3.5 x 2.5-7.5 cm in diameter (1-1.4 x 1-3 in); outer tepal margins conspicuously fringed; inner tepals rose-pink or magenta [white], margins often paler; stigma lobes yellow or pale green (rarely reddish), 8-10, flat, 2-5 mm long. Anthers are yellow, narrowly oblong, 1.3 mm long; style reddish-purple to green, 12-22 mm long. The fruit is red (FNA 1993+ reports green or dull purple), spheric to ovoid or obovoid, 13-20 mm long x 12.5-26 mm in diameter, juicy throughout; floral remnant persistent. Seeds black, 1.3-1.5 mm, pitted (pits more prominent than the surface between them); pits bowl-shaped; testa hard. (Benson, 1981, 1982; FNA 1993+).

**AIDS TO IDENTIFICATION:** Juvenile plants of the species *Mammillaria wrightii* may be mistaken for *M. viridiflora*, since the vegetative characters are similar. At first there is only one central spine per areole on the young stem, and the areole is nearly circular. Changes occur

gradually in the new areoles as the stem grows. (Benson, 1981). In addition, *M. viridiflora* usually occupies deeper soils. Differences in the 2 varieties include: 2.3 central spines per areole in var. *wrightii*, while var. *wilcoxii* averages 1.6. Radial spines in var. *wrightii* averages 13, versus and average of 20 in var. *wilcoxii*. Flowers and fruit are larger in var. *wrightii* than *wilcoxii*. Variety *wrightii* is found in higher elevations than var. *wilcoxii* (5,000-8,000 feet versus 3,500-5,000 feet). (Benson, 1982).

**ILLUSTRATIONS:** B&W drawing (Benson, 1982: fig. 940)  
Color and B&W photos (Benson, 1982: fig. 939, 941)  
B&W drawing of spine clusters of species (Benson, 1981: fig. 4.13)  
Color and B&W photos (Zimmerman and Zimmerman, 1977: fig. 5, 8, 11)

**TOTAL RANGE:** Arizona (including the Navajo Nation), New Mexico, and southwest Texas near El Paso. Possibly occurs in northern Chihuahua, Mexico.

**RANGE WITHIN ARIZONA:** Quarino Wash, Apache County.

### **SPECIES BIOLOGY AND POPULATION TRENDS**

**GROWTH FORM:** Perennial succulent shrub/subshrub.

**PHENOLOGY:** Flowering occurs in the summer (after summer rains begin); fruits in the fall.

**BIOLOGY:** As with many other cacti, reproduction begins while the plant is still juvenile in vegetative characters.

**HABITAT:** Inhabits semidesert grasslands, plains grasslands, pinyon-juniper woodlands, gentle slopes, mesas, and valleys, usually on alluvial or igneous substrates.

**ELEVATION:** 5,000 – 8,000 ft (1500-2500 m). FNA (1993+) reports elevation between 1200-2100(-3000) m [3,935-6,885(-9,836) ft].

**EXPOSURE:** Light shade.

**SUBSTRATE:** Clay soils.

**PLANT COMMUNITY:** Great Plains Grassland; Desert Grassland; Southwestern Oak Woodland; Southern Juniper-Pinyon Woodland.

**POPULATION HISTORY AND TRENDS:** Unknown.

**SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** None  
**STATE STATUS:** Salvage Restricted (ARS, ANPL 1999)  
**OTHER STATUS:** None

**MANAGEMENT FACTORS:** As with other cacti, this plant is subject to collection for commercial purposes.

**PROTECTIVE MEASURES TAKEN:**

**SUGGESTED PROJECTS:**

**LAND MANAGEMENT/OWNERSHIP:** BIA – Navajo Nation.

**SOURCES OF FURTHER INFORMATION****REFERENCES:**

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**MAJOR KNOWLEDGEABLE INDIVIDUALS:****ADDITIONAL INFORMATION:**

The name *Mammillaria* come from the Latin for “nipple”, because the areolas (structures carrying the spines) are carried by nipple like structures instead of being organized in ribs like many other cacti. Another significant difference is that the flowers are not coming from the areola, but from the area at the juncture of 2 tubercles. (Faucon, 1998-2001 in <http://www.desert-tropicals.com>).

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