Arizona Cattle Growers' Pyrrhic Victory for Critical Habitat

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Since the inception of the Endangered Species Act, litigants from both sides of the political spectrum have challenged the U.S. Fish and Wildlife Service's critical habitat designations, with development interests typically arguing to limit the designation of critical habitat and environmental interests arguing to expand it. For much of the Act's history, the Fish and Wildlife Service and the courts linked protecting critical habitat to preventing the jeopardy or extinction of a species. Yet, even after multiple circuit courts of appeals invalidated this approach in favor of connecting critical habitat to the conservation or recovery of a species, the deficient status quo of preventing harm instead of promoting recovery endures. Arizona Cattle Growers is one example.

At first glance Arizona Cattle Growers' Association v. Salazar, a recently decided Ninth Circuit case about the critical habitat designation of the Mexican spotted owl, appears to be just another addition to the litigious history of the Endangered Species Act. While the case may be counted as a conclusive victory for the environmental groups that intervened to ensure the preservation of the Mexican spotted owl's critical habitat, the focus of the court's discussion on whether the Fish and Wildlife Service designated unoccupied areas as occupied critical habitat highlights a less promising aspect of the decision: the ESA's ineffectiveness at promoting species recovery instead of merely preventing their extinction.

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INTRODUCTION

"Broken," "ineffective," "unsustainable." These are just a few common criticisms of the Endangered Species Act of 1973 (ESA), the "pit bull" of all environmental laws, passed with the groundbreaking goal of actively conserving biological diversity. While the ESA has had victories in preventing some species' total eradication, the Act has largely failed in its ultimate mission of bringing endangered and threatened species back from their precarious positions on the brink of extinction. In other words, more often than not, the ESA prolongs species' mere survival rather than achieving their actual recovery, the point where the species no longer needs government protection to avert its extinction.

Many environmentalists argue that the ESA provides the necessary tools for recovering species; agencies are simply not using them correctly. Often,


2. See Federico Cheever, Road to Recovery: A New Way of Thinking about the Endangered Species Act, 23 ECOLOGY L.Q. 1, 12 (1996) (stating that statistics suggest the ESA "has been ineffective in recovering species to the point at which they can be delisted").

3. See Doug Mosebar, Remarks from the President of the California Farm Bureau Federation at the U.S. Department of the Interior Public Meeting (Sept. 30, 2009), available at https://www.cfbf.com/agalert/pdf/MosebarDCwaterhearing9-09.pdf (stating, as evidence of the ESA's alleged unsustainability, that "nearly one-quarter of [the 2009] water shortages can be attributed to federal regulatory restrictions").


7. A species is endangered if it is "in danger of extinction throughout all or a significant portion of its range." Id. § 1532(6).

8. A "threatened species" is "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Id. § 1532(20).


10. See Cheever, supra note 2, at 4.


12. See, e.g., BRUCE BABBITT, CITIES IN THE WILDERNESS: A NEW VISION OF LAND USE IN AMERICA 92–94 (2005); Cheever, supra note 2, at 77–78 (calling for a "paradigm change" toward "accept[ing] the central role of the concept of recovery in all aspects of the ESA"); Holly Doremus, The Endangered Species Act: Static Law Meets Dynamic World, 32 WASH. U. J.L. & PUB'Y (forthcoming 2011) (arguing for a more dynamic approach to the ESA that would take into account the often unstable
complaints about the ESA concern the purported mightiest recovery tool of them all: the designation and protection of “critical habitat,” or areas “essential to the conservation” of species listed under the ESA. A critical habitat designation could affect the economic use of millions of acres of federal land and is considered by some to be “more important than the designation of an endangered species itself” in terms of recovery. Consequently, parties on both sides of the conservation issue clamor for its proper use, but from different angles. Where industrial or development associations argue that the agencies enforcing the ESA—the Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (collectively “the Services”)—over-designate critical habitat, improperly limiting use of this protected land, environmentalists argue they under-designate it. Where the former camp alleges the Services give insufficient weight to the economic impacts of critical habitat designations, the latter counters the Services give them too much weight.
These groups often bring their grievances to court, swamping the Services with litigation and forcing multiple revisions of an administrative rule on a species’ critical habitat designation. The time and money consumed in critical habitat litigation has led even the FWS to harshly critique the critical habitat designation process. Yet the high political and economic stakes involved render agency-initiated adjustments to the ESA’s regulations unlikely. Meanwhile, the courts muddle through critical habitat litigation, sometimes granting deference to the Services’ determinations, sometimes not.

A recent Ninth Circuit opinion addressing the critical habitat designation of the Mexican spotted owl (the owl), *Arizona Cattle Growers’ Association v. Salazar* (Arizona Cattle Growers), demonstrates that sometimes, behind a court’s validation of FWS actions under the ESA, is a story of a missed opportunity to achieve the statute’s recovery goals. In *Arizona Cattle Growers*, the court upheld the FWS’s designation of 8.6 million acres of federal land as critical habitat for the owl. In doing so, it rejected the ranching industry’s claim that the agency improperly designated unoccupied areas as occupied to avoid the allegedly more onerous process of designating land that the species does not occupy as critical habitat. The parties’ arguments arose from the incongruence that, while the ESA defines the phrases “occupied critical habitat” and “unoccupied critical habitat” as areas “essential to the conservation of the species,” legislative history and agency regulation urge caution in designating unoccupied areas, a sentiment that the plain language of the statute

22. The ESA requires the Services to publish general notice of the proposed regulation for a species’ critical habitat designation and then to publish a final regulation, or “final rule,” within the year. See 16 U.S.C. § 1533(b)(6)(A) (2006).


24. See id. In thirty years of implementing the Act, the Service has found that the designation of statutory critical habitat provides little additional protection to most listed species while consuming significant amounts of available conservation resources. See id.

25. Critical habitat cases are held to the Administrative Procedure Act’s arbitrary and capricious standard of review. See 5 U.S.C. § 706(2)(A) (2006). According to Ninth Circuit precedent, the court usually “defers to the agency’s analysis, particularly within its area of competence.” *Ariz. Cattle Growers’ Ass’n v. Salazar*, 606 F.3d 1160, 1163 (9th Cir. 2010).

26. See *Ariz. Cattle Growers’ Ass’n v. Salazar* (Arizona Cattle Growers), 606 F.3d 1160, 1164 (9th Cir. 2010) (upholding the FWS’s interpretation of “occupied critical habitat” as areas where the species is “likely to be present”).

27. See Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv., 378 F.3d 1059, 1069–70 (9th Cir. 2004); Sierra Club v. U.S. Fish & Wildlife Serv., 245 F.3d 434, 441–42 (5th Cir. 2001). Both cases invalidated the FWS’s definition of “destruction or adverse modification” in 50 C.F.R. section 402.02 because it read out the recovery purpose of designating critical habitat. *Gifford Pinchot*, 378 F.3d at 1069–70; *Sierra Club*, 245 F.3d at 441–42.

28. *Arizona Cattle Growers*, 606 F.3d 1160 (9th Cir. 2010).

