

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

**Plant Abstract**

**Element Code:** PDCACOD1K0

**Data Sensitivity:** Yes

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Opuntia versicolor*  
**COMMON NAME:** Staghorn Cholla, Deerhorn Cholla, Tree Cholla  
**SYNONYMS:** *Cylindropuntia versicolor*  
**FAMILY:** Cactaceae

**AUTHOR, PLACE OF PUBLICATION:** *Opuntia versicolor* Engelm. ex J. M. Coult. *Opuntia arborescens* Dames 1904. *Cylindropuntia versicolor* F. M. Knuth 1935.

**TYPE LOCALITY:** Tucson, Pima County, Arizona.

**TYPE SPECIMEN:**

**TAXONOMIC UNIQUENESS:** There are at least 300 species of *Opuntia* in the world with 28 of these species being in Arizona.

**DESCRIPTION:** Erect shrub, 8 feet tall (2.4 m) or more. Tree like open cluster of branches. Size is 3-12 ft (0.9-3.66 m) and spread 3-9 ft (0.9-2.74 m). Very small scale-type leaves flush on new growth, lost later, joints are narrow (4-12 in (10-30.5 cm) long,  $\frac{3}{4}$  in thick), and spines are relatively sparse. The trunk may be low up to 4 inches in diameter and the joints are sausage-shaped. The stems may be green or purple. The flowers are on joint ends, simple, 1 inch long; color may be lime green, yellow, orange, bronze or magenta. The fruit are 1-2 in (2.54-5 cm) long, barrel-shaped shriveled green fruits held on terminal portions of joints. New fruits often develop on last year's fruits; occasionally a chain of 2 or 3 is seen. Each areole contains 5 to 11 spines and brown glochids. Spines up to 16 mm (5/8 in) in length and are reddish to gray. The seed is light tan in color 2-4 mm (1/16 to 1/8 in) in diameter, irregular and rough. Has forked branches resembling deer antlers.

Opuntias are distinguished from other cacti by four characteristics. First, the stems grow in distinctly jointed segments. The elongation of joints is permanently terminated by the onset of the dry season; subsequent growth of the plant occurs by the initiation of new joints by branching from the areoles (other cacti have indeterminate growth). Second, whether or not they have regular spines, opuntiid areoles bear glochids. Third, rudimentary leaves are present on new joints. Fourth, the seeds have a pale covering called an aril; most other cacti have shiny black seeds.

**AIDS TO IDENTIFICATION:** The variably colored flowers (generally yellow) are followed by fleshy fruits, near spineless, that stay on the bush for up to a year. The related buckhorn cholla has spiny dry fruits that fall rapidly.

**ILLUSTRATIONS:** Color photo (Webber *in* [http://elib.cs.berkeley.edu/cgi/img\\_query?enlarge=0024+3291+1998+0009](http://elib.cs.berkeley.edu/cgi/img_query?enlarge=0024+3291+1998+0009))  
Color photo of flowers (*In* <http://www.astroshow.com/flowers/image24.jpg>)  
Color photo of spines (*In* <http://www.ruf.rice.edu/~bws/ebchollefn.html>)  
Color photo of fruits (Moore *in* [http://ag.arizona.edu/pima/gardening/aridplants/Opuntia\\_versicolor.html](http://ag.arizona.edu/pima/gardening/aridplants/Opuntia_versicolor.html))  
Color photo (Epple 1995 Pl. 118)

**TOTAL RANGE:** Arizona and northern Mexico, but has been report but not confirmed in Texas and New Mexico.

**RANGE WITHIN ARIZONA:** Pima, Cochise and Pinal Counties, and possibly southern Gila County.

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

**GROWTH FORM:** An arborescent plant or sometimes a widely spreading shrub, evergreen.

**PHENOLOGY:** The variably colored flowers (generally yellow) are followed by fleshy fruits, near spineless, that stay on the bush for up to a year. Flowers appear April to June. Always in fruit when mature.

**BIOLOGY:** Has excellent tolerance of heat and needs little water. The central trunk darkens with age and forms a sturdy woody structure. All desert species of *Opuntia* are pollinated by a few species of bees that specialize in cacti. Many mammals, birds and insects feed on the fleshy fruits as may desert tortoises and spiny iguana. Humans extensively use opuntias for food and other purposes.

**HABITAT:** Mesas and foothills, bajada slopes, sandy washes, plains and canyons.

**ELEVATION:** 1,000-4,000 ft (305-1219 m).

**EXPOSURE:** Full sun

**SUBSTRATE:** Deep sandy soils, well watered areas of flats.

**PLANT COMMUNITY:** Desertscrub and desert grassland. In Wildhorse Canyon of the Saguaro National Park, *Opuntia versicolor* is found scattered throughout the Saguaro-foothills paloverde desertscrub, and associated with Saguaro (*Carnegia gigantea*), foothills paloverde (*Parkinsonia microphylla*), mesquite (*Prosopis velutina*), whitethorn acacia (*Acacia constricta*), ocotillo (*Fouquieria splendens*), terpetine bush (*Ericameria laricifolia*), fairy duster (*Calliandra eriophylla*), brittle bush (*Encelia farinose*), sotol (*Dasyilirion wheeleri*), prickly pear (*Opuntia phaeacantha*), fishhook barrel cactus (*Ferocactus wislizenii*), sideoats grama (*Bouteloua curtipendula*), slender grama (*B. repens*), curly mesquite (*Hilaria belangeri*), tanglehead (*Heteropogon contortus*), and spidergrass (*Aristida ternipes*). (Halvorson and Gebow 2000).

**POPULATION HISTORY AND TRENDS:**

**SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:**

**STATE STATUS:**

Salvage Restricted (ARS, ANPL 1999)

**OTHER STATUS:**

**MANAGEMENT FACTORS:** As with most cacti, this species is subject to horticultural collecting.

**PROTECTIVE MEASURES TAKEN:**

**SUGGESTED PROJECTS:**

**LAND MANAGEMENT/OWNERSHIP:** FWS – Buenos Aires National Wildlife Refuge and Cabeza Prieta National Wildlife Refuge; NPS – Organ Pipe Cactus National and Saguaro National Park; USFS – Coronado National Forest; Private.

**SOURCES OF FURTHER INFORMATION**

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**MAJOR KNOWLEDGEABLE INDIVIDUALS:**

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**ADDITIONAL INFORMATION:**

*Opuntia versicolor* easily hybridizes with other chollas.

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