



12-Month Petition Finding and Proposed Downlisting for Santa Cruz Cypress

QUESTIONS AND ANSWERS

Description

Santa Cruz cypress (*Hesperocyparis abramsiana*) is a tree in the cypress family that exists in the Santa Cruz Mountains of Santa Cruz and San Mateo Counties, California. It occurs in patches within a mosaic of coastal chaparral and mixed evergreen forests located on dry ridges inland from the coastal fog belt. There are five known populations that span a range of 15 miles from north to south totaling approximately 188 acres.

With mature trees averaging 20–33 feet (6–10 meters) in height, Santa Cruz cypress can live to be 100 years old. Trees reach reproductive maturity and begin producing cones at an average age of 11 years and slowly release seeds throughout life; each cone bears 8-10 seeds. However, fire can accelerate seed release and areas that have been recently disturbed by fire can produce a high number of saplings.



Like most cypress species, Santa Cruz cypress do not resprout after a fire and are completely dependent on seed establishment for post-disturbance regeneration. Thus, the germination and establishment of new seedlings depends on either fire or a managed substitute (e.g., controlled burns, thinning or other methods (such as scraping) to manage the demographic profile of the populations.

Questions and Answers

Q. What is being proposed?

A. The U.S. Fish and Wildlife Service is proposing to reclassify Santa Cruz cypress (*Hesperocyparis abramsiana*) from endangered to threatened status under the Endangered Species Act (ESA). The proposal reflects the best information available about the status of and threats to the species suggesting it no longer meets the Service's definition of endangered. We

are also correcting the scientific name for Santa Cruz cypress on the Federal List of Endangered and Threatened Plants within our regulations at 50 CFR.17.12.

Q. What factors does the Service use to determine that a species is endangered or threatened?

A. Under the ESA, the Service can determine that a species is an endangered or threatened species based on any one or a combination of five factors:

1. The present or threatened destruction, modification, or curtailment of its habitat or range;
2. Overutilization for commercial, recreational, scientific, or educational purposes;
3. Disease or predation;
4. Inadequacy of existing regulatory mechanisms; or
5. Other natural or manmade factors affecting its continued existence

Q. Why is the Santa Cruz cypress proposed to be downlisted from endangered to threatened?

A. Since the Santa Cruz cypress was listed as an endangered species under the ESA in 1987, the status of the Santa Cruz cypress has improved. This is because the majority of threats that existed at the time of listing has been greatly reduced or is no longer impacting the species; there is a substantially larger number of individuals known today; and an increased level of conservation has occurred throughout the species range primarily through the establishment of parks and reserves.

After careful review and analysis of the best available scientific and commercial information regarding threats to the species, the Service has determined that the imminence, severity and magnitude of ongoing threats to Santa Cruz cypress do not indicate that the species is presently in danger of extinction throughout all or a significant portion of its range; thus it no longer meets the definition of endangered but meets the definition of threatened.

Under the ESA, an endangered species is one that is in danger of extinction throughout all or a significant portion of its range. A 'threatened' species is one that is likely to become endangered in the foreseeable future.

Q. What are the current threats to the Santa Cruz cypress?

A. The primary threat to Santa Cruz cypress and its habitat is the alteration of fire frequency, which impacts seed germination and establishment of new seedlings- regeneration. Other threats include: competition with nonnative invasive species, genetic introgression, vandalism, unauthorized recreational activities, and potentially climate change.

While most of the populations have been protected through the preservation of lands, no active management is currently occurring to manage the demographic profile of the populations. Research on suitable management methods has only occurred at Bonny Doon Ecological Reserve.

Additionally, although substantial mechanisms are currently in place to protect Santa Cruz cypress and its habitat, the existing regulatory mechanisms are inadequate to fully protect the species from its threats. There is little to no dedicated funding for the management of current threats to the species.

Q. What has helped improve the status of the species?

A. Protection has been secured for all known populations (five) of Santa Cruz cypress and habitat from the primary threats that once existed at the time of listing (residential development, agricultural conversion, and logging).

