



Ecosystems, Interest Groups, and the Endangered Species Act

by Amy W. Ando

How science is used to design habitat protection plans may determine the success of a more “multispecies” approach to wildlife conservation. Research shows that the public is likely to influence development of such plans—which may be beneficial as long as competing interests have equal voices.

The Endangered Species Act stands as the most ambitious piece of species-protection legislation ever enacted by a single nation. It is also highly controversial, pitting conservation advocates against those who own or use the land and water on which rare species depend for their survival. Passed in 1973, the act’s authorization expired at the end of fiscal year 1992. Since then, Congress has entertained many reauthorization bills, but none has managed to pass both houses and be signed into law. Instead, the act has had to limp along at the mercy of appropriations committees for its budget and on the occasional court decision for its refinements.

Conservationists argue that the act has many weaknesses and, in particular, that the status quo provides inadequate protection for the vast majority of endangered species on private property. They view a strengthened act as urgently needed. The impasse over reenactment, they believe, imperils species that are not making progress toward recovery even when they are

protected under the law as “threatened” or “endangered.” On the other hand, those who stand to incur costs are concerned about the impact of species protection on private property. If there is to be any reincarnation of the act, they want assurances that it will do more than the current law to take into account the costs of the limits the act has put on the way they use their land.

When Congress recessed late this past fall, it left behind some evidence that its members are working not only to end the five-year hiatus but to break the impasse over how the act should be crafted in the future. The Senate Environment and Public Works Committee passed a reauthorization bill, S.R. 1180, while the House considered an analogous piece of legislation, H.R. 2351, which did not make it out of committee.

These bills do not appeal to the same coalitions in the endangered-species political arena. For reasons not within the scope of this article, the House

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bill is favored by environmental groups, while the Senate bill has greater support from developers and industry. They are not, however, completely different. Among other things, both bills contain elements of a “multispecies” approach to protection and recovery.

In this way, the Senate and (to a lesser extent) the House bill reflect a growing perception that it makes more sense to think of species as parts of ecosystems rather than as isolated entities. Indeed, the existing processes of designating critical habitat and designing recovery plans for threatened or endangered wildlife often have evolved into multispecies processes, acknowledging the overlap and interdependencies among species that share habitat. The multispecies approach to conservation has received much recent attention, due in part to the large-scale habitat conservation plans currently being developed and executed in many parts of the country. These plans seek to accommodate both conservation and development interests on private land, despite the fact that the current law has no real guidelines for how to design and assess such plans.

Economies of Scale

How does a multispecies approach compare with a species-by-species approach in the process of identifying and listing vertebrates, invertebrates, and plants that are in danger of becoming extinct? Research implies that there may be economies of scale in species protection—it may cost less to protect a number of species together in naturally-occurring groups than to protect the same number of species as scattered, disjoint entities.

I have conducted analyses of the time that passes between the proposed and final addition of species to the list of those that are protected under the act. Species are sometimes proposed in groups, often because they come from similar ecosystems and regions. My analyses indicate that such multispecies packages take no longer to be listed than single species; administrative economies of scale appear to exist to processing them as a group. This advantage is of some significance, given the limits on the budgets of the Fish and Wildlife Service and National Marine Fisheries Service, the two agencies that administer the act.

Second, an analysis of interest-group pressure in response to listing proposals shows that multispecies proposals have attracted no more or less opposition than single-species proposals. This implies that physical economies of scale exist in terms of the cost to society of species protection. Furthermore, proposals in regions with a high density of previously listed species per acre tend to attract relatively less support. This response may occur because protecting one species in a given area extends protection to its neighbors, or because some groups care about preserving the underlying habitat rather than the particular species that live on it.

Third, analysis of the geographic distribution of endangered species in the United States conducted by other researchers has revealed substantial areas of overlapping ranges, highlighting the potential for economies of scale in protecting species in those areas.

Yet some risks may be involved in the multispecies approach, too. The current Endangered Species Act has, for all its flaws, been a safety net for each individual threatened species. Some conservation advocates worry that in the shift toward multispecies conservation plans, individual species may fall through the net. For example, habitat protection requirements based on scientific knowledge of the needs of a few high-profile “indicator

species” may not be adequate to protect other less well-known species that inhabit the same region.

In addition, the bills before the House and Senate have different provisions for public participation in the processes of developing conservation plans. Conservation advocates worry that the provisions currently found in the Senate bill will allow industry and developers to skew the use of science in the development of habitat conservation plans away from the interests of species and those who would protect them.

Impact of the Public

Will public participation have the effect critics worry it will? If history serves as any guide, interest groups on both sides of the issue have the potential to influence the formation of conservation plans. Analyses that I have conducted of proposals to add species to the endangered species list show that public comments during the listing process inject considerations of costs and benefits even where the law expressly prohibits them (see *Resources* 128, Summer 1997).

Using data on nonmarine species that were in the listing process from 1989 to 1994, I analyzed the factors that influence how long it takes a given species to progress through relatively advanced stages of the process. That study looks at the time it takes a species to be officially listed once the Fish and Wildlife Service has placed a proposal in the *Federal Register* to list it. It also analyzes the delay that species experience while they wait to be proposed. This pre-proposal stage is called “Category 1,” and contains species that the service feels certain it can propose for inclusion on the list as soon as resources become available.

The analyses that I conducted show that interest groups play a sizable role in how long species take to be placed on the list. Species that enter the process through a petition, which carries with it support from the petitioner as well as scientific evidence to help the agency prepare the case, spend fourteen fewer months in Category 1 than do species that enter the process from within the agency. Once species have been proposed, hearing requests from opponents add six weeks (a 12 percent addition) to the proposal period, and opposing comments can add over thirteen weeks (a 26 percent addition) to the wait. On the other hand, supporting comments can reduce the delay by even more.

Delay postpones the costs (species and their habitats are not protected until a listing is final) and reduces the benefits (the population may decline, making ultimate recovery more difficult) of a given listing. Thus, these results imply that interest groups can influence at least one aspect of agency behavior that has real welfare effects—both for species and for stakeholders.

A separate analysis of the determinants of the intensity of interest-group pressure reveals that these groups respond to circumstances rather than purely to ideology; support is stronger for listings that have higher perceived benefits, and opposition is heightened when the potential costs are large because much land will be subject to new restrictions on use. Of course, the public comment process is not equivalent to that of a pure cost-benefit analysis. Pressure from both sides may still be affected by factors such as political ideology. Nonetheless, interest-group pressure from petitions, hearings, and comments prevents the listing process from being devoid of economic balance.

So, yes, based on empirical evidence to date, it does seem that public participation will shape the processes that design multispecies conservation plans and influence the balances of the final outcomes between competing interests. However, as long as the law includes something like the House provision that economic and conservation interests must be given equal access to the process, that balance may not be a bad thing. The benefits of exploiting the economies of scale in species conservation may be large enough to warrant codification of the multispecies approach in the reauthorized Endangered Species Act, despite the risks.

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Further Reading

Ando, Amy W. “Delay on the Path to the Endangered Species List: Do Costs and Benefits Matter?” RFF Discussion Paper 97-43.

Ando, Amy W. “Interest-Group Behavior and the Endangered Species Act,” RFF Discussion Paper 97-44.

Dobson, A. P., J. P. Rodriguez, W. M. Roberts, D. S. Wilcove. “Geographic Distribution of Endangered Species in the United States,” *Science* 275 (1/24/97): 550–553.