

CANDIDATE ASSESSMENT AND LISTING PRIORITY ASSIGNMENT FORM

SCIENTIFIC NAME: *Echinomastus erectocentrus* var. *acunensis*

COMMON NAME: Acuna cactus

LEAD REGION: Region 2

INFORMATION CURRENT AS OF: January 21, 2003

STATUS/ACTION (Check all that apply):

New candidate

Continuing candidate

Non-petitioned

Petitioned - Date petition received: 10/30/2002

90-day positive - FR date:

12-month warranted but precluded - FR date:

Is the petition requesting a reclassification of a listed species?

Listing priority change

Former LP:

New LP:

Latest date species first became a Candidate: July 1, 1975

Candidate removal: Former LP: (Check only one reason)

A - Taxon more abundant or widespread than previously believed or not subject to a degree of threats sufficient to warrant issuance of a proposed listing or continuance of candidate status.

F - Range is no longer a U.S. territory.

M - Taxon mistakenly included in past notice of review.

N - Taxon may not meet the Act's definition of *Aspecies*.@

X - Taxon believed to be extinct.

ANIMAL/PLANT GROUP AND FAMILY: Plant, *Cactaceae*

HISTORICAL STATES/TERRITORIES/COUNTRIES OF OCCURRENCE: Arizona

CURRENT STATES/COUNTIES/TERRITORIES/COUNTRIES OF OCCURRENCE: Pima and Pinal Counties, Arizona

LEAD REGION CONTACT: Susan Jacobsen (505-248-6641)

LEAD FIELD OFFICE CONTACT: Arizona Ecological Services Field Office, Tucson sub-office, Mima Falk (520-670-4550)

BIOLOGICAL INFORMATION (Describe habitat, historic vs. current range, historic vs. current population estimates (# populations, #individuals/population), etc.):

This cactus is known only from well-drained gravel ridges and knolls on granite soils in Sonoran Desert scrub association at 1300-2000 feet elevation. Populations are known from Pinal and Pima counties in Arizona and Sonora, Mexico (U.S. Fish and Wildlife Service 1992). The Arizona Game and Fish Department (1992) notes 5 occurrences including historical ones. Six sites are currently known; one historical site has not been located recently. A new site was found in the Sand Tank mountains in 2000. Population sizes are unknown at this time.

THREATS (Describe threats in terms of the five factors in section 4 of the ESA providing specific, substantive information. **If this is a removal of a species from candidate status or a change in listing priority, explain reasons for change**):

A. The present or threatened destruction, modification, or curtailment of its habitat or range.

Habitat destruction through development has and will continue to be a threat to this cactus. Mining is also a threat to this plant. Urban development, in the Ajo, Arizona, area as well as Sonoyta, Mexico will continue to be significant threat to this species. Past mining activities in the Ajo area have removed a significant portion of the population from the area and the remaining plant populations have been fragmented.

B. Overutilization for commercial, recreational, scientific, or educational purposes.

Illegal collection is a primary threat to this cactus variety. In 1997 the National Park Service (Organ Pipe National Monument) reported illegal collection of these plants from their lands.

C. Disease or predation.

Dead plants have been found; however, the cause is unknown. Additionally, plants have been found uprooted, possibly by animals. Starting in 1997, cacti monitored in Organ Pipe Cactus National Monument (OPCNM) showed 50% mortality, attributed to being uprooted and mortality associated with dry winters. A very large percent of the adult cacti died. This will have a marked effect on the total reproductive output for these populations in OPCNM (which are the largest populations that exist). Although the plants were not specifically monitored on Bureau of Land Management lands, observations showed a similar fate for those populations. (Sue Rutman, OPCNM pers. comm. March, 2001).

D. The inadequacy of existing regulatory mechanisms.

This cactus is protected by Arizona Plant Law and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). However, CITES does not regulate take or domestic trade. Also, the remoteness of most of the cactus populations makes enforcement of the existing regulatory mechanisms very difficult.

