EVOLUTION AND APPLICATION OF CRITICAL HABITAT UNDER THE ENDANGERED SPECIES ACT

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INTRODUCTION

In an era when the rate of extinction approaches one species per day,¹ the Endangered Species Act ("ESA")² serves as a critical counterbalance to the most important threats against species: environmental degradation, habitat destruction, and collection. The ESA embodies America’s commitment to protect wildlife by mandating the dedication of resources and the tempering of development. The ultimate success of the ESA rests, however, in the enforcement of its prohibitions. This Article examines the historical development of the ESA’s most controversial and influential enforcement tool: critical habitat designation and protection.

“Critical habitat” is a legally designated geographic area crucial to the continued viability of an endangered species. Section 7 of the ESA seeks to prohibit federal actions which adversely modify these vital areas. In the ESA as enacted in 1973, Congress intended critical habitat to be simply one of a group of enforcement tools. However, the strength of its prohibitive power captured national attention in 1978, making the snail darter and Tellico Dam household names³ and endangering the ESA itself. Despite legislative attempts to restrict the power of critical habitat designations, its endemic protections have influenced other, distinct prohibitions of the ESA. These include the section 7 prohibition against jeopardizing a species’s existence and the section 9 prohibition against taking an endangered species. As a result, the designation of critical habitat has become a particularly useful enforcement tool.

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¹ N. Myers, The Sinking Ark 31 (1980).
Although critical habitat is among the strongest enforcement provisions of the ESA, critical habitats are never designated for four of five endangered species. In some cases, a decision not to designate critical habitat may benefit endangered species because designation might publicize their locations to collectors and vandals. However, a broad review of designation decisions indicates that often the influence of unspoken political, bureaucratic, and economic pressures has denied a number of species proper protection.

Part I of this Article traces the legislative history of the ESA of 1973 and subsequent statutory attempts to restrict the power of critical habitat designation. Part II analyzes judicial interpretation of section 7, demonstrating the expansion of critical habitat protections into other, separate protections of the ESA. Part III examines the designation process and explores the reasons so few species receive critical habitat designation. The Conclusion explores reforms necessary to preserve the viability of critical habitat designations.

I. STATUTORY HISTORY OF THE ENDANGERED SPECIES ACT

The environmental movement of the late 1960's and early 1970's swept in an era of federal environmental protection.\(^4\) Two laws from this era, the Endangered Species Preservation Act of 1966\(^5\) and the Endangered Species Conservation Act of 1969,\(^6\) afforded wildlife some protection, but neither of these laws prohibited the taking of endangered species nor mandated that all federal agencies act to preserve endangered species. Only species threatened with worldwide extinction qualified as endangered under these statutes. Nationally, only a patchwork of protections for endangered species existed. Indeed, it was legal in some states to

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kill animals listed as endangered. Dissatisfaction with this ineffective protection, coupled with growing recognition of the role of humans in extinctions, catalyzed statutory reform.

A. The Endangered Species Act of 1973

In 1973, spurred by an increase in environmentalism and by general dissatisfaction with existing wildlife protection laws, Congress enacted the most comprehensive species protection program ever. The Endangered Species Act of 1973 ("ESA of 1973") passed unanimously in the Senate and with only four dissenting votes in the House. The goals of the bill were laudable and the rhetoric lofty. The House Report of the ESA of 1973 stated that the loss of species threatened our genetic heritage, concluding, "the value of this genetic heritage is, quite literally, incalculable." The ESA of 1973 gave endangered species special legal status in hopes of reversing these species' decline toward extinction, requiring federal departments and agencies to conserve the species and to use

8. Congressional comments at an endangered species hearing in 1972 reflected these sentiments and acknowledged the need for remedial action:

The development of the land, it became clear, was slowly whittling down the nesting and breeding grounds on which many species depend. Environmental pollution was weakening the capacity of some species to generate their own kind. Commercial exploitation, whether through thoughtlessness, ignorance, or greed, was reducing certain animal populations to the danger level. Species which had survived for thousands and thousands of years were suddenly in danger.

their respective authorities in furtherance of species preservation.\textsuperscript{12}

The most important enforcement goal of the ESA of 1973 was to reduce the commercial traffic in endangered species. Import, export and transportation restrictions implemented enforcement at the ports,\textsuperscript{13} and other provisions took enforcement to the field. Section 9 prohibits anyone subject to United States jurisdiction from “taking” a listed species.\textsuperscript{14} “Take” is defined as to harass, harm, pursue, shoot, collect or kill protected species.\textsuperscript{15} The restrictions apply to both public and private actors.\textsuperscript{16}

Under the ESA of 1973, the Secretary of the Interior or the Secretary of Commerce may list a species as endangered or threatened.\textsuperscript{17} The decision to list the species rests on biological and commercial, but not economic, factors.\textsuperscript{18} Once a species has been listed, it gains the protection of the ESA. The ESA provides not only for the maintenance of endangered species but also for their recovery, with the goal of effectuating their removal from the list of endangered species. The ESA of 1973 attempted to promote conservation through single-species protection and thus adopted the broad strategy of protecting both the species \textit{and} its local environment.\textsuperscript{19} During the ESA hearings, speaker after speaker emphasized the importance of habitat in efforts to protect and restore species.\textsuperscript{20} Section 5 of the Act responded to these concerns

\textsuperscript{12} 16 U.S.C. § 1531(c) (1988).
\textsuperscript{13} Id. § 1538(d).
\textsuperscript{14} Id. § 1533(a)(1)(C). This section also provides for criminal sanctions. Id. § 1540.
\textsuperscript{15} Id. § 1532(19).
\textsuperscript{16} Id. § 1533(a)(1). Legislators understood that enforcing the broad prohibitions of section 9 posed significant personnel problems. In fiscal year 1973, the federal government employed only 158 enforcement agents under the endangered species program, most of whom were located at ports to interdict illegal trade in endangered species. \textit{Endangered Species Act of 1973: Conference Report on S. 1983, H.R. Conf. Rep. No. 740, 93d Cong., 1st Sess. 4 (1973).}
\textsuperscript{17} See 16 U.S.C. §§ 1532(15), 1533(a)(2). Depending on the species, the authority for administration of the ESA is vested in the United States Fish and Wildlife Service of the Department of the Interior or in the National Marine Fisheries Service of the Department of Commerce.
\textsuperscript{18} Id. § 1533(b)(1). The Secretary of the Interior or of Commerce must consider the present or threatened destruction of the species’ habitat, the species’ commercial overutilization, disease or predation affecting the species, the adequacy of existing protections, and other natural or man-made factors. Id. § 1533(a)(1)(A)–(E).
\textsuperscript{19} The definition of conservation is codified as “the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary.” Id. § 1532(3).
\textsuperscript{20} See, e.g., 1973 House ESA Hearings, supra note 7, at 241 ("While legal protection
by providing for government habitat acquisition. However, section 5 does not entirely address the habitat protection issues raised during the hearings. As a Department of Agriculture representative concluded: "Fundamental to the survival of any species, habitat describes the food and shelter requirements which enable species to reproduce and sustain viable populations; frequently these requirements are quite specific." Section 7 of the ESA embodied the belief that a discrete habitat, a "critical habitat," could be identified and protected for each listed species.

