

Section 4 requires that we designate critical habitat for a species, to the extent such habitat is determinable, at the time of listing. When we designate critical habitat at the time of listing or under short court-ordered deadlines, we may not have sufficient information to identify all the areas essential for the conservation of the species or, alternatively, we may inadvertently include areas that later will be shown to be nonessential. Nevertheless, we are required to designate those areas we determine to be critical habitat, using the best information available to us.

Our regulations state that "The Secretary shall designate critical habitat outside the geographic areas presently occupied by the species only when a designation limited to its present range would be inadequate to ensure the conservation of the species" (50 CFR 424.12(e)). Accordingly, when the best available scientific and commercial data do not demonstrate that the conservation needs of the species require designation of critical habitat outside of occupied areas, we will not designate critical habitat in areas outside the geographic area occupied by the species.

Our Policy on Information Standards
Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271), provides criteria, establishes procedures, and provides guidance to ensure that our decisions represent the best scientific and commercial data available. It requires our biologists, to the extent consistent with the Act and with the use of the best scientific and commercial data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat. When determining which areas are critical habitat, a primary source of information should be the listing package for the species. Additional information may be obtained from recovery plans, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, and biological assessments or other unpublished materials.

It is important to clearly understand that critical habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery. Areas outside the critical habitat designation will continue to be subject to conservation actions that may be implemented under section 7(a)(1) and to the regulatory protections afforded by the Act's 7(a)(2) jeopardy standard and section 9 prohibitions, as determined on the basis of the best available information at the

time of the action. We specifically anticipate that federally funded or assisted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans, or other species conservation planning efforts if new information available to these planning efforts calls for a different outcome. Furthermore, we recognize that designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the recovery of the species.

Methods

As required by the Act and regulations (section 4(b)(2) and 50 CFR 424.12), 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 Kauai cave wolf spider and the Kauai cave amphipod. This information included: peer-reviewed scientific publications, the final listing rule for the Kauai cave wolf spider and Kauai cave amphipod (65 FR 2348), the Hawaii Natural Heritage Program database, unpublished field data collected by Service biologists, and unpublished field notes and communications with other qualified biologists or experts, archeological surveys, drilling records, photographs, and published descriptions of the regional geology and soils (MacDonald *et. al.* 1960; Foote *et. al.* 1972), and the Recovery Outline for Two Cave Arthropods from Kauai, Hawaii (Service, 2000).

Section 3(5)(A)(ii) of the Act provides that areas outside the geographical area currently occupied by the species may meet the definition of critical habitat upon determination that they are essential for the conservation of these species. Although we do not know whether the entire area is currently occupied, to date all caves that have been surveyed within the Koloa basin that contain all of the primary constituent elements have contained the Kauai cave amphipod and/or cave wolf spider. Hence, where appropriate habitat occurs within the Koloa basin, we fully expect it will be occupied by one or both of these species. Surrounding areas of the known occupied caves that are comprised of cave-bearing rock also will likely contain occupied habitat.

The final rule listing the Kauai cave wolf spider and Kauai cave amphipod stressed that these animals were at increasing risk from "predation and competition for space, water, and nutrients by introduced, alien animals; biological and chemical pesticide control activities associated with residential and golf course development; and an increased likelihood of extinction from naturally occurring events due to the small number of remaining individuals and populations and their limited distribution" (65 FR 2348). Recovery may require augmentation or enhancement of suitable cave habitat and the surrounding mesocaverns.

The primary goal of this critical habitat designation effort is to identify and designate a sufficient amount of suitable habitat to provide for the conservation of these two species. The Service has been challenged in this effort by the lack of scientific information on the distribution of the species and their suitable cave habitat within the Koloa basin, and a lack of understanding of the physical and genetic relationship between populations located in the various cave systems that are scattered throughout the basin.

To address these questions, the Service requested and received information in response to the publication of the proposed critical habitat designation. This information, which is detailed in the Summary of Changes from the Proposed Rule, provided new data on the location of occupied cave systems and also indicated areas of relatively higher quality habitat that are more likely to be occupied by these species. This new information allowed us to refine an original proposal by more precisely identifying areas essential to the conservation of these species.

However, there are still significant gaps in our current understanding of these species and their habitat needs, especially concerning the degree to which individual cave systems are or are not connected to one another. We did not receive any additional information as to the extent of the importance of intercave dispersal corridors or any information that would allow us to identify where these corridors are specifically located. Absent this information, we are unable to designate as critical habitat any areas that may provide connectivity between cave systems. First of all, we do not have data to show that such connectivity is occurring and if it is, to what extent and what importance does it play in the continued existence of the