

**Added to List 3 on 4/2/09**

**Rare Plant Status Review: *Cylindropuntia xfosbergii*  
Proposed New Add to List 1B.2 3**

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February 12, 2008

Comments made since the original status review appear in blue.

**Background**

*Cylindropuntia xfosbergii* is a California endemic, succulent in the Cactaceae. It was included in *The Jepson Manual* (1993) and will be included in *The Jepson Manual* (2<sup>nd</sup> Edition). According to Jon Rebman (pers. comm. 2009), "For the Jepson treatment we are recognizing it with a hybrid "x" in front as *C. xfosbergii* because we know that it has some genomes of *C. bigelovii* in it. However, recent molecular and taxonomic work by Mike Mayer at USD and myself are showing that it is not a simple interspecific hybrid. It is not intermediate between two different cholla species in respect to morphology. We are having a lot of problems determining who the other parent actually is. It may not even be an extant species. Plus, the populations do show some genetic variability, although the individuals do not seem to be reproducing sexually very often. It is still a bit of a mystery and we may end up removing the "x" symbol as more data comes in if we can not unravel its parentage." *C. xfosbergii* is distinguished from other cacti based on its growth habit, and characteristics of its fruit, spines and tubercles. Although it reproduces primarily by asexual means, *C. xfosbergii* flowers infrequently between March and April.

*C. xfosbergii* is known from rocky, gravelly or sandy soils on slopes and alluvial fans in Sonoran desert scrub habitat (frequently dominated by *Larrea tridentata*) from approximately 85 to 850 meters in elevation.

*C. xfosbergii* is known from approximately 18 occurrences within a relatively small geographic area of eastern San Diego County. Many of the occurrences are only known from historical collections and observations. Suitable habitat within, and beyond, the known range of *C. xfosbergii* should be searched for additional occurrences. Jon Rebman (pers. comm. 2009) states that *C. xfosbergii*, "is definitely not a common species in our desert, and has a very restricted geographic range. However, because it is very good at vegetative reproduction you can find it locally common in some populations." The population size of *C. xfosbergii* is not well known. Much of the information that is available is from past reports by Anza-Borrego Desert State Park and the BLM from 1978 and 1980, respectively. At that time, population estimates ranged from relatively few plants at several locations (between 1 and 50 plants at 6 occurrences) to more than 200 plants at 4 occurrences. Field work is needed to accurately estimate the population sizes of, and to accurately map most occurrences of *C. xfosbergii*.

In the past, *C. xfosbergii* has been treated as *Opuntia fosbergii*, *O. x fosbergii*, and *O. bigelovii* var. *hoffmannii*. *O. bigelovii* var. *hoffmannii* was included on List 2 (Plants Rare and Endangered) in the 2<sup>nd</sup> Edition of the CNPS Inventory. It was moved to Appendix I (Plants Considered, but Not Included) in the 3<sup>rd</sup> Edition (1984) of the Inventory due to its uncertain taxonomic status. *O. bigelovii* var. *hoffmannii* has remained on the Considered but Rejected list ever since.

Many of the occurrences of *C. xfosbergii* occur on land managed by the Bureau of Land Management and Anza-Borrego Desert State Park. ~~*C. xfosbergii* is threatened by horticultural collecting.~~ Occurrences on private land are potentially threatened by development.

Current evidence indicates that *C. xfosbergii* is a self-sustaining taxon of hybrid origin. Nonetheless, its distribution, ecological context, and population characteristics are consistent with other naturally occurring, rare plant taxa.

Consequently, CNPS and CNDDDB recommend that *C. xfosbergii* be added to CNPS List 4B.2 3.

### Recommended Actions

CNPS: Add to CNPS List 4B.2 3

CNDDDB: Add to CNDDDB as G2 / S2

Please review the draft CNPS Inventory record below, respond Yes or No on the proposal to add this species to the Inventory and CNDDDB, and provide any edits/comments. If responding No, please provide supporting information.

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### Draft CNPS Inventory Record

*Cylindropuntia xfosbergii* (C.B. Wolf) Rebman, M.A. Baker & Pinkava

pink teddy-bear cholla

Cactaceae

List 4B.2 3

San Diego

Arroyo Tapiado 018B (3211682), Sweeny Pass 18C (3211672), Monument Peak 019B (3211684), Earthquake Valley 032C (3311614), Agua Caliente Springs 019A (3211683)

Sonoran desert scrub; elevation 415-610 meters.

Stem succulent. Blooms March-April.

~~Threatened by horticultural collecting.~~ Potentially threatened by development.

Likely a stabilized, self-sustaining hybrid.