Section 7 was not viewed as a central part of the ESA of 1973. Only two sentences long, the provision required all federal agencies, in consultation with the Secretary of the Interior or of Commerce, to take "such action necessary to insure that actions authorized, funded, or carried out by them do not jeopardize the continued existence of such endangered species or result in the destruction or modification of habitat of such species which is determined by the Secretary . . . to be critical." Thus, section 7's protections were dual: agency actions could neither "jeopardize" the existence of the species nor "adversely modify" its designated critical habitat. The legislative history nowhere defines critical habitat beyond its mention in section 7, nor does it stipulate procedural steps for designation. Thus, "critical habitat" has legal significance only within the scope of Section 7. It controls only federal actions; solely private and state actions affecting critical habitat are immune from section 7's prohibitions.

In assessing whether their actions implicate section 7, federal agencies must consult with the United States Fish and Wildlife Service ("USFWS") or the National Marine Fisheries Service ("NMFS"). In response, the service consulted will issue an opinion on the proposed action's potential effect on endangered species,

and law enforcement are needed, the maintenance of suitable habitat is vital to the restoration of threatened wildlife."") (statement of A. Gene Gazlay, Director, Michigan Department of Natural Resources); id. at 301 ("It is ultimately immaterial whether or not an animal is deliberately molested if its habitat is not preserved.") (statement of Thomas Garrett, Friends of the Earth).

21. Id. at 236 (statement of Raymond Housley, Associate Deputy Chief for National Forest System). Describing USDA's efforts, Housley stated that, in 1972, "320,000 acres of national forest system lands had been placed under special designation for the protection and enhancement of rare and endangered species. An additional 3,023,000 acres were being maintained for rare and endangered species in conjunction with and coordination with other resource management, such as timber management." Id. at 328.

but it remains the agency’s decision whether to proceed with the action.\textsuperscript{23} If the agency acts contrary to the advice in the service’s opinion, it may become the target of a citizen suit charging a section 7 violation.\textsuperscript{24}

Hindsight reveals the potentially absolute power section 7 wields over federal projects, but Congress was oblivious to this consideration when passing the ESA in 1973. The committee reports of the ESA lack any explanation of how section 7 was to be interpreted, and no industry representatives testified on this subject at the committee hearings. Instead, the political debate at the hearings had focused on federal-state sovereignty and on illegal trade in endangered species. Just four years later, section 7 drew the nation’s attention back to the ESA.

\textbf{B. The ESA Reconsidered}

Senator Culver: Who plays God the second time around?

Mr. Hart: That is a very good question, and one I am not able to answer, but I think it should be addressed and should be thought about without going to the efforts to protect everything.

\textsuperscript{23} The interagency consultation procedures require an agency to confer with USFWS on any proposed action likely to violate section 7 by either jeopardizing a listed species or adversely modifying its critical habitat. 50 C.F.R. § 402.10(a) (1989). The first step in the process is an informal consultation with USFWS’s Office of Endangered Species, which may be a telephone call. If the Office determines that the proposed action is not likely to violate section 7, the process is terminated. Id. § 402.13(a). Otherwise, a biological assessment must be prepared to evaluate the potential effects of the action on listed and proposed species and on designated and proposed critical habitats. If this closer analysis does not implicate section 7, the process is terminated. Id. § 402.12(k). Formal consultation, the last step in the procedure, requires USFWS to write an opinion on whether the cumulative biological effects of the proposed action will result in a section 7 violation. If it will, the Service issues a “jeopardy biological opinion.” If not, a “no jeopardy” opinion is issued. Id. § 402.14.


Citizens’ suits are brought under section 10 of the ESA. Any person may commence a civil suit to enjoin the actions of a person, the government, or an agent of the government alleged to be in violation of the ESA. Federal district courts have jurisdiction, and the United States Attorney General, at the request of the Secretary of the Interior or of Commerce, may intervene on behalf of the federal government as a matter of right. 16 U.S.C. § 1540(g).
I don’t think it is feasible to protect everything. The act, as it is written, has no end . . . .

Senator Culver: Given the scientific complexity and number of elements that would have to be factored in such an intellectual undertaking it seems to me that such a decision would just defy the imagination.

Mr. Hart: Yes.25

By 1977, the Tellico Dam in Tennessee was over seventy-five percent complete, with more than $103 million spent toward its construction. If the dam were to open its floodgates, however, it would destroy the designated critical habitat of an endangered perch, the snail darter. Despite the nearness to completion and the money already spent, environmental groups suing under section 7 of the ESA successfully enjoined further construction of the dam. The Supreme Court agreed to hear the case in Tennessee Valley Authority v. Hill26 and ultimately upheld the circuit court’s decision to enjoin the construction.27 The Court stated that section 7 imposed absolute duties on federal agencies not to jeopardize species or modify their critical habitats. Addressing the political consequences of the decision, Chief Justice Burger stated that:

[It might seem curious to some that the survival of a relatively small number of three-inch fish . . . would require the permanent halting of a virtually completed dam for which Congress has expended more than $100 million . . . . We conclude, however, that the explicit provisions of the Endangered Species Act require precisely that result.28

This “curious” result halted construction on the dam, triggered hearings on Capitol Hill, and evoked public cries to amend the ESA. No one had opposed the ESA during the 1973 hearings. However, fear of halting federal projects in order to protect obscure organisms with strange names polarized the 1978 ESA

25. 1978 Senate ESA Hearings, supra note 24, at 39 (statement of C.W. Hart, Jr., Assistant to Director, Museum of Natural History, Smithsonian Institution, referring to the final decision regarding whether species shall be allowed to become extinct).
28. Id. at 172–73.
amendment hearings that followed TVA v. Hill. The "incalculable genetic heritage" placed beyond valuation just four years earlier was now up for auction in the Merchant Marine and Fisheries Committee of the House. In particular, the role of critical habitat within the ESA was carefully evaluated for the first time.29

At the time of the 1978 hearings, agencies at least superficially appeared to be following the section 7 guidelines. Various agencies had consulted the USFWS over 4500 times.30 As of August 1978, however, the Service had designated few critical habitats.31 Less than thirteen percent of the 269 newly listed species had received critical habitat designation.32 In the four and one-half years following the passage of the ESA, only three section 7 cases had been litigated.33 Despite the relatively infrequent designation of critical habitats and the minimal amount of litigation those designations had generated, at the 1978 reauthorization hearings, some western states and industry representatives voiced their opposition to the ESA. The primary criticisms focused on the absolute nature of section 7.34

Predicting that the ESA might be gutted entirely unless it were amended, Senator Jake Garn and other ESA supporters proposed

29. Although opponents contended that amending section 7 would change the intent of the ESA, there was no debate on the merits of critical habitat in the 1973 hearings.
30. 1978 Senate ESA Hearings, supra note 24, at 18.
32. 1978 Senate ESA Hearings, supra note 24, at 17 (statement of Lynn Greenwall, Director, United States Fish and Wildlife Service).
34. Senator Jake Garn of Utah testified:

[T]he fact is that there are enough obscure species of plants and animals to guarantee that nothing at all will happen in this country if no endangered species is ever to be disturbed in its corner of the environment. I do not believe the Congress intended that situation when it passed the act, and I do not believe the American people will permit that situation to continue.

1978 Senate ESA Hearings, supra note 24, at 45. Ival Goslin, Director of the Upper Colorado River Commission, expressed his outrage more bluntly: "It appears ridiculous to the point of perversity, and completely unreasonable to believe that the human race—especially Americans—would permit a system to exist in which a snail darter in Tennessee becomes more important than the enhancement of man's welfare." Id. at 149.
introducing cost-benefit analysis in section 7 decisions. Some agency decisions already incorporated a cost-benefit analysis in implementing the ESA. Nonetheless, some legislators and industrialists desired codification of the cost-benefit analysis within the ESA.