29. See id.

30. See id.

Moreover, Congress left the modifiers "occupied" and "unoccupied" themselves undefined in the ESA. The FWS thus faced the task of defining the terms "occupied" and "unoccupied" while attempting to designate areas that were essential to the conservation of a non-stationary species (the owl in this case). To the ranching industry's consternation, the FWS chose to define "occupied" broadly, as those areas where the species are "known to occur or are likely to occur." Ranchers struck back with a suit accusing the FWS of expanding its definition of "occupied" so that the definition would slyly subsume the owl's unoccupied critical habitat, contrary to legislative intent.

A superficial reading of Arizona Cattle Growers could lead to a perception of the case as being a clear win for environmentalists, promoting the broadest possible critical habitat designations regardless of their semantic categorization as "occupied" or "unoccupied." However, the occupied-unoccupied divide is not simply an issue of semantics. Unoccupied critical habitat affords species greater protection, and thus a greater likelihood of recovery, than occupied critical habitat. Thus, while the FWS's broad interpretation of "occupied" may further the ESA's conservation purpose for species in the present, the agency's avoidance of the designation of unoccupied critical habitat for many species deprives those species of greater protection in the future, especially in the face of climate change. The case of the owl is just one example of this problem.

After Part I's brief exploration of the ESA's purpose, protections, and misfires, Part II provides an overview of Arizona Cattle Growers' contribution to the interpretation of critical habitat designation and its terms under the ESA. Part III explores the FWS's unwillingness to designate unoccupied critical habitat, effectively failing to employ a significant tool for species recovery. Part III then offers concrete possibilities via regulatory adjustment or judicial review for increasing the number of designations of unoccupied critical habitat to conform with the recovery purpose of the ESA.

33. See Brief of Defendants-Appellees at 23, Arizona Cattle Growers, No. 08-15810 (9th Cir. Sept. 24, 2008).
34. See id at 17.
35. See Brief of Petitioner-Appellant at 16–17, Arizona Cattle Growers, No. 08-15810 (9th Cir. July 24, 2008).
36. See Q&A, supra note 1. Since federal agencies must consult with the FWS for activities affecting areas where endangered or threatened species are present, whether or not the FWS has designated critical habitat, protections for a species' mere listing under the ESA and protections for occupied critical habitat overlap. Id. However, the designation of unoccupied critical habitat forces federal agencies to consult the FWS in areas that may not otherwise benefit from government protection. Id.
I. AN INTRODUCTION TO THE ESA AND CRITICAL HABITAT PROTECTIONS

A. The ESA's Core Goal Is the Recovery of Endangered and Threatened Species

Starting with the premises that "economic growth and development untempered by adequate concern and conservation" have rendered many species extinct, and that biodiversity affords "esthetic, ecological, educational, historical, recreational, and scientific value" to the people of the United States, Congress passed the ESA in an effort to conserve threatened and endangered species. The Act defines the conservation of a species as the point at which the protective provisions of the ESA "are no longer necessary" and the species can be delisted. Conservation is commonly interpreted as synonymous with species "recovery," which is distinguished from the less ambitious goal of merely ensuring a species' continued survival. Recognizing the importance of a species' habitat to its recovery, Congress established that the core purpose of the ESA was to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved."

Sections 4, 7, and 9 contain the cornerstone protections of the Act. Section 4 provides for the conservation of endangered species by requiring the Services to take three key steps. First, section 4 invests the Secretary of the Interior with the power to determine whether a species should be listed as endangered or threatened, based on an evaluation of the various "natural or manmade factors affecting its continued existence." Second, concurrently with a species' listing, the Secretary must then designate critical habitat to the "maximum extent prudent and determinable," using the "best scientific and commercial data available." Critical habitat is defined 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

38. Id. § 1531(a)(3).
39. See id. § 1531(b).
40. See id. § 1532(2).
41. See 50 C.F.R. § 402.02 (stating that "[r]ecovery means improvement in the status of listed species to the point at which listing is no longer appropriate").
42. 16 U.S.C. § 1531(b).
43. Section 4 corresponds to 16 U.S.C. section 1533 (2006), section 7 to section 1536, and section 9 to section 1538.
44. Id. § 1533(a)(1), (a)(1)(E). The listing section also includes the following factors: "present or threatened destruction, modification, or curtailment of its habitat or range"; "overutilization for commercial, recreational, scientific, or educational purposes"; "disease or predation"; and "inadequacy of existing regulatory mechanisms." Id. § 1533(a)(1)(A)–(D).
45. Id. § 1533(a)(3)(A).
46. Id. § 1533(b)(1)(A).
features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and

(ii) specific areas outside the geographical area occupied by the species at the time it is listed . . . upon a determination by the Secretary that such areas are essential for the conservation of the species.47

Thus, Congress divided critical habitat into two categories—occupied areas and unoccupied areas—which must be essential “to” or “for” the conservation of the species, respectively.48 When determining critical habitat, the Services focus on “primary constituent elements” essential to species conservation, such as roost sites, nesting grounds, and feeding sites.49 Finally, section 4 mandates the development and implementation of “recovery plans” for listed species, which incorporate the management actions, measurable criteria, and time and cost estimates necessary to recover and delist the species.50

Sections 7 and 9 afford certain protections to listed species even if critical habitat has not been designated for them, but some of these measures focus on simply ensuring a species’ continued survival, rather than proactively aiding in its recovery. Section 7 requires that federal agencies consult with the appropriate service “to insure” that any action they “authoriz[e], fund[ ] or carr[y] out . . . is not likely to jeopardize the continued existence” of a species.51 This “jeopardy standard” sets a lower bar of protection than the recovery standard used for critical habitat52 because the “biological requirements for survival—to maintain the existence of the species—are always less than, and consequently encompassed by, the biological requirements for recovery—affirmatively improving the condition of the species.”53 Section 9 prohibits “any person” from “taking”54 a member of an endangered species.55 Generally,
individual members of a species must occupy the area in which the action in question occurred for it to constitute a "take" whereas critical habitat protections may apply in areas unoccupied by a species. Determinations about whether an action resulted in a "taking" do not include analysis of the species recovery prospects.

While the above baseline protections focus on ensuring the survival of a species, the section 7 critical habitat consultation process is focused more on the ESA's recovery goal. Section 7 requires federal agencies to consult with the appropriate Service to insure that their actions do not result in the "destruction or adverse modification of [critical habitat]." This measure prevents any modification of critical habitat that would decrease a species' chances of recovery, not merely survival, increasing the significance of critical habitat protection.

B. As Congress Recognized in Its Enactment of the ESA, Critical Habitat Is Integral to Species Recovery

The ESA's legislative history "evidences Congress' understanding that the preservation of a species' habitat is essential to the [long-term] preservation of the species itself." It is the Committee's view that classifying a species as endangered or threatened is only the first step in insuring its survival. Of equal or more importance is the determination of the habitat necessary for the species' continued existence. Once a habitat is so designated, the Act requires that proposed Federal actions not adversely affect the habitat. If the protection of endangered and threatened species depends in large measure on the preservation of the species' habitat, then the ultimate effectiveness of the Endangered Species Act will depend on the designation of critical habitats.

