

Science and the Endangered Species Act

Committee on Scientific Issues in the Endangered Species Act
Board on Environmental Studies and Toxicology
Commission on Life Sciences
National Research Council

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be considered "critical." But that a species is absent from a given habitat does not mean that the habitat is not critical to the persistence of the species (see [Chapter 5](#)). Identification of the relationship of a species to habitat and the determination of what is critical to the long-term survival of that species are high priorities for long-term conservation. The complexity of designating critical habitat will vary by species, but designation should be possible in many cases. Mechanisms exist to uncouple critical habitat designations from listing when they need additional investigation and would otherwise cause delay. Mechanisms also exist to withhold these designations where they are not "determinable" or otherwise "prudent." That nearly 80% of all species listed do not have critical habitat designations is a cause for concern.

Survival Habitat

The question has been raised whether critical habitat should be determined at the time of listing or whether it should be deferred to the time of recovery planning. The advantages of early designation include the provision of some "early warning" to all parties, and in particular, the affected federal agencies, that such areas are to be treated with particular caution. Designated habitat is protected by a more objective standard ("no adverse modification") than that provided for threats to species ("no likelihood of jeopardy") in that adverse habitat modifications are more amenable to objective measurement and quantification than are the many factors that might contribute to jeopardizing the survival of a species. The standard of habitat protection provides an important point of focus for those outside of government, including the scientific community, to help protect areas at least until recovery plans are developed that will clarify the needs of endangered species and provide more fully for their recovery. Importantly, critical habitat designation can be beneficial to other listed and nonlisted species living in the designated area, especially for those species for which satisfactory long-term recovery plans have not been implemented.

The committee recognizes that because of public concern over economic consequences, the designation of critical habitat is often controversial and arduous, delaying or preventing the protection it was intended to afford. Because critical habitat plays such an important biological role in endangered species survival, we believe that some core amount of essential habitat should be designated at the time of listing and should be identified without reference to economic impact. We recognize, however, that economic review may need to remain linked to critical habitat determination in the ESA, and that determination of areas essential to the recovery of a species, including areas not currently occupied by that species, can be espe