Those advocating modification of the ESA also levelled charges at environmental groups' use of the ESA. Senator Garn contended that "much of the use of the Endangered Species Act by various environmental groups has been very cynical. It has been based less on a desire to protect the furbish lousewort than on a desire to stop the Dickey-Lincoln project." The delays in designation decisions also drew criticism. USFWS officially estimated a wait of 255 days to designate critical habitats, but in practice designation took much longer. Of the thirty-three critical habitats designated prior to 1978, fewer than half were designated at the time of listing. The others averaged two years between listing and designation. These delays frustrated both government and private actors relying on federal permits. As the Pacific Legal Foundation noted:

[T]he failure to reach a conclusion as to the critical habitat is seriously injuring property values. . . . [P]ersons owning prop-

35. The National Forest Products Association concluded: "There must be some balancing of priorities among the many goals set for natural resources, of which preserving endangered species is only one." Id. at 260 (statement of John Hall, Vice President, Resources and Environment, National Forest Products Association). In fact, other environmental legislation such as the Clean Air Act and the National Environmental Policy Act take economic factors into account. Critics of the ESA relied on a host of arguments, some biblical: "The Earth is the Lord's and the creatures thereon. Each shall fulfill his appointed time and place. . . . [Section 7] would prohibit any development and may even require a set-aside, such as wilderness and even require propagation even though the species has served its appointed time." Id. at 48-49 (statement of Dan S. Budd, Assistant Wyoming Commissioner, Upper Colorado River Commission).

36. During the House hearings, it was alleged that the USFWS had refused to list as endangered two species of insects whose habitats would pose a conflict with operation of the New Melones Dam in California. The USFWS, the Committee Report asserted, "has allegedly omitted these species from the list for fear of provoking the Congress into major revisions of the Endangered Species Act." 1978 House ESA Amendments Report, supra note 31, at 13.

37. See 1978 Senate ESA Hearings, supra note 24, at 45 (statement of Senator Garn). This charge is still made today. Dr. David Wilcove of the Wilderness Society reports that some people have criticized conservation groups for using the threatened status of the northern spotted owl to protect old-growth forests in the Northwest. He considers these charges to be unfair. Interview with Dr. David Wilcove, Senior Ecologist, the Wilderness Society, in Washington, D.C. (Nov. 12, 1988).

38. S. YAFFEE, supra note 31, at 63. Forty-five percent of the critical habitats had been designated at the time of listing.

39. 1978 Senate ESA Hearings, supra note 24, at 65 (statement of W. Samuel Tucker, Manager, Environmental Staff, Florida Power & Light Co.).
erty are fearful to commit funds to its improvement for fear that they will find themselves in the Tellico-like situation of being unable to get use permits for completed projects. No one is willing to buy the property until the problem is resolved.40

A state representative asked that the amendments provide a mechanism to enable states to contribute meaningfully to the listing decisions and critical habitat designations—participation which he felt was lacking under the 1973 ESA regulatory framework.41

C. The 1978 ESA Amendments

The 1978 ESA amendments responded to these concerns, keeping the section 7 language intact but restricting the designation and enforcement of critical habitat. Congress backed off its earlier goal of reversing the trend toward species extinction regardless of cost.42 The amendments defined critical habitat as "(i) the specific areas within the geographical area occupied by the species, at the time it is listed . . . on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection."43 This first statutory definition did not indicate explicitly that a designation of critical habitat included a protected species's entire range.44 The amendments also directed the Secretary consulted to consider the economic impact of determining critical habitat and to "exclude any area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying the area as part of the critical habitat, unless he determines . . . that the failure to designate such area as critical habitat will result in the extinction of the species."45 This cost-benefit requirement changed the designation process from a purely biological assessment to a social policy decision.

40. Id. at 250 (statement of Donald Simpson, Pacific Legal Foundation).
41. Id. at 36 (statement of Senator Wallop). During the hearings, concerns that businesses and communities lacked the opportunity to contribute meaningfully to the listing and designation decisions were aired by such groups as the American Mining Congress, id. at 356, and the National Forest Products Association. Id. at 258.
42. 1978 House ESA Amendments Report, supra note 31, at 18.
43. 16 U.S.C. § 1532(5)(A)(i) (1988). Areas outside the range of the species at the time of listing may also be designated as critical habitat if the Secretary determines that such areas are essential for the conservation of the species. Id. § 1532(5)(A)(ii).
To head off future Tellico Dams, the amendments required USFWS or NMFS to issue a formal biological opinion if federal agency action might affect a listed species. Additionally, the amendments strengthened notice procedures for listing proposals and required public hearings in areas affected by a designation of critical habitat. As a final impetus, if the critical habitat designation process were not completed within two years of the proposal, the species was withdrawn from consideration for endangered species listing.

In addition to these restrictions, the new law gave the Secretary discretion to refrain from designating critical habitat for a species if such designation were not “prudent,” for example, because a designation would expose the species to the threat of takings or because the habitat was not determinable. The final measure taken to prevent future Tellico Dams provided that once critical habitat had been designated, an agency could override section 7 by appealing to the newly-formed Endangered Species Committee for an exemption. The Endangered Species Committee, also known as the “God Committee,” may grant an exemption from the requirements of section 7 if it determines that (1) there are no reasonable or prudent alternatives to the proposed action, (2) the action is in the public interest and its benefits outweigh the costs of preserving the species, and (3) the action is of regional or national significance.

D. The Effect of the 1978 ESA Amendments

Despite retaining the jeopardy and critical habitat protections of section 7, the 1978 amendments ravaged the listing process.

47. 1978 House ESA Amendments Report, supra note 31, at 14. The current regulations require notice but do not mandate a hearing. Any person may request a hearing. 50 C.F.R. § 424.16.
48. 50 C.F.R. § 424.17.
49. The Endangered Species Committee reviewed the Tellico Dam issue and decided not to override the ESA. Soon after, however, a rider was placed on a House appropriation bill ordering the completion of the dam. On November 11, 1979, the valley was flooded. See Plater, In the Wake of the Snail Darter: An Environmental Paradigm and Its Consequences, 19 U. Mich. J.L. Ref. 805, 812–14 (1986). For a thorough discussion of section 7's history through 1979, see Erdheim, The Wake of the Snail Darter: Insuring the Effectiveness of Section 7 of the Endangered Species Act, 9 Ecology L.Q. 629 passim (1981) and S. YAFFEE, supra note 31, passim.
Instead of first deciding which species were in danger of extinction and next assessing the proper amount of protection, the new legislation made these two steps simultaneous. By preventing listing of a species without concurrent designation of its critical habitat and by demanding for designation a cost-benefit analysis, the regulations converted the judgment whether a species were endangered from a biological to an economic one. Moreover, the two year deadline for the listing and designation process proved too short for the burdensome economic analysis. In November 1978, when the amendments were enacted, there were more than 2000 published formal listing proposals. Three and a half years later, fewer than five percent of these species had been listed, and critical habitats had been designated for less than one percent of them. The remainder were withdrawn because the new deadlines rendered listing and designation impracticable.\footnote{M. Bean, The Evolution of National Wildlife Law 335 (1983); see also 1982 Endangered Species Act: Hearings Before the Subcomm. on Fisheries and Wildlife Conservation and the Environment of the House Comm. on Merchant Marine and Fisheries, 97th Cong., 2d Sess. 159 [hereinafter 1982 House ESA Hearings] (statement of Michael J. Bean, Chairman, Wildlife Program, Environmental Defense Fund, on behalf of 17 environmental organizations, including the National Audubon Society, the National Resources Defense Council, Defenders of Wildlife, and World Wildlife Fund); id. at 175 (statement of William Blair, President, Nature Conservancy).}