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55. § 1538(a).
56. See Babbitt v. Sweet Home Chapter of Cmty's. for a Greater Or., 515 U.S. 687, 708 (1995) (holding that the Secretary reasonably defined "harm" within the meaning of the term "take" as including "significant habitat modification or degradation that actually kills or injures wildlife"); Defenders of Wildlife v. Bernal, 204 F.3d 920, 927 (9th Cir. 2000) (holding that the construction of a school in an area unoccupied by the endangered pygmy owl is not a "take"). The Services may also authorize "incidental takes," or those "otherwise prohibited, if such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." 50 C.F.R. § 17.3 (2010).
58. See Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., 524 F.3d 917, 931-32 (9th Cir. 2007).
60. While a species' mere listing affords it government protections measured by the "jeopardy standard," multiple federal courts of appeals have determined that critical habitat's "adverse modification standard" is a "recovery standard." See Nat'l Wildlife Fed'n, 524 F.3d at 931-32; see, e.g., Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv., 378 F.3d 1059, 1069-70 (9th Cir. 2004). Part I.C.1 further discusses the courts' reasoning.
62. Id. (quoting H.R. REP. NO. 94-887, at 3 (1976)).
Research supports Congress's conclusion: threats to habitat affect more than 85 percent of species listed under the ESA, and research demonstrates that "habitat loss and adverse modification are the leading causes of species endangerment in North America."

But, fortunately, research also shows that critical habitat designations benefit endangered and threatened species. Quantitative analyses demonstrate that "[s]pecies with [designated] critical habitat for two or more years appeared to be more likely to be improving and less likely to be declining than species without" it. Researchers attribute this finding to the positive correlation between critical habitat designations and a general "increased effort to protect a species." Specifically, critical habitat designations increase knowledge of a species' status and trends, and, as an educational tool, encourage constructive changes in human activity affecting critical habitat. Further, there is a positive correlation between critical habitat designations and the implementation of recovery plans, which are demonstrated to quantitatively assist species recovery.

Unoccupied critical habitat offers listed species additional legal benefits. As mentioned above, section 9 affords protections to listed species, whether the Services have designated critical habitat for them or not. However, there must be a threat to members of a listed species, as opposed to merely their habitat, for these protections to apply. For example, habitat loss will only constitute a "take" under section 9 if it is likely to actually harm members of a listed species. Further, the section 7 jeopardy-standard protections for areas occupied by a listed species can overlap with the recovery-centered critical habitat protections: when a federal action threatens a listed species' survival, it also threatens the species recovery. A section 7 consultation involving unoccupied critical habitat, however, expands the more stringent recovery-standard protections to areas where "[f]ederal agencies may not already be

64. Id.
65. See id.
66. Taylor et al., supra note 9, at 362.
67. See Hagen & Hodges, supra note 63, at 400.
68. See id.
69. See Taylor et al., supra note 9, at 364.
70. See Part I.A.
71. See Babbit v. Sweet Home Chapter of Cmtys. for a Greater Or. (Sweet Home), 515 U.S. 687, 708 (1995) (holding "significant habitat modification or degradation that actually kills or injures wildlife" constitutes a "take"); Defenders of Wildlife v. Bernal, 204 F.3d 920, 927 (9th Cir. 2000) (holding that the construction of a school in an area unoccupied by the endangered pygmy owl is not a "take").
72. See Sweet Home, 515 U.S. at 708; Bernal, 204 F.3d at 927.
73. Yet, since the requirements for recovering a species are greater than merely ensuring its survival, an action that diminishes chances of recovery will not necessarily diminish chances of survival. See Fantl, supra note 53, at 150–51; see also Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., 524 F.3d 917, 931 (9th Cir. 2007).
consulting with the Service, unless other listed species are present. This means that only the designation of unoccupied critical habitat will result in government protection of areas essential to the conservation of a species where members of the species are not actually present. An FWS regulation explains:

For most species, the duplication between the jeopardy standard and the adverse modification standard exists because unoccupied habitat is not involved. When unoccupied habitat is designated as critical habitat, the duplication ceases because consultation under section 7 must then be completed on an area not previously included in the analysis.

While the ESA provides no other protections for unoccupied critical habitat, the expanded section 7 protection it can trigger aids in species recovery. Despite its importance, unoccupied habitat constitutes "a relatively small amount of habitat designated as critical habitat." This Note explores factors, including political pressure, limiting the designation of unoccupied critical habitat, despite the support that biological evidence provides for such designations.

C. Interest Groups Have Attempted to Weaken Critical Habitat Protections While Some Courts Have Attempted to Strengthen Them

As the section 7 consultation process could potentially halt economic activities on federal land, critical habitat designation has caused much stir in the political realm. Even the development of a statutory definition of critical habitat was the result of controversy. While industry representatives have exerted political pressure on agency personnel to avoid critical habitat designations, courts have consistently held that critical habitat designations are non-discretionary, even amid budget crises. Further, courts have frequently emphasized that critical habitat should be designated and protected in conformity with the ESA's goal of species recovery rather than mere survival.

1. Despite Political Controversy, Congress and the Courts Have Tied the Definition of Critical Habitat and Its Government Protections to the ESA's Recovery Purpose

The ESA lacked a definition for critical habitat until Congress amended the Act in 1978 in response to a series of controversial cases; its definition has

74. Q&A, supra note 1.
75. See Brief of Petitioner-Appellant at 27, Arizona Cattle Growers, No. 08-15810 (9th Cir. July 24, 2008) (quoting Notice of Intent to Clarify the Role of Habitat in Endangered Species' Conservation, 64 Fed. Reg. 31,871, 31,872 (June 14, 1999)).
76. See Hagen & Hodges, supra note 63, at 400.
78. See id. at 401.
79. See, e.g., Sierra Club v. U.S. Fish & Wildlife Serv., 245 F.3d 434, 441–42 (5th Cir. 2001); Arizona Cattle Growers, 606 F.3d 1160, 1166 (9th Cir. 2010).
remained unchanged since then. Not long after the ESA passed in 1973, the suspension of construction projects across the country demonstrated the Act’s power to halt economic development for the protection of endangered species, even those little known to the public. In the most notorious case, *Tennessee Valley Authority v. Hill,* the Supreme Court enjoined the $100 million Tellico Dam project in Tennessee because it “threatened to flood the critical habitat of a small, inedible, and unappealing fish called the snail darter.” As a result of the aftershock of the Tellico Dam case, and out of concern that the FWS’s regulatory definition of critical habitat was overly broad, Congress decided to amend the ESA, supplying its own definition of critical habitat. Significantly, instead of eliminating the entire concept of critical habitat from the ESA out of fear that the FWS’s definition would lead to the designation of the whole country as critical habitat, Congress provided a definition of critical habitat that “simultaneously narrowed and expanded the concept.” On the one hand, Congress limited critical habitat by mandating that it “shall not include the entire geographical area which can be occupied by the threatened or endangered species,” except “in those circumstances determined by the Secretary.” On the other hand, by defining critical habitat as “specific areas . . . essential to the conservation of the species,” Congress “expanded critical habitat’s conceptual scope by linking it to the broad concept of ‘conservation,’ rather than mere ‘survival.’” However, the 1978 amendments also weakened potential protections by adding a provision that requires the

