

habitat of particular species and applies a "broad-brush" approach.

*Our Response:* In accordance with our policy on peer review published on July 1, 1994 (59 FR 34270), we solicited the expert opinions of appropriate and independent specialists regarding the proposed rule. The purpose of this peer review was to ensure that our methodology for designation of critical habitat of Maui plants was based on scientifically sound data, assumptions, and analysis. The majority of peer reviewers support our methodology. All data and information on species status information received in preparation of this rule were weighted equally and considered to come from reliable sources. Where discrepancies existed between different data sources, the most current data were used. While we agree that additional time would be beneficial for the preparation of these final rules, and the collection of more scientific information, we are required under the court-approved stipulation to finalize this designation by April 18, 2003. If provided with new information, we may revise the critical habitat designation in the future.

(16) *Comment:* Peer reviewers commented that a multi-population approach is essential for the survival and recovery of listed Hawaiian plant species. Multiple populations prevent small-scale changes in habitat from destroying all remaining individuals. The multiple population approach offers the opportunity to protect a wider range of genetic variability for each species, rather than concentrating on a single or small number of areas with genetically similar individuals. The Service has designated enough land to provide for the long-term conservation of multiple populations of the listed species.

*Our Response:* We agree that the multi-population approach to conservation is necessary for the recovery of Hawaii's endangered plants.

(17) *Comment:* One peer reviewer and other commenters stated that the proposed rule is improved by the inclusion of appropriate unoccupied habitat because such habitat will help to recover species that have been reduced to an unsustainable number of populations.

*Our Response:* We agree. Our recovery plans for these species identify the need to expand existing populations and reestablish wild populations within historic range.

(18) *Comment:* Several commenters opposed designating critical habitat in unoccupied areas. Two commenters wrote that lands in urban, agricultural, and rural districts are designated, used,

and intended for a wide variety of land use activities. As such, there is a much greater likelihood that critical habitat designation will have an adverse economic impact on the landowner. These commenters recommend the following rebuttable presumption: non-conservation lands which are unoccupied by any listed species should not be designated as critical habitat.

*Our Response:* Our recovery plans for these species identify the need to expand existing populations and reestablish wild populations within the historical range. Because of the very limited current range of many of these species, designating only occupied areas would not meet the conservation requirements of the species and would be inconsistent with our recovery plans. Occupied areas, as well as the similar habitat around them 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 (primary constituent elements) of these species. Expansion of some of these species to areas that were likely to have been historically occupied is essential to their recovery.

When designating unoccupied habitat for these species, we first evaluated lands that are suitable for each species. Of this suitable habitat, we determined which areas are essential for the conservation of each species using the guidelines outlined in the recovery plans (*i.e.*, areas that contain one or more of the primary constituent elements and are either in good condition for recovery efforts or could be made suitable through appropriate management actions), and would provide space needed by the species to reach our recovery goals of 8 to 10 populations with a minimum of 100 mature reproducing individuals per population for long-lived perennials, 300 mature reproducing individuals per population for short-lived perennials, and 500 mature reproducing individuals per population for annuals.

Areas that contain one or more of the primary constituent elements, are either in good condition for recovery efforts or could be made suitable through appropriate management actions, and would provide space needed by the species to reach our recovery goals of 8 to 10 populations with a minimum number of mature reproducing individuals as specified above, were determined to be essential for the conservation of each species, regardless of land-use zoning.

(19) *Comment:* Proposed critical habitat includes unoccupied habitat. It

appears that the Service has designated unoccupied habitat largely based on guesswork and the faulty conclusion that any areas that appear, based on limited biological knowledge to be potentially suitable habitat for these species (*i.e.*, "merely capable of supporting" these species), are by default essential habitat. This conclusion is not consistent with the provisions in the Act.

*Our Response:* As explained in the Methods section of this rule, we used the best scientific information available to determine areas that contain the physical and biological features that are essential for the conservation of the species covered by this designation. This information included the known locations, site-specific species information from the HINHP database and our own rare plant database; species information from the Center for Plant Conservation's (CPC's) rare plant monitoring database housed at the University of Hawaii's Lyon Arboretum; island-wide Geographic Information System (GIS) coverages (*e.g.*, vegetation, soils, annual rainfall, elevation contours, land ownership); the final listing rules for these 60 species; the December 18, 2000, proposal; the April 3, 2002, revised proposal; information received during the public comment periods and the public hearings; recent biological surveys and reports; our recovery plans for these species; and any species and management information received for the islands of Maui and Kahoolawe; discussions with botanical experts; and recommendations from the Hawaii and Pacific Plant Recovery Coordinating Committee (HPPRCC) (see also the discussion below) (GDSI 2000; HINHP Database 2000; HPPRCC 1998; Service 1995a, 1995b, 1996a, 1996b, 1997, 1998a, 1998b, 1999, 2001; 65 FR 66808; 67 FR 3940; CPC *in litt.* 1999).

In 1994, the HPPRCC initiated an effort to identify and map habitat it believed to be important for the recovery of 282 endangered and threatened Hawaiian plant species. The HPPRCC identified these areas on most of the islands in the Hawaiian chain, and in 1999, we published them in our *Recovery Plan for the Multi-Island Plants* (Service 1999). The HPPRCC expects that there will be subsequent efforts to further refine the locations of important habitat areas and that new survey information or research may also lead to additional refinement of identifying and mapping of habitat important for the recovery of these species.

The HPPRCC identified essential habitat areas for all listed, proposed,