The first years of the Reagan administration compounded this problem. Secretary of the Interior James Watt opposed new listings of species so strongly that the Director of the USFWS Office of Endangered Species wrote in a memorandum to his superior that actions within the Department of the Interior to block new listings raised "serious questions of legitimate policy decisions being precluded, circumvented, or subordinated by pseudo-legalistic ploys used as excuses for delay."\footnote{This memorandum was written in December 1981. 1982 House ESA Hearings, supra note 51, at 181 (statement of John Spinks, Director, Office of Endangered Species, United States Fish and Wildlife Service). Secretary Watt also displayed his opposition by postponing official action on rules which had already been published in final form when the Reagan administration commenced in January 1981. The rules, listing as endangered three plant species and an invertebrate genus, were to take legal effect in February 1981. The Department of the Interior suspended the official listing of these species until July, when the Environmental Defense Fund threatened suit. Id. at 159 (statement of Michael J. Bean, Chairman, Wildlife Program, Environmental Defense Fund). Indeed, as of February 1982, the Reagan administration could take credit for the listing of only one species not previously proposed, a crustacean whose sole known habitat was on property in the National Zoo. Only the National Park Service and the Smithsonian Institute commented on the listing and neither opposed it. Id. As Bean succinctly commented:}
suit political purposes or required to perform analysis of the economic effects of critical habitat designation, the delays in listing denied many endangered species ESA protection because their deadlines had passed.

The 1982 amendments to the ESA addressed these problems by permitting a final listing decision even without critical habitat designation.33 This change meant that species could be listed even though the cost-benefit analysis for their critical habitats had not been completed; and, it kept species on the endangered or threatened list even if, after two years, no critical habitat had been designated. Emphasizing that economic analysis applied only to critical habitat determination, the amendments required the Secretary of the department consulted to make listing decisions "solely" on the basis of biological considerations.34

II. JUDICIAL INTERPRETATION OF CRITICAL HABITAT

Over time, Congress has weakened critical habitat by conditioning its designation on economic considerations, prudence, and determinability. Nonetheless, it has remained a useful enforcement tool in court. Strangely, however, critical habitat has not been used as an independent protection but instead has been employed to give force to other ESA protections. Courts have increasingly found jeopardy violations under section 7 or taking violations under section 9 when challenged governmental activities are located in critical habitats. In this way, although only implicating federal actions in designated areas, critical habitat has expanded to affect other, separate ESA protections.

33. Under the 1982 amendments, critical habitat must still be designated within two years. Designation may be denied because it would not be prudent or because critical habitat is not determinable. 16 U.S.C. § 1533(b)(6).
34. Id. § 1533(b)(1)(A).
A. Critical Habitat and Jeopardy

As discussed earlier, section 7 contains two separate prohibitions: jeopardizing the existence of species and adversely modifying critical habitats. In practice, however, adverse modification has merged into jeopardy analysis, ceasing to be an independent protection. That is, when a court finds an adverse modification violation, it necessarily also finds a jeopardy violation. This symbiosis between jeopardy and critical habitat is manifest in some of the seminal ESA cases. In *National Wildlife Federation v. Coleman*, the Department of Transportation had proposed a highway to run adjacent to the critical habitat of the Mississippi sandhill crane. The court held that private development resulting from the highway’s construction might adversely affect the habitat and jeopardize the continued existence of the species. Because the Department had failed to fulfill section 7’s requirement of “insuring” that critical habitat would not be modified adversely, the project was enjoined until the Department could buy the adjoining land or until the Secretary of the Interior determined the crane population was safe. The court stated that section 7 did not give the Department of the Interior “a veto over the actions of other federal agencies.” But, given the court’s order enjoining construction until the Secretary of the Interior deemed there was neither jeopardy to the cranes nor threat to their critical habitat, Interior’s biological assessment proved a veto by another name. A similarly strict reading of section 7 in *TVA v. Hill* also triggered a finding of violation of both the jeopardy and critical habitat prohibitions.

In *Sierra Club v. Froehlke*, plaintiffs claimed that an Army Corps of Engineers dam project would flood several caves inhabited by the endangered Indiana bat. Although a formal jeopardy opinion had not been issued, the Secretary of the Interior urged the Corps to halt construction until studies were completed.

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55. 529 F.2d 359 (5th Cir.), cert. denied, 429 U.S. 979 (1976).
56.  Id. at 373–74.
57.  Id. at 371.
58.  See also *Romero-Barcelo v. Brown*, 643 F.2d 835 (1st Cir. 1981) (Navy enjoined under section 7 from naval training operations until after consultation with and biological assessment by USFWS).
59.  534 F.2d 1289 (8th Cir. 1976).
60.  Id. at 1305.
Department of the Interior had not designated a critical habitat for the bat, and the court regarded this omission as important:

It is significant that the Secretary of the Interior has the power under the act to designate a critical habitat for an endangered species immediately upon publication of the regulation in the Federal Register without the 60-day period necessary for normal rulemaking . . . . The Secretary chose to exercise his power in the case of the Mississippi sandhill crane . . . . No such power has been invoked with regard to the Indiana bat and the Meramec Lake Park Project.61

It was undisputed at trial that flooding the caves would kill some of the endangered bats.62 Absent critical habitat designation or further data, however, the court rejected the argument that construction of the dam would "jeopardize" the bats' existence, arguing that the alleged effect was insufficiently conclusive to trigger section 7. The court's treatment of critical habitat designation suggests that the decision might have been different had the caves been designated as a critical habitat, for it was clearly far more difficult to reach the jeopardy standard without the loss of critical habitat.

This judicial interplay of critical habitat and jeopardy is again evident in Nebraska v. Rural Electrification Administration.63 In this case, the court enjoined construction on the Grayrocks Dam and Reservoir in Wyoming, holding that the Rural Electrification Administration ("REA") had failed to insure that there would be no jeopardy to the whooping crane. Plaintiffs had charged under section 7 that the dam might reduce the flow of the Platte River, thus damaging the crane's critical habitat many miles downstream. Given the uncertainty of the dam's biological effects, the court held the agency to the high standard of insuring no jeopardy to the species. The opinion consistently joins the critical habitat and jeopardy analyses. For example, the judge analyzes "whether the Project was or was not likely to jeopardize the continued existence of or destroy or adversely modify the critical habitat of the spe-

61. Id. at 1302 (referring to National Wildlife Fed'n v. Coleman, 529 F.2d 359 (5th Cir. 1976)).
62. Whether that meant 200 dead, as the appellate court concluded, or 5000 dead out of a population of 700,000 was disputed at trial. Annotation, Validity, Construction, and Application of the Endangered Species Act of 1973, 32 A.L.R. Fed. 332, 359 (1977).
cies," and "whether REA has taken such actions as are necessary to insure that the Project will not jeopardize the whooping crane or its habitat." The statutorily separate analyses of jeopardy and adverse modification of critical habitat are coupled over thirteen times throughout the opinion.