80. Broderick, supra note 5, at 81–82.
83. Sinden, supra note 81, at 144.
84. *See Critical Habitat Definitions, 43 Fed. Reg. 870, 874–75 (Jan. 4, 1978) (to be codified at 50 C.F.R. pt. 402). The Services had defined critical habitat as “any air, land, or water area . . . and constituent elements thereof, the loss of which would appreciably decrease the likelihood of the survival and recovery of listed species.” Id.
85. See Fantl, supra note 53, at 151.
86. *See Sinden, supra note 81, at 150 n.91 (quoting 124 CONG. REc. 21,146 (1978) (statement of Sen. John Stennis) (“It is conceivable then that virtually every river, stream, hillside and field may contain a unique species or subspecies of life. Therefore, it is possible that virtually any project could be stopped in its tracks if the opponents just look hard enough for a unique animal or plant in the area. You may be sure that they will do so.”)).
87. Sinden, supra note 81, at 149.
89. Id. § 1532(5)(A).
90. Sinden, supra note 81, at 150.
Services to consider economic effects when designating critical habitat.\textsuperscript{91} Politicians and environmentalists have criticized this provision as highly antithetical to the purpose of the Act.\textsuperscript{92}

The economic analysis requirement had little actual impact for many years, as the FWS, faced with political pressure and lacking economic resources,\textsuperscript{93} was largely successful in sidestepping critical habitat designation requirements through the 1990s\textsuperscript{94} by claiming a critical habitat designation was “not prudent” or “not determinable.”\textsuperscript{95} Further, it relied on its own regulation defining “destruction or adverse modification” as effectively identical to the standard for “jeopardy,” thereby stripping critical habitat of its recovery goal under the section 7 consultation process.\textsuperscript{96} Using this interpretation, the FWS argued that critical habitat designation did not confer any additional benefit, since a species’ listing already affords it the protection of the jeopardy standard.\textsuperscript{97} Indeed, statistical data demonstrates that all but the most threatening projects went forward, giving “rise to the suspicion that the biological agencies [were] bending over backward to identify alternatives that send the project forward in the face of potential jeopardy—at some risk to the species.”\textsuperscript{98}

As environmentalist groups pursued critical habitat litigation, it became clear that the courts’ perspective on critical habitat designations differed from that of the FWS. Namely, courts viewed critical habitat designations as non-discretionary, and held that the “not prudent” or “not determinable” cases would be the exception rather than the rule.\textsuperscript{99} The U.S. District Court for the District of Hawaii, for example, remanded back to the FWS its finding that designating critical habitat for 245 endangered or threatened plants was “not

\textsuperscript{92} See H.R. REP. 95-1625, 69 (Sept. 24, 1978) (statement of Rep. Gerry Studds et al.) (arguing that amending section 4 to add economic considerations to critical habitat designations “constitutes a loophole which could readily be abused by any Secretary of the Interior who is vulnerable to political pressure, or who is not sympathetic to the basic purposes of the [ESA]”); Houck, supra note 16, at 319.
\textsuperscript{93} See Houck, supra note 16, at 319 n.276.
\textsuperscript{94} See Natural Res. Def. Council v. U.S. Dep’t of Interior, 113 F.3d 1121, 1127 (9th Cir. 1997) (greatly narrowing the Secretary’s discretion in choosing whether or not to designate critical habitat by finding that a designation could not be avoided on the grounds that it is “merely less beneficial to the species than another type of protection”); Sinden, supra note 81, at 151.
\textsuperscript{95} Broderick, supra note 5, at 101. The FWS instituted a regulation, 50 C.F.R. § 424.12 (2002), broadly and vaguely defining when designation of critical habitat was “not prudent,” to undercut the requirement in 16 U.S.C. section 1533(a)(3)(A) that the FWS designate critical habitat to “the maximum extent prudent and determinable.”
\textsuperscript{96} See N.M. Cattle Growers Ass’n v. U.S. Fish & Wildlife Serv., 248 F.3d 1277, 1283–85 (10th Cir. 2001); 50 C.F.R. § 402.02 (2010); see also Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv., 378 F.3d 1059, 1069–70 (9th Cir. 2004).
\textsuperscript{97} See Broderick, supra note 5, at 102.
\textsuperscript{98} Houck, supra note 16, at 319 (stating that, in the late 1980s and early 1990s, only “eighteen projects were ultimately terminated, less than one percent of formal consultations, and less than .02% of consultations overall”).
\textsuperscript{99} See Hagen & Hodges, supra note 63, at 401–02 (citing Ctr. for Biological Diversity v. Norton, 240 F. Supp. 2d 1090 (D. Ariz. 2003)).
prudent” because the agency failed to articulate a rational basis for its conclusions. Soon after, the courts also established that the FWS could no longer avoid designating critical habitat on the grounds that it was not cost effective. In 2001, *Sierra Club v. U.S. Fish and Wildlife Service* invalidated the FWS’s definition of “destruction or adverse modification” because, by requiring consultation only when an action affected both the recovery and survival of a listed species, the regulation essentially read out the recovery purpose of critical habitat designation. The court explained that since the concept of conservation, which “speaks” to listed species recovery, is broader than that of survival, the FWS’s definition set too high a bar for section 7 consultation. Other U.S Circuit Courts of Appeals, including the Ninth Circuit, followed. These cases reinforced the central purpose of the ESA as the conservation of endangered species and thus strengthened the connection between critical habitat designations and recovery.

2. *Political Interests and the FWS Have Pushed Back Against the Courts’ Efforts to Shape Critical Habitat Designation Policy*

Judicial support of critical habitat designations did not sit well with political interest groups. For example, in response to the limits put on the timber industry in the northern spotted owl’s critical habitat in the Northwest, industry groups, supported by former President George H.W. Bush, lobbied to “put people ahead of owls.” Bush threatened to refuse to re-authorize the Act unless the Services gave more consideration to local economies and jobs. The George W. Bush administration shared the sentiment. It required the FWS to insert a “disclaimer” at the beginning of its critical habitat designation

101. See id.; Broderick, supra note 5, at 104.
102. 245 F.3d 434 (5th Cir. 2001) (invalidating the FWS’s reasoning for not designating critical habitat for the Gulf sturgeon).
104. *Sierra Club v. U.S. Fish & Wildlife Serv.*, 245 F.3d at 441–42.
105. See Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv., 378 F.3d 1059 (9th Cir. 2004) (holding that “the regulatory definition of ‘adverse modification’ gives too little protection to designated critical habitat” of the northern spotted owl).
106. See Sierra Club v. U.S. Fish & Wildlife Serv., 245 F.3d 434, 438 (5th Cir. 2001).
109. See id.
proposals and rules that stated that "designation of critical habitat provides little additional protection to species." In its 2004 rule for the Mexican spotted owl, for example, the FWS purported that critical habitat designation "provides little real conservation benefit, is driven by litigation and the courts rather than biology, limits [the FWS's] ability to fully evaluate the science involved, consumes enormous agency resources, and imposes huge social and economic costs." Further, the document called for more agency discretion to implement alternative actions that the agency believes would result in "comparable conservation" and thus "obviat[e] the need for critical habitat" designation. Courts and policy analysts "note that such blanket assertions are politically and economically driven." Moreover, as noted above, scientific evidence contradicts the "disclaimer," and the FWS has conceded that it has no data to support it.