E. Other natural or manmade factors affecting its continued existence.

Natural death of individuals by unknown causes may leave the populations more vulnerable to the human-caused threats.

BRIEF SUMMARY OF REASONS FOR REMOVAL OR LISTING PRIORITY CHANGE:

N/A

FOR RESUBMITTED PETITIONS:

- a. Is listing still warranted? Yes
- b. To date, has publication of a proposal to list been precluded by other higher priority listing actions? Yes
- c. Is a proposal to list the species as threatened or endangered in preparation? No
- d. If the answer to c. above is no, provide an explanation of why the action is still precluded: Since publication of the 2002 CNOR, the publication of a proposed rule to list this species has been precluded by other higher priority listing actions, and based on work scheduled we expect that will remain the case for the remainder of Fiscal Year 2004. Almost the entire national listing budget has been consumed by work on various listing actions taken to comply with court orders and court-approved settlement agreements, emergency listing, and essential litigation-related, administrative, and program management functions. We will continue to monitor the status of the Acuna cactus as new information becomes available. This review will determine if a change in status is warranted, including the need to make prompt use of emergency listing procedures.

LAND OWNERSHIP (Estimate proportion Federal/state/local government/private, identify non-private owners): This cactus is found on lands managed by the BLM, National Park Service at OPCNM, Arizona State Land Department, Department of Defense lands, and private lands.

PRELISTING (Describe status of conservation agreements or other conservation activities): The Service funded a study, which is analyzing demographic and monitoring data to determine population dynamics of this cactus. The study was completed in 1999 and was funded by section 6 dollars. The study was general in nature and did not give us cause and effect for the observations of mortality.

REFERENCES

Arizona Game and Fish Department. 1999. Heritage Data Management System: Plants-Status and Occurrences. Phoenix, AZ

U.S. Fish and Wildlife Service. 1992. Handbook of Arizona's Endangered, Threatened, and Candidate Plants. Arizona Ecological Services Field Office, Phoenix, AZ

LISTING PRIORITY

THREAT

Magnitude	Immediacy	Taxonomy	Priority	
High	Imminent	Monotypic genus	1	
		Species	2	
		Subspecies/population	3	
	Non-imminent	Non-imminent	Monotypic genus	4
			Species	5
			Subspecies/population	6 *
Moderate to Low	Imminent	Monotypic genus	7	
		Species	8	
		Subspecies/population	9	
	Non-imminent	Non-imminent	Monotypic genus	10
			Species	11
			Subspecies/population	12

Rationale for listing priority number:

Magnitude: Populations of *Acuna cactus* on OPCNM have shown a 50% mortality in recent years. The reason(s) for the mortality are not known, but continuing drought conditions are thought to play a role. Populations that exist in the Florence area have not been monitored, but the area is experiencing urban growth and populations could be in danger of fragmentation and habitat loss. Increased illegal activities in OPCNM will almost certainly affect existing populations and habitat. Populations in ORCNM were not monitored in 2003 because of safety concerns for employees (S. Rutman, pers. comm. 2003).

Imminence: The populations at OPCNM have not yet been directly affected by new roads and other illegal activities, but areas very close to known populations have been altered. The threats to populations in the Florence area have not been documented.

APPROVAL/CONCURRENCE: Lead Regions must obtain written concurrence from all other Regions within the range of the species before recommending changes to the candidate list, including listing priority changes; the Regional Director must approve all such recommendations. The Director must concur on all additions of species to the candidate list, removal of candidates, and listing priority changes.

Approve: Tom Bauer March 14, 2003
Acting Regional Director, Fish and Wildlife Service Date

Concur: Steve Williams April 5, 2004
Director, Fish and Wildlife Service Date

Do not concur: _____
Director, Fish and Wildlife Service Date

Director's Remarks: _____

Date of annual review: Feb. 2003

Conducted by: Mima Falk

Comments:

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