In fact, this synthesis of critical habitat and jeopardy is found throughout section 7 case law, for there appear to be no successful section 7 cases finding adverse modification of critical habitat without also finding jeopardy. The two section 7 protections have collapsed into a unified prohibition primarily because the two standards are redundant. Michael J. Bean, Chairman of the Wildlife Program at the Environmental Defense Fund, argues that "the adverse modification of any area that is in fact essential to the conservation of a listed species (whether it has been designated critical habitat or not) will also necessarily jeopardize the continued existence of that species." In fact, the regulatory definitions of these two standards both prohibit actions that appreciably diminish or reduce the likelihood of the survival and recovery of a listed species. Of the two prohibitions, jeopardy encompasses more than critical habitat, for it follows the species wherever it moves. Thus, although the two section 7 protections are redun-

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64. Id. at 1170.
65. Id. at 1171.
66. Interview with Michael J. Bean, Chairman, Wildlife Program, Environmental Defense Fund, in Washington, D.C. (Feb. 10, 1989). A LEXIS search performed on February 15, 1989, under all federal cases with the phrase, "endangered species act and critical habitat and not jeopardy," did not reveal any successful section 7 actions based solely on critical habitat modification. This database search would not reveal cases where the jeopardy standard was mentioned but deemed inapplicable.
67. M. Bean, supra note 51, at 339. There are circumstances where this argument might be invalid. The California Condor, for instance, still has critical habitat, but federal projects there surely will not jeopardize the condor's existence in the San Diego and Los Angeles zoos (although it may diminish the species' recovery).
68. The jeopardy standard has been defined as "an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." 50 C.F.R. § 402.02 (1989). The adverse modification standard has been defined as, "alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species." Id.
69. For cases in which jeopardy stands alone, see, for example, Roosevelt Campobello Int'l Park Comm'n v. EPA, 684 F.2d 1041 (1st Cir. 1982); Sierra Club v. Marsh, 816 F.2d 1376 (9th Cir. 1987); and Defenders of Wildlife v. EPA, 688 F. Supp. 1334 (D. Minn. 1988), modified, 882 F.2d 1294 (8th Cir. 1989). For an example of a jeopardy opinion supporting broad-based regulatory actions, see Louisiana v. Verity, 853 F.2d 322 (5th Cir. 1988) (requiring shrimpers to use turtle-excluding devices).
dant, critical habitat has evolved into an important catalyst, a judicial red flag, to jeopardy violations.

B. Critical Habitat and ESA Section 9

A recent series of cases illustrates courts’ continuing tendency to merge critical habitat analysis with other ESA prohibitions. The court has used critical habitat to find takings under section 9, which prohibits the “taking” of listed species. In *Palila v. Hawaii Department of Land and Natural Resources (“Palila I”),* the state of Hawaii was ordered to remove feral goats and sheep from the Mauna Kea game management area. The animals were maintained for sport hunting, but their grazing consumed the shoots and seedlings of mammane trees, preventing the regeneration of the forest. This, in turn, impaired the forest habitat for the palila, an endangered bird in the honeycreeper family.

The Mauna Kea area had been designated critical habitat for the palila, but this designation was legally irrelevant because of the absence of federal lands, funds, or participation. Even though section 7 could not be implicated, the court consistently referred to the “critical habitat” of the Palila. Finding a violation of the ESA through the takings restrictions in section 9, the court concluded that “[d]efendants are violating the Endangered Species Act by maintaining feral sheep and goats in the palila’s critical habitat.” As with the dicta in *Froehlke,* the court emphasized the adverse modification of critical habitat, although it was not legally relevant.

In affirming this decision, the Ninth Circuit agreed that “maintaining feral sheep and goats in the critical habitat is a violation of the Act since it was shown that the Palila was endangered by the

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70. Section 9 also covers import and export of listed species, and unauthorized possession, sale, or transport of listed species. See 16 U.S.C. § 1538(a) (1988).
72. Id. at 499.
73. 50 C.F.R. § 17.95 (1989).
74. Palila I, 471 F. Supp. at 988–89, 992. Designation will limit federal actions in the designated critical habitat but will not inhibit actions by other parties. The designation of a critical habitat in this instance could have no practical effect because no federal actors were involved.
75. Id. at 999.
76. See supra text accompanying notes 59–62.
activity. The court's novel emphasis on critical habitat was significant because section 9 had previously been interpreted as prohibiting only direct abuse of species. The court justified its broad interpretation of section 9 by citing the discussion of habitat destruction in the ESA's legislative history. As it was with jeopardy under section 7, adverse modification seems redundant with the takings regulations. Indeed, the district court cited USFWS regulations defining "harm" under section 9 as "significant environmental modification or degradation." In response to the judicial introduction of critical habitat modification into taking analysis, USFWS promulgated new regulations defining "harm" as habitat modification which "actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering."

These new, more restrictive regulations had no effect, however. Upon retrial, in Palila II, the district court held that Hawaii's maintenance of feral mouflon sheep still constituted a taking under section 9. The judge acknowledged USFWS's use of the word "actually" in the definition of harm, but contended that "[h]abitat destruction that prevents the recovery of the species by affecting essential behavioral patterns causes actual injury to the species and effects a taking under Section 9 of the Act. Not all destructive actions within a critical habitat harm a protected species and thus constitute a taking, the court noted, for,

77. Palila I, 639 F.2d at 497.
78. "Take" was defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." 16 U.S.C. § 1532(19); see also, e.g., California ex rel. Brown v. Watt, 520 F. Supp. 1359, 1387-88 (C.D. Cal. 1981) (denying relief and holding that even if proposed leasing activities constituted a threat to the continued survival of an endangered species, section 9 of the ESA requires more immediate injury), modified 683 F.2d 1254 (9th Cir. 1982), rev'd sub nom. Secretary of the Interior v. California, 464 U.S. 312 (1984).
79. Palila I, 639 F.2d at 498. The court claimed the decision was consistent with the legislative history of the Act, because "the greatest threat to endangered species is the destruction of their natural habitat." Id.
80. Palila I, 471 F. Supp. at 995 (citing 50 C.F.R. § 17.3 (1979)).
83. Id. at 1075.
[1] If the State were to mow the lawn within the Palila’s critical habitat, this modification would not in and of itself result in a taking under Section 9. There would have to be a showing of concomitant injury to Palila, such as a significant impairment of Palila breeding or feeding habits.84

This is true, of course, but equally so for section 7. Thus the same rule applies to federal agents so that only federal actions which appreciably diminish the value of the habitat for species recovery and survival, for example, by significantly impairing the Palila’s breeding or feeding habits, violate section 7’s adverse modification standard. On appeal, the Ninth Circuit upheld the lower court’s ruling that habitat degradation which could result in extinction is a section 9 taking, but declined to “reach the issue of whether harm includes habitat degradation that merely retards recovery.”85

Take this analysis has not become identical to adverse modification, but the similarity of the two standards as applied in the Palila holdings is striking. The strong influence of critical habitat analysis on takings analysis has broad-ranging implications. The Palila case absorbs critical habitat’s adverse modification prohibition into section 9. This strengthens the prohibition by effectively applying section 7 through section 9 to non-federal actions in designated critical habitat. Additionally, the Tenth Circuit, in echoing section 7’s prohibition of adverse modification, but without mention of critical habitat, has interpreted the Palila definition of “harm” to mean that “one who maintains on his own land grazing animals that so modify the natural habitat as to cause indirect injury to endangered species can be required to remove those grazing animals from his land.”86 The court thus effectively extends section 7’s adverse modification prohibition to areas not designated as critical habitat. Similarly, a Texas district court recently found a taking where the rapid decline of the red-cockaded woodpecker population was attributed to the logging practices of the Forest Service in the bird’s habitat.87 The significance of Palila I and II,
then, has been to include less direct harms in the standard for finding a section 9 taking.

