

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

Plant Abstract

Element Code: PDCAC08090

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Ferocactus emoryi*
COMMON NAME: Covill's barrel-cactus; Coville barrel; Emory's barrel-cactus; Emory barrel cactus; Bisnaga; Nail Keg barrel
SYNONYMS: *Ferocactus covillei*; *Echinocactus emoryi*; *Echinocactus covillei*
FAMILY: Cactaceae

AUTHOR, PLACE OF PUBLICATION: *Ferocactus emoryi* (Engelm.) Orcutt, Cactography 5. 1926. *Ferocactus covillei* Britton & Rose, Cact. 3: 132-133, f. 138, 139. 1922. *Echinocactus emoryi* Engelm., Not. Milit. Recon. 157. 1848.

TYPE LOCALITY: Mexico: Sonora: collected on hills and mesas near Altar, August 11, 1884, C.G. Pringle s.n.

TYPE SPECIMEN: IT: C.G. Pringle s.n., 11 Aug 1884, Mexico (F). Also NY 564069. LT: US 795801.

TAXONOMIC UNIQUENESS: One of 5 species in the genus *Ferocactus*, and 1 of 3 that occur in Arizona. According to the Arizona-Sonora Desert Museum (ASDM 2000), "The desert populations were originally described as *F. covillei*. The populations in the thornscrub of southern Sonora (the original *F. emoryi*) are massive barrel-shaped plants up to 9 feet (2.7 m) tall and almost 3 feet (0.9 m) in diameter, with shorter curved but not hooked yellow spines and yellow flowers. Between Hermosillo and Guaymas, Sonora, the 2 forms intergrade, which is why they were combined into a single species."

DESCRIPTION: Unbranched (except in case of injury to growing tip), stem barrel-shaped cactus, that is globular when young to a stout cylinder when older. Length 2-4 (8) ft long (0.6-1.2 (2.4) m), and 1-2 ft (12-24 in) in diameter. Ribs usually 20-30, not tuberculate; spines partly obscuring the stem. Central spine red, but developing a surface layer of ashy gray. Central spine numbers 1 per areole, standing at right angles to the stem, curving slightly through its whole length, commonly hooked or strongly curved at the apex; strongly cross-ribbed, 3 to 4 inches (7.6-10 cm) long. Radial spines of the same texture and color as the central, 7 to 9 per areole, spreading, straight, 2 to 3 inches long, somewhat flattened. Flower about 3 inches in diameter; petaloid perianth parts purplish-red, narrowly lanceolate, about 1.5 inches long. Fruit oblong and

yellow, with few (20-30) semicircular, scarious-margined scales, 1-1.75 inches long. Seed black, 2 mm in diameter, with a meshwork surface. (Benson 1981).

AIDS TO IDENTIFICATION: This species is probably the most distinctive of the Arizona barrel cacti. Large plants are tall and cylindrical. When the plant is young it is enclosed in a “cage” of bright red interlacing spines, which are recurved in such a manner that the cactus may be picked up without danger or injury. (Benson 1981).

ILLUSTRATIONS: B&W drawing (ASDM 2000).

Color photo (<http://walpow.com/succulents/ferocactus-emoryi.htm>)

Color photos of plant and parts (ASU Vascular Plant Herbarium Image Library, <http://ces.asu.edu/collections>)

TOTAL RANGE: South-central Arizona, southward into Sonora, Mexico.

RANGE WITHIN ARIZONA: Pima, Yuma, and Maricopa counties.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Perennial succulent shrub/subshrub.

PHENOLOGY: June to August (usually July to mid-August).

BIOLOGY: Eating the flesh or juice of this cactus causes nausea, diarrhea, and temporary paralysis. The pulp is used by the Seri as a pain-relieving poultice, evidence that there are some active chemicals in this plant. The flowers and fruit, however, are edible. (ASDM 2000).

HABITAT: Gravelly, rocky, or sandy soils of hills, washes, alluvial fans, or grassy flats in the desert at 1,500 to 3,000 feet elevation.

ELEVATION: 1,500 – 3,000 ft (458-915 m).

EXPOSURE:

SUBSTRATE: Gravelly, rocky and sandy soils.

PLANT COMMUNITY: Arizona Desert and upper Colorado Desert.

POPULATION HISTORY AND TRENDS:

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS:

STATE STATUS:

Salvage Restricted (ARS, ANPL 1999)

OTHER STATUS:

MANAGEMENT FACTORS:

Threatened by collection for commercial cultivation.

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS:

LAND MANAGEMENT/OWNERSHIP: Known: BIA – Tohono O’odham Nation; NPS – Organ Pipe Cactus National Monument. Possibly DOD and Private, among other.

SOURCES OF FURTHER INFORMATION

LITERATURE CITATIONS:

- Arizona-Sonora Desert Museum (ASDM). 2000. *Ferocactus emoryi* [*F. covillei*]. <http://www.desertmuseum.org/>. Accessed: 9/18/2002.
- Arizona Revised Statutes. 1999. Arizona Native Plant Law, Appendix A.
- Benson, L. 1981. The Cacti of Arizona. Third edition. The University of Arizona Press, Tucson, Arizona. Pp. 170-171.
- Benson, L. 1982. The Cacti of the United States and Canada. Stanford University Press, Stanford, California. Pp. 949-950.
- Integrated Taxonomic Information System (ITIS). ITIS report, *Ferocactus emoryi* (Engelm.) Orcutt. Retrieved 9/18/2002 from the Integrated Taxonomic Information System on-line database, <http://www.itis.usda.gov>.
- Kearney, T.H., R.H. Peebles, and collaborators. 1951. Arizona Flora. University of California Press, Berkeley, California. P. 573.
- Missouri Botanical Garden – TROPICOS, Nomenclatural Data Base. *Ferocactus emoryi* (Engelmann) Orcutt. <http://mobot.mobot.org/>. Accessed: 18 Sep 2002.
- USDA, NRCS. 2002. The PLANTS Database, Version 3.5 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION:

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