Even under the Obama administration, the FWS continues to bluntly criticize the critical habitat designation process in its ESA literature. The agency states that, because of the backlog of court-ordered deadlines, funding is diverted from "on-the-ground conservation efforts" to the "lower-priority work of designating critical habitat." It further alleges that the steps required to designate critical habitat, including the preparation of detailed maps of species' habitats, publishing proposals for public comment, and completing economic analyses, are economically wasteful. The FWS points out that the average cost of designating critical habitat for a species is approximately $400,000, about equal to the cost of listing two species.

Despite political grumbling about the disastrous impacts critical habitat designation has on economic development, most activities requiring section 7 consultation for critical habitat go forward. Further, where the consultation does alter or terminate a project due to its destruction or adverse modification of critical habitat, these changes would have likely been implemented anyway in order to avoid jeopardy to the species. As noted above, it is typically the consultations on projects that affect unoccupied critical habitat where there "may be some project modifications that would not have occurred without the

110. Hagen & Hodges, supra note 63, at 400–01.
112. See id.
113. Hagen & Hodges, supra note 63, at 401 (citing Natural Res. Def. Council v. U.S. Dep’t of the Interior, 113 F.3d 1121 (9th Cir. 1997)).
114. See supra notes 65–69 and accompanying text.
115. See id. at 401.
117. See id. at 1.
118. See id. at 3.
120. See id.
121. See Part I.B.
critical habitat designation." This potential impact on economic development in unoccupied federal lands may explain the political underpinnings of avoiding unoccupied critical habitat designations, as in the case of the Mexican spotted owl.

II. ARIZONA CATTLE GROWERS: INTERPRETING OCCUPIED CRITICAL HABITAT IN A MANNER THAT FURTHERS THE RECOVERY PURPOSE OF THE ESA

A. THE FACTS

The Mexican spotted owl (the owl), or *Strix occidentalis lucida*, is one of three subspecies of spotted owls in the United States, which have "long served as a flagship species for environmentalists across the nation." Its geographic range extends from Aguascalientes, Mexico, through the mountains of Arizona, New Mexico, and western Texas, to the canyons of Utah and Colorado, and the Front Range of central Colorado.

The owl's diet consists of small rodents, bats, birds, reptiles, and arthropods. It is an old-growth resident, inhabiting forested mountains and canyons with mature trees that create high, closed canopies beneficial for nesting. Destruction of these old-growth forests by timber harvest programs and wildfire is the primary threat to the owl's existence. Other threats to the owl include oil and gas development, starvation, predation by the great horned owl and other birds, and low juvenile survival rates. In the 2004 final rule on the owl's critical habitat designation, the FWS, with a low

122. Id.
124. Saving the Mexican Spotted Owl, CTR. FOR BIOLOGICAL DIVERSITY, http://www.biologicaldiversity.org/species/birds/Mexican_spotted_owl/index.html (last visited Apr. 1, 2011). For example, in the 1980s and 1990s, proposed conservation of 8.4 million acres of federal land in Washington, Oregon, and California for the northern spotted owl started a legal war between loggers and environmentalists. Because the Mexican spotted owl has a larger geographic range than its northern cousin, potential for controversy around the species' listing and critical habitat designation is great. See Houck, supra note 16, at 335.
125. See ENVTL. ASSESSMENT, supra note 123, at 8.
126. See id. at 10.
127. See id. at 8.
128. See id. at 1–2.
130. See ENVTL. ASSESSMENT, supra note 123, at 49.
131. See id. at 10.
degree of certainty, estimated that the number of owls on "Federal lands in southwestern United States range[d] from 1,176 or 2,352."  

Prompted by a citizen’s petition in 1989, the FWS listed the owl as an endangered species in 1993 due to the negative effects of timber harvest and wildfire on the owl. The FWS did not concurrently designate critical habitat, opining that it “was not determinable at [that] time." After a lawsuit by the Center for Biological Diversity (CBD) forced the agency into action in 1995, prompt litigation brought by the Coalition of Arizona-New Mexico Counties for Stable Economic Growth resulted in the retraction of the 4.6 million acres of critical habitat designated for the owl in 1998. CBD successfully filed suit again to produce another designation by 2001, only to file suit in 2003 to challenge the new designation on the grounds that it left out geographical areas important for the bird’s recovery, violating requirements of the ESA and the Administrative Procedure Act. The FWS then reopened the public comment period for the proposed rule for the owl’s critical habitat designation, and finally, in 2004, designated approximately 8.6 million acres of critical habitat in Arizona, Colorado, Mexico, and Utah, with Arizona containing the largest amount of critical habitat at nearly 4 million acres.

As the starting point for its determination, the FWS considered the three types of habitat management areas it had identified in the owl’s 1995 recovery plan: protected areas, restricted areas, and other forest and woodland types. Protected areas triggered "the most stringent limitations," because they contained protected activity centers (PACs), which the recovery plan defined as 600 acres “placed at known or historical nest and/or roost sites." The agency “excluded all tribal lands from designation, refined critical habitat unit boundaries, and excluded certain areas that did not contain PACs.”

It is the 2004 rule that the Arizona Cattle Growers’ Association (the Association) challenged in Arizona Cattle Growers. The Association includes members in the ranching industry throughout Arizona who rely on federal land for livestock grazing because “private lands do not provide sufficient forage

134. Id.
135. See ENVTL. ASSESSMENT, supra note 123, at 2.
136. See id.
137. See Arizona Cattle Growers, 606 F.3d 1160, 1168 (9th Cir. 2010); Brief of Petitioner-Appellant at 11, Arizona Cattle Growers, No. 08-15810 (9th Cir. July 24, 2008).
138. See Arizona Cattle Growers’ 606 F.3d at 1162.
139. Brief of Defendants-Appellees at 9, Arizona Cattle Growers, No. 08-15810 (9th Cir. Sept. 24, 2008).
140. Arizona Cattle Growers, 606 F.3d at 1162–63.
141. See id. at 1162.
sources in Arizona."142 Some of the federal land on which members graze their livestock includes areas designated as critical habitat for the owl;143 thus, the United States Forest Service and the Bureau of Land Management’s issuance of permits for livestock grazing constitutes a federal action that requires section 7 consultation.144 The Association challenged the 2004 rule designating critical habitat for the owl because the rule may have resulted in restrictions on how Association members could use the federal land for livestock grazing.145 CBD intervened on behalf of the owl.146

B. THE PROCEDURAL HISTORY AND ARGUMENTS

The Association sued the Secretary of the Interior and other officials in the U.S. District Court for the District of Arizona, moving for summary judgment to set aside the 2004 rule as invalid on several grounds.147 After the district court denied the plaintiff’s motion and granted the defendants’ motions for summary judgment,148 the Association appealed two of its original claims to the Ninth Circuit: that the FWS illegally designated unoccupied areas as occupied critical habitat, and that the FWS’s economic analysis of the owl’s critical habitat designation was improper because it did not account for the economic impacts attributable to the listing decision.149 This Note limits its analysis to the court’s first holding.