C. The Benefits of Critical Habitat

The migration of critical habitat protections into assessments of section 7 jeopardy and section 9 takings has great significance, for it effectively supplants jeopardy and takings analyses of habitat degradation with the easier test of adverse modification. The ESA cases suggest that if an action affects critical habitat, a court will be more likely to find a violation of other provisions of the ESA. This may be attributable to rhetorical power, to the fact that a considerable foundation of information about a species with a critical habitat already exists, or to the increasing redundancy of section 7 and 9 regulatory standards.

Experts in the field of critical habitat protection agree on the importance of critical habitat designation. As Donald Carr, former Acting Assistant Attorney General in the Justice Department’s Land and Natural Resources Division states: “Critical habitat does have advocacy value. It helps the prosecutor by getting rid of the necessity of showing the steps to jeopardy.” The term “critical habitat” also has great rhetorical value for environmental groups outside of the courtroom. Michael Bean of the Environmental Defense Fund remarks: “[I]t’s easier for the Nature Conservancy to raise money if they can say, ‘we’re not just purchasing ordinary habitat, we’re purchasing critical habitat.’

The lack of promulgated habitats also may undermine the effectiveness of section 7 consultations. In 1986, there were 10,504 informal and 421 formal agency consultations with USFWS. The Service found that proposed governmental actions jeopardized the viability of endangered species in 8.3% of formal consultations and


0.7% of all consultations. An informal consultation may be a phone call for which a critical habitat map would be helpful. Because of the sheer number of consultations, the few designated critical habitats, and USFWS’s limited resources, the consultation and mapping processes have been erratic. A study by the Center for Environment Education on EPA’s pesticide registration compliance with section 7 consultation requirements describes the shortcomings of the consultation process:

They studied thirty-six cases where the pesticide use was such that its anticipated effect on listed species should have triggered a consultation. They found twelve [cases] in clear violation of the Act. In six, registration was completed before the consultation; five did not include the steps that the Office of Endangered Species found in consultation to be necessary conditions of registration, nor any other similar precautions; and in one, registration was completed without a consultation being initiated . . .

The general problem is not confined to the EPA. The Service does not appear to have range maps, let alone recovery plans, for listed species in many cases, thus making consultation rather difficult.

In spite of the benefits of critical habitat, however, the vast majority of listed species do not have critical habitats. As the next Part of the Article explains, there are strong political and biological reasons not to designate critical habitat for an endangered species. Ironically, critical habitat designation often frustrates the goals of the ESA.

III. DESIGNATION OF CRITICAL HABITAT

In proposing that a species be listed under the ESA, formal rulemaking is initiated for listing and critical habitat designation. If designation is deemed imprudent or indeterminable, then the species does not receive a critical habitat. Otherwise, the USFWS


91. The study was funded by the Environmental Protection Agency. Id. at 223 (statement of John M. Fitzgerald, for 12 environmental groups including the Sierra Club, Natural Resources Defense Council, and Defenders of Wildlife) (emphasis added).
and its Office of Endangered Species conduct biological research and cost-benefit analyses, notify state agencies in the affected states, publish the proposed regulations in local papers, hold public hearings if requested, and discuss within the agency whether or not to designate. 92 Once a critical habitat is promulgated, a map of the protected habitat is placed in the Code of Federal Regulations. 93 However, this straightforward process is highly discretionary. As Table I shows, of the endangered or threatened species with habitats in the United States, only 22% have designated critical habitats, and one-third of these habitats are reserved for fish. 94

TABLE I: Designation of Critical Habitats

<table>
<thead>
<tr>
<th>Species</th>
<th>Species Listed Without a Critical Habitat</th>
<th>Species Listed with a Critical Habitat</th>
<th>Percentage of Listed Species with Critical Habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mammals</td>
<td>37</td>
<td>14</td>
<td>27%</td>
</tr>
<tr>
<td>Birds</td>
<td>76</td>
<td>10</td>
<td>12%</td>
</tr>
<tr>
<td>Reptiles</td>
<td>19</td>
<td>12</td>
<td>39%</td>
</tr>
<tr>
<td>Amphibians</td>
<td>6</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>Fish</td>
<td>40</td>
<td>36</td>
<td>47%</td>
</tr>
<tr>
<td>Snails</td>
<td>8</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Clams</td>
<td>29</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Crustaceans</td>
<td>15</td>
<td>6</td>
<td>29%</td>
</tr>
<tr>
<td>Plants</td>
<td>145</td>
<td>23</td>
<td>14%</td>
</tr>
<tr>
<td>Total</td>
<td>375</td>
<td>104</td>
<td></td>
</tr>
</tbody>
</table>

Why are there so few critical habitats?

From 1980 through 1988, the USFWS declined to designate critical habitats in 320 instances. In 317 of these cases, designation would not have been “prudent.” 95 Table II shows the particular

93. Id. §§ 17.11–12.
94. This table was compiled from the critical habitat listings in 50 C.F.R. sections 17.11–12 (1988). Only species with habitats in the United States were tabulated.
95. For example, the following proposed rule for the Magazine Mountain shrew is typical of the many reported USFWS decisions declining to designate critical habitat for reasons of prudence:

Section 4(d)(3) of the Act, as amended, requires that to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time the species is determined to be endangered and threatened. The Service finds that designation of the critical habitat is not prudent for the species at this time[.] . . . uncontrolled collecting could be a problem. Publication of critical habitat descriptions would make the species even more vulnerable and increase
reasons given by the Service for its determination that critical habitat status would be imprudent.96

<table>
<thead>
<tr>
<th>Reason Given</th>
<th>Number of Times Cited as Rationale for Non-Designation</th>
<th>Percent of Total Non-Designations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vandalism</td>
<td>204</td>
<td>64%</td>
</tr>
<tr>
<td>Taking</td>
<td>166</td>
<td>52%</td>
</tr>
<tr>
<td>Collectors</td>
<td>104</td>
<td>33%</td>
</tr>
<tr>
<td>Collections</td>
<td>58</td>
<td>18%</td>
</tr>
<tr>
<td>Tourism</td>
<td>8</td>
<td>3%</td>
</tr>
</tbody>
</table>

It is difficult to explain why there have been so few critical habitat designations. In some instances, a critical habitat map provides the equivalent of a treasure map for a collector or vandal (especially in the the case of plants).97 However, the proposition that collectors or vandals pose an overwhelming threat to four out of every five species listed, as suggested by the figures in Table II, is hard to believe.98 While it is virtually impossible to posit that

enforcement problems . . . . . Protection of this species's habitat will also be addressed through the recovery process and through section 7 jeopardy standard. Therefore it would not be prudent to determine critical habitat for the Magazine Mountain Shagreen at this time.


96. These figures were determined from a LEXIS search of the Federal Register. The initial search of "critical habitat w/30 not prudent or not determinable" produced 335 citations from July 25, 1980 through November 17, 1988. Each citation was checked for applicability, and the final count revealed 320 separate decisions not to designate critical habitat for species. The reasons for nondesignation were isolated by using the search commands: "and vandal", "and collector", "and collect! w/50 not prudent or not determinable", "and taking w/50 not prudent or not determinable", or "and tourist!". These figures overcount nondesignation decisions, since 131 species were cited in the Federal Register twice: first as agency proposals for listing and then as a final determination. However, even if the listing proposals are eliminated and only the final determinations are examined, the same figures appear. Of the 183 final determinations, the reasons given for nondesignation were: vandalism (63%), takings (48%), and collectors (30%).

