

ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract

Element Code: PDCAC07020

Data Sensitivity: Yes

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

**NAME:** *Epithelantha micromeris* (Engelm.) A. Weber ex Britt & Rose  
**COMMON NAME:** Button cactus, pingpong ball cactus, ping-pong ball button-cactus, poke button cactus, Biznaga-blanca chilona [Spanish]  
**SYNONYMS:** *Mammillaria micromeris* Engelm., *Cactus micromeris* Kuntze Revis, *Echinocactus micromeris* F.A.C. Weber  
**FAMILY:** Cactaceae

**AUTHOR, PLACE OF PUBLICATION:** *Epithelantha micromeris* (Engelm.) A. Weber ex Britt. & Rose, Cactaceae 3: 93. 1922. *Mammillaria micromeris* Engelm., Proc. Amer. Acad. Arts and Sci. 3: 260-261. 1856.

**TYPE LOCALITY:** San Felipe Creek to the Pecos River, Texas

**TYPE SPECIMEN:**

**TAXONOMIC UNIQUENESS:** This is the only species in the genus *Epithelantha*. There are 2 varieties: var. *bokei* occurs in Texas, while var. *micromeris* occurs in Arizona, New Mexico and Texas. When looking at the genus, "Although generally resembling *Mammillaria* and superficially similar to *M. lasiacantha*, chloroplast DNA evidence somewhat inconclusively indicates that *Epithelantha* is taxonomically isolated and more closely related to *Pediocactus* and *Ariocarpus* than to *Mammillaria* (C.A. Butterworth et al. 2002)." (FNA 1993+).

**DESCRIPTION:** Small, erect, ovoid, globular cactus, often clumping, and with a depressed center. Plants are 5-9 cm (2-3.5 in) tall and 5-7.5 cm (2-3 in) in diameter, not deep-seated in substrate; roots are diffuse (tuberlike). Unsegmented stems are green, mostly spheric, often flat-topped, but usually obscured by the white spines, giving it a fuzzy appearance. Tubercles are numerous, not confluent into ribs, hemispheric or short cylindrical, very small, ca 1-3 mm; areoles at tips of tubercles, nearly circular, elliptic when distended by flower or fruit, copiously woolly only at sexually mature stem apex; areolar glands absent. The spines are furlike, white, 2 mm in size. The spines cover the entire plant from small areoles arranged in tight spirals around the plant. There are about 20-40 slender spines. Spines of each areole in 2 or sometimes three 3 superimposed series except for a dense adaxil tuft, grayish or purplish white, often with brown bases collectively forming brown spot at center of each spine cluster. The diurnal flowers are pale pink, funnellform, 15 mm long (FNA 1993+ reports flower measurement as 0.6-0.9 x 0.3-0.5 cm), and appear at the apex of the plant; the flowers are

usually obscured by the longer spines of the stem. The thin bright red fruit are 1.3cm long and 4-5 mm in diameter. The small, glossy seeds are black, reticulated, 1.2-1.4 x 1 mm.

**AIDS TO IDENTIFICATION:** Spines of *Epithelantha micromeris* 20-35(-40) per areole, in 1-3 superimposed series except for adaxial tuft, grayish or purplish white; general aspect of stem relatively rough; flowers 0.6-0.9 x 0.3-0.5 cm, usually obscured by the longer spines of the stem. For *E. bokei*, spines (40-)50-90 per areole, in more than 3 superimposed series, uniformly white to creamy yellow; general aspect of stem appearing smooth and shiny; flowers 1-1.7 x 1-1.7 cm. (FNA 1993+).

**ILLUSTRATIONS:** Color photo (Hook in <http://www.astrobase.de/Coahuil/Bilder/Bolabeg/Seiten/00000286.htm>).  
Color photo (Miller in <http://www.cactuscollection.net/cacti/epithelantha/emicromeris/emicromeris.htm>)  
Color photo (W.L. Wagner, in USDA, NRCS at [http://plants.usda.gov/cgi\\_bin/plant\\_profile.cgi?symbol=EPMI2](http://plants.usda.gov/cgi_bin/plant_profile.cgi?symbol=EPMI2))

**TOTAL RANGE:** Southeastern Arizona, New Mexico, Western Texas, and northern Chihuahua, Mexico.

**RANGE WITHIN ARIZONA:** Santa Cruz and Cochise counties in southeastern Arizona.

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

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

**PHENOLOGY:** The flowers appear in May-June.

**BIOLOGY:** These cacti are normally found in small clusters because the seeds fall nearby. Also wind, rain, and wildlife help with the dispersal of seeds. Its' sun exposure is light shade to full sun. This cactus can withstand the cold down to 15° F (-10° C). It needs a moderate amount of water and a mixed soil that drains well. This cactus has a tap root.

**HABITAT:** The Button cactus can be found in desert grasslands, on hills and ridges in Chihuahuan Desert.

**ELEVATION:** 3,000 – 5,800 ft (1000-1769 m).

**EXPOSURE:** Collected on SW-facing slope.

**SUBSTRATE:** Limestone or sometimes igneous soils.

**PLANT COMMUNITY:** Chihuahuan Desert. Associated species include: *Cercocarpus* (mountain-mahogany), *Choisya dumosa* (Mexican orange), *Dasyilirion wheeleri* (spoonflower), *Glossopetalon spinescens* (spiny greasebush), *Juniperus* (juniper), *Rhus* (sumac), and *Yucca*.

**POPULATION HISTORY AND TRENDS:** Unknown

### **SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** None  
**STATE STATUS:** Salvage Restricted (ARS, ANPL 1999)  
[Salvage Restricted (ARS, ANPL 1993)]  
**OTHER STATUS:** Determined Subject to Special Protection  
(Secretaria de Medio Ambiente 2000)

**MANAGEMENT FACTORS:** As with other cacti, subject to horticultural collecting.

**PROTECTIVE MEASURES TAKEN:**

**SUGGESTED PROJECTS:**

**LAND MANAGEMENT/OWNERSHIP:** USFS - Coronado National Forest; State Land Department; Private.

### **SOURCES OF FURTHER INFORMATION**

#### **REFERENCES:**

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#### MAJOR KNOWLEDGEABLE INDIVIDUALS:

#### ADDITIONAL INFORMATION:

This plant does not do well as a transplant due to its' brittle roots. Also known as the false peyote and used by the Tarahumara as a narcotic because it has hallucinogenic alkaloids. The name comes from the Greek for "flower at the top of the nipple", a reference to the fact that the flowers don't originate between the nipple as in the genus *Mammillaria*.

The genus name *Epithelantha*, is from Greek *epi*, upon, *thele*, nipple, and *anthos*, flower, describing the flower position near the tubercle apex. (FNA 1993+).

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