The Association’s core claim was that the FWS improperly expanded its definition of occupied critical habitat so that it could designate areas that did not contain any owls as critical habitat while avoiding the allegedly more onerous process of designating unoccupied critical habitat.150 Though the text of the ESA does not explicitly require a more stringent process for designating unoccupied critical habitat, the Association relied on legislative history to demonstrate that the two categories of critical habitat exist in a hierarchy, with

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142. Brief of Petitioner-Appellant at 4–5, Arizona Cattle Growers, No. 08-15810 (9th Cir. July 24, 2008).

143. See id. at 5.

144. See id. at 5–6.

145. See id. at 6.

146. See generally Brief of Defendant-Intervenor-Appellee, Arizona Cattle Growers, No. 08-15810 (9th Cir. Oct. 8, 2008).


148. See id.

149. See Arizona Cattle Growers, 606 F.3d 1160, 1162 (9th Cir. 2010). For its second claim, not addressed in this Note, the Association argued that the FWS improperly conducted an economic analysis called the “baseline approach,” which considers the economic impacts of only the species’ critical habitat designation. The Association pointed out that the Tenth Circuit rejected the baseline approach in New Mexico Cattle Growers’ Ass’n v. U.S. Fish & Wildlife Service, 248 F.3d 1277 (10th Cir. 2001), because it failed to account for “co-extensive” costs, such as those stemming from the species’ listing. See Ariz. Cattle Growers Ass’n, 606 F.3d at 1172.

150. See Brief of Petitioner-Appellant at 2, Arizona Cattle Growers, No. 08-15810 (9th Cir. July 24, 2008).
occupied areas taking precedence. It stated that the FWS adopted a more burdensome standard for unoccupied areas in a regulation limiting their designation to situations in which occupied critical habitat is "inadequate to ensure the conservation of the species." The Association claimed that, to sidestep its own regulation, the FWS expanded its interpretation of occupied critical habitat post hoc to encompass millions of acres that the agency had previously characterized as being possibly unoccupied by the species, though it may serve as potential future habitat. Specifically, the Association cited an FWS internal email, dated one month before the rule was published, stating that most references to "unoccupied habitat" would be changed to "suitable habitat" outside of PACs or known owl sites. The Association argued that the Merriam-Webster definition of occupied as "resides in" was the appropriate interpretation because it would limit occupied critical habitat designations to PACs, an approach the Association claimed the FWS had originally taken.

In their briefs, neither the FWS nor CBD directly addressed the FWS's regulation limiting designation of unoccupied critical habitat to situations where "a designation limited to its present range would be inadequate to ensure the conservation of the species." Instead, the FWS stated that although the ESA permits the designation of unoccupied areas essential to the conservation of a species, it chose not to make "such a formal finding" because the owl occupied all of the habitat designated. Further, the FWS and CBD defended the agency's definition of occupied critical habitat as the owl's home range, or areas where it is "likely to occur," because it conformed with the overall recovery purpose of the ESA. The FWS provided the entire relevant sentence from the email cited by the Association as support that its changed terminology was not arbitrary, but rather reflected the agency's improved understanding of the owl's land use based on the best scientific data available: "It looks like most of the 'unoccupied habitat' statements will be changed [in the final rule] to 'suitable habitat outside of PACS,' since what we were really referring to when

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151. See id. at 24.
152. Id. at 41 (quoting 50 C.F.R. § 424.12(e) (2008)).
153. See id. at 14, 17–18.
154. See id. at 33.
155. See id. at 38–39 (quoting MERRIAM WEBSTER'S II NEW COLLEGE DICTIONARY 757 (1995)).
156. See id. at 29.
157. 50 C.F.R. § 424.12(e) (2010); see generally Brief of Defendants-Appellees, Arizona Cattle Growers, No. 08-15810 (9th Cir. Sept. 24, 2008); Brief of Defendant-Intervenor-Appellee, Arizona Cattle Growers, No. 08-15810 (9th Cir. Oct. 8, 2008).
158. See Brief of Defendants-Appellees at 15, Arizona Cattle Growers, No. 08-15810 (9th Cir. Sept. 24, 2008).
159. See supra note 34 and accompanying text.
160. See id.; Brief of Defendant-Intervenor-Appellee at 11, Arizona Cattle Growers, No. 08-15810 (9th Cir. Oct. 8, 2008).
we used the term ‘occupied habitat’ was known nesting sites.”161 The FWS stated that it never intended to limit occupied habitat to PACs because protecting nesting sites without protecting the surrounding areas used for foraging would not help to conserve the species and thus promote the recovery purpose of the ESA.162 Further, the owl’s home range was uncertain.163 The FWS argued that the court should give its definition of “occupied habitat” substantial deference because the “determination of what is an adequate area for the [o]wl to meet its various life-history needs—including nesting, roosting, and foraging—is a technical question that cannot be answered by the Cattle Growers’ dictionary definition.”164

C. THE OPINION

In an opinion by Judge Betty Fletcher, the Ninth Circuit affirmed the district court’s grant of summary judgment in favor of the defendants. It found that the FWS did not arbitrarily treat unoccupied areas as occupied, as the agency’s definition of “occupied” properly reflected the broader recovery purpose of critical habitat designations.165

1. The FWS’s Interpretation of “Occupied” Was Not Arbitrary and Capricious

The court’s holding on the first issue hinged on a question of statutory interpretation concerning the meaning of “occupied” in the ESA’s definition of critical habitat, which Congress left undefined.166 In deciding whether the FWS’s interpretation was proper, the court applied the Administrative Procedure Act’s arbitrary and capricious standard of review.167 It explained that, following Ninth Circuit precedent, the court usually “defers to the agency’s analysis, particularly within its area of competence,” with the caveat that there must be a rational basis for the agency’s conclusions.168

161. Brief of Defendants-Appellees at 34, Arizona Cattle Growers, No. 08-15810 (9th Cir. Sept. 24, 2008).
162. See id. at 25, 34.
163. See id. at 34.
164. Id. at 25.
165. See Arizona Cattle Growers, 606 F.3d 1160, 1166 (9th Cir. 2010). The court also upheld the district court’s decision that the FWS properly applied a baseline approach in analyzing the economic impact of its designation. Id. at 1173. It rooted its reasoning in Ninth Circuit precedent established by Gifford Pinchot Task Force v. U.S. Fish & Wildlife Service, 378 F.3d 1059, 1065 (9th Cir. 2004). Arizona Cattle Growers, 606 F.3d at 1172–73. Gifford Pinchot invalidated the regulation on which the Tenth Circuit in New Mexico Cattle Growers’ Association based its rejection of the baseline approach because the regulation read out the recovery purpose of designating critical habitat. See id. at 1173; Gifford Pinchot, 378 F.3d at 1069–71.
167. See Ariz. Cattle Growers’ Ass’n, 606 F.3d at 1166.
168. See id.
The court noted that Congress divided critical habitat into two categories—occupied and unoccupied areas. While both occupied and unoccupied areas must be essential to the conservation of the species to be designated as critical habitat under the ESA, the court echoed the Association's point that the procedure for establishing unoccupied critical habitat is "more onerous," since the Secretary must "make a showing" that unoccupied areas are essential to the conservation of the species. However, the court did not elucidate what this more burdensome "showing" entails.