97. With their high price on the black market, endangered cacti have become the plant equivalent of big game.

98. Interestingly, Spinks, former Director of the Office of Endangered Species, recounts that collection problems are generally confined to plants and narrowly endemic species. Telephone interview with John Spinks (Mar. 15, 1989). Bean contends that while collection is a bonafide reason [for not designating], in addition there is a genuine reluctance on the part of Fish and Wildlife to designate a critical habitat based on other factors. Designation has been a source of vociferous
human threats will never occur in a particular case because of designation, this only goes to illustrate the truism that proving a negative in any situation is, of course, impossible. Consequently, even in the face of USFWS figures that suggest that the threat of harm from humans is overwhelming, one must ask if vandalism and collection may serve as something of a smokescreen, obfuscating the true motivations behind many decisions not to designate critical habitat status.

The Committee Report accompanying the 1978 amendments surely did not anticipate this dearth of designations. Discussing the Secretary's discretion to withhold designation of an area if it was not prudent, the Report stated:

The phrase “to the maximum extent prudent” is intended to give the Secretary the discretion to decide not to designate critical habitat concurrently with the listing where it would not be in the best interests of the species to do so.

As an example, the designation of critical habitat for some endangered plants may only encourage individuals to collect these plants to the species' ultimate detriment. The committee intends that in most situations the Secretary will, in fact, designate critical habitat at the same time that a species is listed as either endangered or threatened. It is only in rare circumstances where the specification of critical habitat concurrently with the listing would not be beneficial to the species.99

As recently as 1986, in response to congressional inquiries about endangered plant species on private land, the USFWS minimized the danger posed to these plants from collection and vandalism, stating:

[While the Service is aware of several instances of deliberate vandalism or collecting of listed plants on private lands, such as the only known population of Virginia round-leaf birch, most plant species are more seriously threatened by conversion of public opposition in a number of cases. Fish and Wildlife is reluctant to arouse that sleeping dragon and is very much predisposed to find a reason of imprudence.]


habitat or incompatible land management regimes than by collecting or vandalism.\textsuperscript{100}

This admission of the relative unimportance of collection and vandalism to listed plants stands in contradiction to the fact that only fourteen percent of plants have critical habitats. Although critical habitat designations are often contested, it is still exceptionally rare for a project to be halted as a result of designation. In 1986, for instance, fifty-two jeopardy opinions were issued after nearly 11,000 consultations with USFWS. Of these, only two projects were blocked.\textsuperscript{101} While vandalism and collection are surely legitimate reasons for nondesignation of many species, they also may serve to obscure the real basis of critical habitat decisionmaking.

\textbf{A. Sources of Opposition to Critical Habitat}

In spite of the benefits of designation—its strengthening of jeopardy and section 9 prohibitions and improved interagency communication—critical habitat invites criticism from all quarters: government officials, environmentalists, and local interests. Depending on one’s perspective, critical habitat either does not provide enough protection or goes too far in hindering local development and growth. The economic analysis required for designation infuriates bureaucrats with its delays and further polarizes an already charged issue.

Above all, however, critical habitat serves as a lightening rod for adversaries. As Donald Barry, former Assistant Solicitor for Fish and Wildlife at the Department of the Interior, and presently Majority Counsel for Fisheries and Wildlife in the House Committee on Merchant Marine and Fisheries, explains, “[critical habitat] maps galvanize opposition immediately. The local Chamber of Commerce goes into a siege mentality and hits the panic button. Most Members [of Congress] have run into an endangered species.

\textsuperscript{100} 1987 ESA Reauthorization Hearing, supra note 90, at 402 (written statement of USFWS) (emphasis added).

\textsuperscript{101} Id. at 221. Thus, only 0.018\% of consultations enjoined federal actions.
[problem] in their districts.”

John Spinks, who worked in the USFWS’s Office of Endangered Species for nine years, recounts that,

"Critical habitat can lead to serious problems with local people and creates a very hostile opposition to the species. As soon as you draw a line on the map, they see it as the first step toward the feds condemning the land. “Critical habitat today, wildlife refuge tomorrow and we’re out of business.” It may be paranoid, but it was a commonplace problem that led to us protecting species in a terribly hostile context. Time after time and place after place we faced local opposition and hostility."

Part of this animosity stems from the almost universal misunderstanding of the effect of critical habitat designation. This vilification of critical habitat was evident in much of the outraged testimony during the 1978 ESA hearings and has continued to the present. Leaving aside the repercussions of the recent *Palila* decisions, critical habitat has no significance beyond federal activity. Yet, as Bean relates, “a lot of people perceive critical habitat, erroneously, I believe, to be a red light on development. Perhaps there is someone who is happy that their land has been declared critical habitat. But I don’t know who.”

Critical habitat designation is, after all, a political process. In that context, vociferous opposition is effective. As one observer

102. Interview with Donald Barry, former Assistant Solicitor for Fish and Wildlife, Department of the Interior, in Washington, D.C. (Feb. 11, 1989). “The other shortcoming in critical habitat designation,” Barry notes, is that “by putting the animal on a map you’re giving the impression that other areas are not important. For free-ranging animals, this is especially untrue.” *Id.*

103. Telephone interview with John Spinks, former Director, Office of Endangered Species (Mar. 15, 1989).

104. In the 1978 House hearings, USFWS contended that,

The designation of Critical Habitat does not have any direct impact upon the environment. The designation of Critical Habitat, in and of itself, prevents nothing, stops nothing, discourages nothing, and controls nothing. It simply designates an area that is necessary to the continued existence and possibly to the recovery of an Endangered or Threatened species. It is a biological designation.


has noted, "the designation of critical habitat moves the administrative process more clearly into the political arena because for the first time endangered species become spatial." In the face of this public opposition, it is not surprising that critical habitat is so rarely designated.

The pressure against critical habitat designation comes not only from local communities, but also from within the government. In particular, the delays and resources associated with establishing critical habitat weigh heavily in favor of non-designations, for the listing process as a whole has been plagued with delays. In 1986, USFWS testified that,

[When faced with a situation where information upon which a proposal is based has been called into question, we have generally seen delay while additional information can be gathered as less undesirable than either unwarranted withdrawal of the proposal or unjustified listing of the species. The requirement that rules designating critical habitat be analyzed for probable economic consequences means that such rules take longer to process, and in some cases, this analysis results in the deadline being missed. In several instances (e.g., least Bell’s vireo, Florida and Alabama beach mice, loach minnow and spikedace, Concho water snake) the Service has adopted final rules to list species while deferring designation of critical habitat in order to avoid having economic analysis unduly delay listings.]

This comment is borne out in the figures. From October 1, 1983, through mid-1986, 156 species were listed. Of the 114 listings without critical habitat, 24% went over deadline. Of the 42 listings with critical habitat, a remarkable 95% went over deadline. The 1978 ESA amendments required cost-benefit analyses for designation determinations, yet until 1988, USFWS had only one economist doing endangered species work. It currently has none. A finding that designation would not be "prudent" avoids the economic analysis requirements and associated delays, as well as heated public opposition.

