

pyrifolium, *Mariscus fauriei*, *Melicope zahlbruckneri*, *Neraudia ovata*, *Nothoecetrum breviflorum*, *Phyllostegia racemosa*, *Phyllostegia velutina*, *Phyllostegia warshaueri*, *Plantago hawaiiensis*, *Pleomele hawaiiensis*, *Portulaca sclerocarpa*, *Sesbania tomentosa*, *Sicyos alba*, *Silene hawaiiensis*, *Silene lanceolata*, *Solanum incompletum*, *Spermolepis hawaiiensis*, *Tetramolopium arenarium*, *Vigna o-wahuensis*, *Zanthoxylum dipetalum* var. *tomentosum*, and *Zanthoxylum hawaiiense*. Similar comments were grouped into general issues and are addressed in the following summary.

Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), we solicited independent opinions from 23 knowledgeable individuals ("peer reviewers") with expertise in one or several fields, including familiarity with the species, familiarity with the geographic region that the species occurs in, and familiarity with the principles of conservation biology. We received comments from 10 of these reviewers. All generally supported our methodology and conclusions. Four of the peer reviewers supported the designation of critical habitat on the island of Hawaii and the other six neither specifically supported or opposed the designation. Comments received from the peer reviewers are summarized in the following section and were considered in developing this final rule.

Issue 1: Biological Justification and Methodology

(1) *Comment:* A peer reviewer commented on the configuration of the units, stating that with irregular boundaries, the units will be difficult to identify on the ground and that such boundaries will complicate management and increase the risk of fragmentation and edge effects on plant populations within the units. The reviewer also noted that proposed units do not appear to be representative of known geographic and elevation ranges for species and that unit boundaries appear to encompass the minimum area needed to capture known site localities, which may not provide the full spectrum of habitat conditions necessary for long-term survival and recovery.

Our Response: The irregular boundaries are a result of attempting to map the primary constituent elements for each species and of the overlapping effect of multiple species' critical habitat. Universal Transverse Mercator coordinates are given to help locate

these properties on the ground. We concur with the peer reviewer on the importance of protecting the ecosystems on which these species depend, as stated in the purpose of the Act (section 2(b)), and of conserving areas large enough to maintain and expand populations. We considered the importance of this, as well as the location of primary constituent elements, when delineating the boundaries of critical habitat for these final designations. While we acknowledge the potential negative impacts of edge effects on small habitat fragments, we only included areas that provide the biological and other processes that are essential for the conservation of the species.

(2) *Comment:* We received several comments regarding the incorporation of unoccupied habitat with critical habitat. A peer reviewer commented on the incorporation of unoccupied habitat to allow for the recovery of species that have been reduced to an unsustainable number of populations and said that it is unclear whether sufficient habitat is protected to provide the minimum populations needed for recovery. Another commenter raised the issue that more acreage of unoccupied habitat than occupied habitat was being proposed as critical habitat. This commenter felt that critical habitat should encompass the best populations of each species unless this is entirely impractical. One peer reviewer stated that the Service relied too heavily on currently occupied habitat and did not address potential habitat that currently lacks rare species.

Our Response: The recovery plans for these species identify the need to expand existing populations and re-establish wild populations within the historical range of each species. Due to the extremely limited extant range of many of these species, designation of only occupied areas would not allow us to achieve the recovery goals developed for the species. Occupied areas, as well as similar contiguous or nearby habitat that occurs within the designated units of critical habitat that may be occupied in the future, provide the essential life cycle needs of the species and provide some or all of the habitat components essential for the conservation (*i.e.*, primary constituent elements) of these species.

The protection of additional unoccupied critical habitat is essential to ensure the recovery of these species through reintroduction. Although propagation and reintroduction are difficult for some species, both are vitally important to their recovery. Many recovery plans therefore include research into best methods of

propagation and reintroduction as important tasks prior to attempting reintroduction. Areas of unoccupied habitat are essential to the conservation of the species because they provide habitat for the establishment of new populations.

(3) *Comment:* Several commenters, including one peer reviewer, expressed concern regarding the Service's decision to not propose critical habitat for *Pritchardia* species. One reviewer concurred with our finding that designation was not prudent, citing their knowledge of theft and over-collection of the species; however, nine did not agree with the Service's finding that critical habitat was not prudent (particularly for *P. affinis* and *P. schattaueri*). Several commenters disagreed with the Service's decision to not propose critical habitat for *P. affinis* and *P. schattaueri*, stating that they felt the claim that designation would increase threats to these species was speculative.

Our Response: In this final rule to designate or not designate critical habitat for 58 plants from the island of Hawaii, we have incorporated new information, and we have addressed comments and new information received during the comment periods. However, no additional information was provided during the comment periods that demonstrates that the threats to *Pritchardia affinis* and *Pritchardia schattaueri* from vandalism or collection would not increase if critical habitat were designated for these species on the island of Hawaii. We believe that designation of critical habitat would likely increase the threat from vandalism to or collection of these species of *Pritchardia* on the island of Hawaii. First, they are easy to identify, and second, they may be attractive to collectors of rare palms either for their personal use or to trade or sell for personal gain (Johnson 1996). We believe that the evidence shows that species of *Pritchardia* may be attractive to such collectors. Several nurseries advertise and sell *Pritchardia* palms, including these and other federally listed *Pritchardia* species.

(4) *Comment:* The majority of the peer reviewers supported the multi-population approach and the Service's definition of a population for purposes of recovery; however, several peer reviewers commented on the recovery strategy of 8 to 10 populations for each species. Two peer reviewers commented that it might be difficult to achieve recovery plan goals of 8 to 10 populations for each species as some of these species are rare, localized island endemics that likely never had 8 to 10