The ESA's overriding recovery purpose guided the court's rebuttals of the Association's arguments. Significant to the court's decision to defer to the FWS's definition, the court rejected the Association's claim that the term "occupied" possessed an unambiguous meaning of "resides in," noting that a determination of "whether a species uses an area with sufficient regularity" for it to be considered occupied is "a highly contextual and fact-dependent inquiry." It listed several relevant factors for determining whether an area is occupied, including "the necessity of the area for the species' conservation," and stated that "[s]uch factual questions are within the purview of the agency's unique expertise and are entitled to the standard deference afforded such agency determinations."

While assessing the legitimacy of the FWS's definition of occupied as areas where the owl is "likely to be present," the court considered two components: uncertainty and frequency. It described "uncertainty" as "a factor when the FWS has reason to believe that owls are present in a given area, but lacks conclusive proof of their presence," and frequency as "a factor when owls are shown to have only an intermittent presence in a given area." Based on "ample guidance" from the ESA and case law, the court took a deferential stance on the "uncertainty" element. It stated that, while "the agency must determine critical habitat using the 'best scientific data available,'" this standard does not require that the FWS act only when it

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169. See id. at 1163.
170. See id.
171. See id. at 1166.
172. Id. at 1164 ("The word 'occupied,' standing alone, does not provide a clear standard for how frequently a species must use an area before the agency can designate it as critical habitat. . . . Viewed narrowly, an owl resides only in its nest; viewed more broadly, an owl resides in a PAC; and viewed more broadly still, an owl resides in its territory or home range.").
173. See id. at 1164 ("Relevant factors may include how often the area is used, how the species uses the area, the necessity of the area for the species' conservation, species characteristics such as degree of mobility or migration, and any other factors that may bear on the inquiry.").
174. Id. at 1164–65.
175. See id. at 1163.
176. Id. at 1163–64.
177. Id. at 1164.
178. See id.
179. Id. at 1164 (quoting 16 U.S.C. § 1533(b)(2) (2006)).
can justify its decision with absolute confidence." Thus, the court concluded, since the “ESA accepts agency decisions in the face of uncertainty,” the FWS’s analysis would not be deemed improper merely because it involved an element of uncertainty.

With regard to the “frequency” component, the court rejected the Association’s narrow interpretation because its definition would mean critical habitat would be deemed occupied only if it included PACs. It reasoned that “limiting the agency to designating habitat only where the owl ‘resides’ focuses too narrowly on owl survival and ignores the broader purpose of the critical habitat designation.” For example, the court pointed out that limiting occupied habitat to PACs would exclude 25 percent of the owl’s foraging habitat and the habitat of non-territorial owls that “may not be under constant or uniform use despite frequent owl presence.” The court instead accepted the FWS’s broader interpretation that “where a geographic area is used with such frequency that the owl is likely to be present, the agency may permissibly designate it as occupied.”

2. The FWS Did Not Arbitrarily and Capriciously Treat Unoccupied Areas as Occupied

In light of the court’s deference to the FWS’s broad interpretation of the term “occupied,” the court held that the agency “did not arbitrarily and capriciously treat unoccupied areas as occupied.” In its discussion of the FWS’s analysis of occupied areas, the court cited the agency’s proper use of the owl’s habitat as a proxy, its reliance on “owl calling routes,” and its efforts to identify other evidence of owl presence when PACs were uncertain. The court further pointed out that the FWS excluded areas with few or no owls from its designation of occupied areas.

As to the FWS’s purported shift in approach between earlier agency determinations and the 2004 rule, the court found that the FWS’s inclusion of “suitable areas” outside PACs reflected only “a movement away from an unnecessarily restrictive view” of occupied critical habitat. The court found that this reassessment was not arbitrary because it was based on the FWS’s
increased knowledge of the owl’s population and location. It noted that, while “seeming inconsistencies between FWS’s decisions may shed light on the agency’s process,” the agency was permitted to change its mind if supported by scientific evidence, as was the case in the final rule.

While the court unabashedly supported the FWS’s critical habitat designation in spite of the agency’s prior inconsistent terminology, it did not address the consequence of solely designating occupied critical habitat: a missed opportunity to afford the owl extra protections that would have been triggered by the designation of unoccupied critical habitat. Part III expands upon this problem and discusses possible solutions.

III. THE TROUBLE WITH ARIZONA CATTLE GROWERS AND UNOCCUPIED CRITICAL HABITAT DESIGNATIONS

From an environmentalist’s perspective, the court’s decision was the best outcome for the owl based on the issues before the court. However, the FWS’s failure to designate unoccupied critical habitat, which seemingly arose from a changed perspective, or “evolving” approach, is disturbing in that it reflects a shift away from affording a species the greatest protections possible, especially, as discussed below, against threats resulting from climate change.

The legislative history of the ESA and an FWS regulation seem to suggest there is a “more onerous” process for designating unoccupied critical habitat. In fact, 50 C.F.R. section 424.12(e) clearly states that “[t]he Secretary shall designate as critical habitat areas outside the geographical area presently occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species.” It is worth emphasizing, though, that the ESA’s plain language does not support this supposition since occupied and unoccupied critical habitat are defined similarly. Further, the ESA’s greater protection for unoccupied critical habitat seems to render the regulation inconsistent with the overall recovery purpose of the ESA.

In the next Part, this Note explores the reasons behind the FWS’s failure to designate unoccupied critical habitat, arguing that its motivations were based on politics rather than statutory language or science. It then proposes solutions in the form of regulatory adjustment or judicial review for encouraging the FWS to expand its designation of unoccupied critical habitat.