Extensive conservation efforts have taken place throughout the species range, mainly through the preservation of lands by the California Department of Fish and Wildlife, the California Department of Parks and Recreation, and the County of San Mateo. In addition, populations on privately-owned lands in Santa Cruz County have received some protection through state and county regulations, such as the designation of lands as environmentally sensitive habitat.

But, the species still faces ongoing threats to its long-term survivability, primarily from low level of regeneration due to the alteration of fire frequency. While these threats will continue into the foreseeable future, the imminence, intensity, or magnitude of these ongoing threats does not indicate the cypress is in danger of extinction throughout its range; thus downlisting to threatened status is warranted.

Q. Why are the population number estimates greater now than at the time the species was listed?

A. When the species was listed in 1987, the estimated abundance of individuals was approximately 2,300. This has changed to the current estimation of 33,000 – 44,000. At the time of listing, population estimates were based on field reconnaissance rather than systematic observation of stand area and density. Over time, more accurate and improved information has been gathered. These estimates do not illustrate trends, but rather more accurate and improved information that has been gathered about the species over time.

Q. Specifically, what kind of information is the Service looking for?

A. The Service intends that any final action resulting from this proposal will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from the public, other concerned governmental agencies, Native American tribes, the scientific community, industry, or any other interested parties concerning these proposed rules.

We particularly seek comments concerning:

- (1) Reasons why we should or should not reclassify Santa Cruz cypress under the ESA (16 U.S.C. 1531 *et seq.*).
- (2) New biological or other relevant data concerning any threat (or lack thereof) to this species.
- (3) New information concerning the population size or trends of this species.
- (4) New information on how Santa Cruz cypress responds to fire, especially as it pertains to prescribed fire and alternatives to prescribed fire (e.g., mechanical disturbance) that would support increased recruitment for this species.
- (5) New information on the current or planned activities within the range of the species that may adversely affect or benefit the species.
- (6) New information or data on the projected and reasonably likely impacts to Santa Cruz cypress or its habitat associated with climate change.

Q. What's the deadline and where do I submit my comments?

A. The Service will be accepting comments through November 04, 2013. Comments may be submitted electronically at the Federal eRulemaking Portal at <http://www.regulations.gov>. In the Search box, enter the Docket No. and follow the instructions. The Docket Number for the proposed rule is FWS-R8-ES-2013-0092. Comments can also be sent by U.S. mail or hand-delivery to:

Public Comments Processing
Attn: FWS-R8-ES-2013-0092
Division of Policy and Directives Management
U.S. Fish and Wildlife Service
4401 N. Fairfax Drive, MS 2042-PDM
Arlington, VA 22203

Q. Are there any distinguishing differences in protections between the two varieties of Santa Cruz cypress?

A. There are two varieties of Santa Cruz cypress and both varieties have the same protections under the ESA. One variety is represented by only one population in San Mateo County, California (*H. a. var. butanoensis*; known as the Butano Ridge population; longer seed cones) and the other variety is represented by four populations in Santa Cruz County, California (*H. a. var. abramsiana*; known as the Eagle Rock, Bracken Brae, Bonny Doon, and Majors Creek populations).

Q. When can the Santa Cruz cypress be removed from the ESA's protections (delisted)?

A. Santa Cruz cypress can be removed from the ESA's protections (delisted) once all five populations are assured of long-term reproductive success and have the insurance of available seed banks. Seed has been collected (banked) for four populations: Bonny Doon, Majors Creek, Bracken Brae, and Eagle Rock. No seed has been collected yet for the Butano Ridge population.

The ultimate goal of the ESA is to “recover” species. Recovery is the process by which the decline of an endangered or threatened species is arrested and threats are removed or reduced, ensuring the long-term survival of the species in the wild. At this point the species is recovered, and protection of the ESA is no longer necessary.

It is by working with partners and using a range of conservation tools to “recover” endangered and threatened species that the Service ensures species are secure in their ecosystems.

Q. What happens next?

A. The Service will compile and assess all comments received during the public comment period and seek the expert opinions of at least three appropriate and independent specialists with scientific expertise to ensure our determinations are based on scientifically sound data, assumptions, and analyses. We will consider all comments and information we receive during the comment period on this proposed rule as we prepare the final determination. Accordingly, the final decision may differ from this proposal.