Thus, bureaucratic self-interest and political expediency combine in opposition to designations. As an Interior Department

106. S. YAFFEE, supra note 31, at 92.
107. 1987 ESA Reauthorization Hearings, supra note 90, at 457 (statement of Frank Dunkle).
108. Id.
official interviewed in 1988 candidly stated, "vandalism is actually not that big a problem, but it's worth it to the bureaucracy to avoid critical habitat. There has been pressure not to designate any new critical habitat."\(^{109}\) However, the dynamics of designation decisions remain complex and cannot be adequately explained merely by reference to bureaucratic foot-dragging or the political leanings of the current or former President. Barry, for example, agrees that there are unstated reasons why USFWS may be reluctant to designate critical habitat, but relates that,

I personally reviewed eighty percent to eighty-five percent of the listing decisions until December, 1985. Usually it was the biologists who didn't want to designate critical habitat. Frequently it was the "powers that be" that wanted the critical habitats designated. That would galvanize local opposition and get economics into the equation.\(^{110}\)

Thus, any attempt to make sense of critical habitat designation decisions must go beyond noting the torpidity and conflict-adverse tendencies of bureaucrats, which affect all government procedures, and cannot stop with generalizations about how the politics of the reigning presidential administration affects designations. In fact, political partisanship seems to have little consistent effect on the percentage of designations made. The percentage of total critical habitats designated for listed species during the 1980's is the same as in the 1970's: approximately twenty-one percent.\(^{111}\) Thus, despite fundamental changes in the reigning political philosophy over the past twenty years, the overall percentage of species listed with a critical habitat has changed little since the passage of the ESA. The root cause of the dearth of nondesignations, then, lies not in the political officeholder but in the nature of critical habitats themselves.

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\(^{109}\) Confidential personal communication.

\(^{110}\) Interview with Donald Barry, former Assistant Solicitor for Fish and Wildlife, Department of the Interior, in Washington, D.C. (Feb. 11, 1989).

CONCLUSION

Whether the reason is biological, such as enhanced threat to the species, or political, such as controversy avoidance, bureaucratic self-interest, or insufficient resources, the fact remains that few critical habitats are being designated. This is not a new problem, however, for there has never been a high percentage of critical habitat designation for listed species. In light of this, one must question whether critical habitat on balance furthers the goals of the ESA. None of the wildlife experts interviewed for this Article were enthusiastic to retain critical habitat in the ESA if given the choice—Gayer remarked, “for all it’s cracked up to be, it really doesn’t add that much.”112 If the Palila extension takes hold, these views may change. Nonetheless, there does seem to be something wrong when the USFWS consciously avoids designating critical habitat for seventy-nine percent of the listed species. One might just as well refuse to put up “No Parking” signs for fear they will be stolen.

A. Economics of the ESA

One reason why critical habitat is enforced so infrequently lies in the very structure of the ESA. As Spinks emphatically described, communities do not want to have the nation’s wildlife jewels identified in their backyard. Most basically, this opposition is rooted in the perception, accurate or not, that the Act’s economic impact hurts localities with critical habitat areas.

And indeed, critical habitat status can complicate life for both public and private sectors. Any federal agency action that may adversely modify critical habitat must be reviewed. Thus dam and highway construction, wetland filling, and any other action requiring a federal permit that occurs on or near critical habitat must undergo section 7 consultation procedures. For a private actor, the delays in obtaining approval are undesirable because of lost opportunity costs and uncertainty. The community located near a critical habitat might lose the potential development and tax base that might have formed had the land not been “zoned” to prohibit

federal adverse modification. And a property owner of critical habitat may find the land more difficult to convey because of the encumbrance. On the other hand, critical habitat designation may have no actual effect on local economies, especially if the adverse modification and jeopardy standards are truly redundant. Basic empirical research on the actual economic effects of designation is required before any conclusions may be reached.

Absent this data, however, and perhaps regardless of the actual economic effects of designation, many communities and landowners clearly perceive an economic cost for which they believe they are uncompensated. Communities do not object to being located near our nation's wildlife jewels, they simply do not want the species placed in an off-limits sanctuary next door. The value to the country in designating habitats may well exceed the sum of the perceived costs to the local communities, but these perceived costs are not distributed among the population. Hence it is no surprise that communities who believe they bear a disproportionate burden for the sake of species protection are hostile to designation. In order for small communities to want to protect or to be indifferent to the protection of local endangered species, the incentive structure of the ESA must be reexamined.¹¹³

B. Alternatives

Empirical research will indicate the proper solution. If the loss is imaginary, then education and public relations are appropriate. If designation actually does occasion lost income, then compensation should be considered. This could be performed through tax credits or subsidies or as payment for proven economic losses resulting from designation. The state of Minnesota, under regulations issued pursuant to section 4(d) of the ESA, currently compensates owners of livestock for proven kills by the endangered gray wolves. This insurance policy raises the public's consciousness of endangered species issues and, more important, defuses criticism of wildlife protection programs by proving the

¹¹³. The controversial nature of critical habitats is, in perspective, very important. As Patrick Parenteau, plaintiff’s counsel in the Greyrocks Dam case, observed: “If critical habitat designation were not controversial, it probably would not be accomplishing anything.” Telephone interview with Patrick Parenteau (Oct. 20, 1989).
actual extent of the wolves' livestock predation. Similarly, the
government could provide insurance for proven economic losses
occasioned by critical habitat designation.

Another proposal to strengthen the ESA would be to eliminate
critical habitat from section 7, collapsing the prohibition into the
jeopardy standard. Adverse modification would be litigated as a
form of jeopardy, and the critical habitat element would change
into a "habitat area." The habitat area would be a legal designation,
the only significance of which would be to put agencies on notice.
USFWS would be required at the time of listing to describe areas
in which actions subject to section 7 might lead to jeopardy. Since
the designation would have no prohibitive power, economic anal-
ysis could be taken out of the designation process, thus eliminat-
ing the delays and paperwork associated with critical habitat desig-
nation. The habitat maps could be larger, as well, eliminating
many of the collection and vandalism excuses for refusing to des-
ignate habitat. These larger maps would be published for more
species, leading to better enforcement because citizen groups and
agencies would be given better notice. This proposal does face
difficulties, but it retains the benefits of critical habitat while
eliminating many reasons for nondesignation.

The history of critical habitat is one of contradictions, reflect-
ing the country's ambiguity toward protection of endangered spe-
cies. Though restricted in scope by Congress, critical habitat has
remained an important prohibition as a result of regulatory redun-
dancy and expansive judicial interpretation. So long as species are
collected and vandalized, designation decisions will remain highly

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114. The resources required to consider critical habitat designation could be directed
to remedy the ESA's most pressing problem, the vast number of candidate species. In
1986, over 3000 United States species remained candidates for listing. Eighty candidates
have already been dropped from the list because they became extinct. 1987 ESA Reau-
thorization Hearings, supra note 90, at 219 (statement of Mr. Fitzgerald). Environmentalists
claim that in the last 20 years, 300 species became extinct while waiting to be put on the
list. N.Y. Times, Feb. 14, 1988, § 1, at 38, col. 5. As Frank Dunkle, former Director of the
USFWS commented, "our successes are very few for a lot of reasons, including a shortage
of money and resources." The Law Saves a Few Species from Oblivion, N.Y. Times, Nov.
27, 1988, at E6, col. 1.

115. If the maps were published as a periodic notice by USFWS in the Federal
Register without giving the public a chance to comment, the representation arguments
raised in the 1978 amendment hearings would reappear. If designation were made part of
the informal rulemaking process, this would retain opportunities for comment and oppo-
sition. With bigger maps, more people may have more grievances over the special desig-
nation of land, be it critical habitat or habitat area. Eliminating critical habitats thus may
lead to the same fights under a different names.
discretionary; for if a species has a price on the illegal market, it surely is imprudent to publish its location and thus aid its demise. However, when a species is denied critical habitat for political rather than biological reasons, the ESA has failed in its mandate to protect our nation's wildlife. It is difficult to tell how many species are in this situation, but the lack of published habitat for these species allows harmful actions to slip unnoticed through the consultation process and denies those seeking to protect the species the shield of the adverse modification prohibition. Until Congress revisits critical habitat designation and explores the actual economic effects of designation, fulfillment of ESA's charge and protection of our natural heritage will remain elusive.