

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

Plant Abstract

Element Code: PDCAC0X0F0

Data Sensitivity: YES

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Escobaria tuberculosa* (Engelm.) Britt. & Rose

COMMON NAME: Cob corycactus, Incense Corycactus, whitecolumn foxtail cactus, white-column foxtail cactus

SYNONYMS: *Mammillaria tuberculosa* Engelm., *Cactus tuberculosa* Kuntze, *C. strobiliformis* Kuntze, *Coryphantha dasyacantha* var. *varicolor* (Tiegel) L. Benson, *C. strobiliformis* auct. non (Poselg.) Orcutt, *C. tuberculosa* Marshall, *Escobaria dasyacantha* var. *varicolor* (Tiegel) D.R. Hunt, *E. strobiliformis* auct. non (Poselg.) Scheer ex Bödecker, *E. tuberculosa* var. *varicolor* (Tiegel) Brack & Heil, *M. varicolor* (Tiegel) Weniger

FAMILY: Cactaceae

AUTHOR, PLACE OF PUBLICATION: *Escobaria tuberculosa* (Engelm.) Britton & Rose, Cact. 4: 54, fig. 51. 1923. *Mammillaria tuberculosa* Engelm., Proc. Amer. Acad. Arts and Sci. 3: 268. 1856.

TYPE LOCALITY: LT - Mexico: Chihuahua: Flounce Mountains, below El Paso, below San Elisario on the Río Grande.

TYPE SPECIMEN: LT: MO. Bigelow s.n., Jun 1852. The LT was designated by Benson, Cact. U.S. Canada 962 (1982), but specific sheet is not indicated.

TAXONOMIC UNIQUENESS: The species *tuberculosa* is 1 of 16 species in the genus *Escobaria*. This plant was formerly assigned to *Coryphantha strobiliformis*, but was re-assigned to *Escobaria tuberculosa* (formally *Mammillaria tuberculosa*). *Coryphantha strobiliformis* has been determined to be restricted to Mexico (under the name *C. chihuahuensis* (Britton & Rose) A. Berger). Flora of North America (Editorial Committee 1993+) assigns this plant as *Coryphantha tuberculosa*.

DESCRIPTION: Plants usually branched and small stemmed (to 50 branches), but sometimes unbranched and large stemmed. They are corncob-like or pinecone-like on below-ground portion, and on above-ground portion only on the oldest plants. Plants grow in clumps, stems ovoid to cylindrical, 4-18 cm (1.6-7.1 in) high, 2-6 cm (0.8-2.4 in) in diameter. Tubercles are more or less regularly arranged in spirals, (6-)8-11 x 3-6 mm, and firm; areolar glands are absent. Spines 21-41 per areole, ashy white, gray, or pale tan in color, with the tips of the largest spines reddish brown or reddish black, all straight. Radial spines numerous (15-41 per areole), 4-15 mm long, gray to white, sometimes as many as 30. Central spines several, stouter than radials, brown

to blackish or colored only at tips; outer are erect or ascending; inner are porrect or descending, longest spines 10-15 mm. The flowers are apical or nearly so, 20-20 x 20-45 mm in size (Benson 1979 reports 2.5 cm (1.0 in) in diameter when fully expanded). The sterile distal part of the flower tube is 5-8.5 mm, longer than the stamen-bearing part. The outer tepals are conspicuously fringed; the inner tepals 21 per flower, pure white, pale rose-pink, or pale lavender-pink, darker centrally. The outer filaments are cream; the anthers pale yellow or nearly white; the stigma lobes 4-6, white, 2-4 mm. The outer perianth segments are acute, and ciliate, while the inner perianth-segments are narrowly pointed. The fruit is oblong, bright red, 13-25 x 3.5-6.5 mm in size, not very succulent; the floral remnant is strongly persistent. Seeds are reddish brown, darker with age, pitted, obliquely obovoid, with a small ventral hilum. (Britton and Rose 1937; Benson 1979; FNA editorial committee 1993+).

AIDS TO IDENTIFICATION:

ILLUSTRATIONS: Color photos (W.L. Courtesy in USDA PLANTS,

http://plants.usda.gov/cgi_bin/plant_profile.cgi?symbol=ESTU)

Line drawing (Flora of North America Editorial Committee 1993+, in

http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=242415323)

Color photo (*In*

http://www.desert-tropicals.com/Plants/Cactaceae/Escobaria_strobiliformis.html)

Color photo (*In*

<http://www.cactiguide.com/cactus/?genus=Escobaria&species=tuberculosa>)

Color photo (Paul Brunelle, in

<http://www.dal.ca/~dp/cactus/cpics/Etuberculosa.html>)

TOTAL RANGE: Southeast Arizona, southern New Mexico, southwest Texas, and adjacent Mexico (Chihuahua, Coahuila, Durango).

RANGE WITHIN ARIZONA: Peloncillo and Chiricahua Mountains in Cochise County.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Succulent perennial.

PHENOLOGY: Flowering May to August; fruiting July to October. Blooms in the afternoon; flowers last for two days at a minimum.

BIOLOGY:

HABITAT: Limestone soils of hills, canyons, and alluvial fans in deserts, grasslands, oak-juniper savannas, and *Larrea* scrub.

ELEVATION: 1,639 – 5,902 feet (500–1800 m).

EXPOSURE:

SUBSTRATE: Limestone outcrops and hillsides, or igneous rocks and novaculite.

PLANT COMMUNITY: Deserts, grasslands, oak-juniper savannas, and *Larrea* scrub. Associated species include: *Acacia constricta* (whitethorn acacia), *Agave lechuguilla* (Lechugilla agave), *Agave palmeri* (century plant), *Dasyliirion* sp. (sotol), *Fouquieria splendens* (ocotillo), *Juniperus* sp. (juniper), *Nolina* sp. (beargrass), *Opuntia* sp., *Prosopis* sp. (mesquite), *Quercus* sp. (oak), and *Rhus* sp. (sumac).

POPULATION HISTORY AND TRENDS: Unknown

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None

STATE STATUS: Salvage Restricted under *Coryphantha strobiliformis* (ARS, ANPL 1999)

OTHER STATUS: None

MANAGEMENT FACTORS: In the wild, most cacti are threatened by horticultural collecting.

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS:

LAND MANAGEMENT/OWNERSHIP: BLM – Safford Field Office; Private.

SOURCES OF FURTHER INFORMATION

REFERENCES:

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- Britton, N.L., and J. N. Rose. 1963 re-publication of 1937 work. *The Cactaceae: Descriptions and illustrations of plants of the cactus family*. Volume IV. Dover Publications, Inc. New York, New York. Pp. 54–55.

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MAJOR KNOWLEDGEABLE INDIVIDUALS:**ADDITIONAL INFORMATION:**

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