190. See id. at 1170 n.9.
191. See id. at 1169–70 (citing Nat’l Ass’n of Home Builders v. Defenders of Wildlife, 551 U.S. 644 (2007) (supporting the notion that the FWS could permissibly change its mind)).
192. See id.
193. Id. at 1163.
194. Brief of Petitioner-Appellant at 24, 41, Arizona Cattle Growers, No. 08-15810 (9th Cir. July 24, 2008).
195. 50 C.F.R. § 424.12(e) (2010).
A. The Act's Similar Definitions of Occupied and Unoccupied Critical Habitat and the Fluidity of the Categories Render Their Distinction Ambiguous

Due to the similarity in the definitions of occupied and unoccupied critical habitat, the intended distinction between these categories is not clear. While occupied and unoccupied areas must be essential to the conservation of the species. The ESA's legislative history provides multiple suggestions for defining critical habitat outside of occupied areas, each version included the overlapping definition of "essential to the conservation of the species." One proposed definition of unoccupied critical habitat merely referred readers to the qualifications included in the definition of occupied critical habitat. Further, though one suggested definition required that unoccupied critical habitat contain areas into which the species can be expected to expand naturally, Home Builders Ass'n of Northern California v. U.S. Fish & Wildlife Service established that the FWS could permissibly designate supporting lands essential to a species' conservation that the species will never actually occupy. The consistency in the definitions throughout the legislative history suggests that the inclusion of unoccupied critical habitat as areas essential for the conservation of a species was not a contested issue.

Not only are the two areas' definitions similar, the Services' Endangered Species Consultation Handbook suggests that they are also fluid. The

199. See COMMITTEE, supra note 32, at 879, 898–99. The ESA’s legislative history describes two suggestions for defining unoccupied critical habitat as other than “the specific areas outside the geographical area occupied by the species”: "specific areas periodically inhabited [sic] by the species which are outside the geographic area occupied by the species at the time it is listed . . . (other than any marginal habitat the species may be inhabiting because of pioneering efforts or population stress)” and "specific areas outside the geographical area occupied by the species . . . into which the species can be expected to expand naturally upon a determination by the Secretary at the time it is listed.” Id.
200. See id. at 1081, 1108 ("[W]hen the Secretary so determines, critical habitat for an endangered species can include areas meeting qualifications of paragraph (A) of this subsection into which the species can be expected to expand [n]aturally.").
201. See id. at 898–99.
203. The handbook "provides internal guidance and establishes national policy for conducting consultation and conferences pursuant to section 7 . . . ” U.S. Fish & Wildlife Serv. & Nat’l Marine
handbook definitions explain that occupied habitat may become unoccupied, and vice versa, as the recovery status of the species changes:

“occupied critical habitat”—

critical habitat that contains individuals of the species at the time of the [section 7] project analysis. A species does not have to occupy critical habitat throughout the year for the habitat to be considered occupied (e.g., migratory birds). Subsequent events affecting the species may result in this habitat becoming unoccupied.204

“unoccupied critical habitat”—

“critical habitat not occupied (i.e., not permanently or seasonally occupied) by the listed species at the time of the project analysis. The habitat may be suitable, but the species has been extirpated from this portion of its range. Conversely, critical habitat may have been designated in areas unsuitable for the species, but restorable to suitability with proper management, if the area is necessary to either stabilize the population or assure eventual recovery of a listed species. As recovery proceeds, this formerly unoccupied habitat may become occupied.205

The overlap and fluidity between the definitions suggest that the most important question for the FWS should simply be which areas are essential to the conservation of a species. Yet, section 424.12(e), the FWS’s regulation stipulating that the agency can designate unoccupied areas only when occupied ones are insufficient,206 shifts the conversation unnecessarily toward determining which occupied areas should take priority.

B. The FWS Originally Aimed to Protect Unoccupied Critical Habitat

Despite the lack of designated unoccupied critical habitat in the 2004 final rule, the 1994 proposed rule touted the recovery benefits of designating both occupied and unoccupied critical habitat.207 It stated, “Critical habitat helps focus conservation activities by identifying areas that contain essential habitat features (primary constituent elements), regardless of whether they are currently occupied by the listed species, thus alerting the public and land-

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204. Ariz. Cattle Growers' Ass'n, 606 F.3d at 1165 (citing U.S. FISH & WILDLIFE SERV. & NAT'L MARINE FISHERIES SERV., supra note 203, at 4-34 (1998)).

205. U.S. FISH & WILDLIFE SERV. & NAT'L MARINE FISHERIES SERV., ENDANGERED SPECIES CONSULTATION HANDBOOK xix, 4-34 (1998), available at www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf (emphasis added). The definition further notes that “[s]ome designated, unoccupied habitat may never be occupied by the species, but was designated since it is essential for conserving the species because it maintains factors constituting the species’ habitat. For example, critical habitat may be designated for an upstream area maintaining the hydrology of the species’ habitat downstream.” See id.


managing agencies to the importance of an area in the conservation of a listed species."\textsuperscript{208} The service also stressed the importance of unoccupied critical habitat in areas where commercial timber harvest, a primary threat to the owl, is planned or authorized: "In [areas of commercial timber harvest], the designation of critical habitat can provide protection above the current protection under the Act by protecting unoccupied habitat."\textsuperscript{209} The report indicated a preference, however, for designating occupied areas as critical habitat. It noted that the FWS gave "primary consideration" to occupied areas in evaluating critical habitat units, but "some unoccupied areas were selected if they were important for other reasons (e.g., territory cluster contiguity and linkage)."\textsuperscript{210}

Furthermore, the 1995 recovery plan recommended "a combination of (1) protection of both occupied habitats and unoccupied areas approaching characteristics of nesting habitat, and (2) implementation of ecosystem management within unoccupied but potential habitat" for the conservation of the species.\textsuperscript{211} It even pointed out that "some key unoccupied habitat patches are potentially significant in the expansion of the core population."\textsuperscript{212} The recovery plan also reinforced the concept of fluidity between occupied and unoccupied areas for the owl, as it discussed areas formerly occupied by the owl that "appear[ed] vacant... despite the fact that the habitat has not been altered appreciably."\textsuperscript{213} The FWS observed that this possible population decline "indicate[d] the importance of protecting unoccupied habitat."\textsuperscript{214}

The recovery plan and other scientific studies documenting the importance of unoccupied critical habitat for owl conservation elicit suspicion that the FWS's ultimate failure to designate unoccupied habitat as critical habitat was not driven by science.

\textsuperscript{208} Id. (emphasis added).
\textsuperscript{209} Id. at 63,167. The FWS followed this statement with a vague acknowledgement of other areas "essential to the species' recovery," whose exclusion from the proposed critical habitat designation should not "imply otherwise." Id. The service seemed to indicate that those areas were excluded because the threats that rendered them essential to the conservation of the species (such as oil and gas leasing, grazing, and recreation) were not "significant to the Mexican spotted owl population as a whole," and as such those activities would be "best dealt with through section 7 consultation on the species." Id.
\textsuperscript{210} Id. at 63,167. In the same section, the FWS established that it "may designate unoccupied areas when such areas are essential for the conservation of the species," that "units were selected based on habitat suitability although no surveys had yet been conducted," and that "[a]ll areas selected, however, have potential for supporting Mexican spotted owls." See id.
\textsuperscript{211} U.S. DEP'T OF THE INTERIOR, U.S. FISH & WILDLIFE SERV., RECOVERY PLAN FOR THE MEXICAN SPOTTED OWL 82, 90 (1995), available at http://ecos.fws.gov/docs/recovery_plan/951016.pdf (echoing the 1994 critical habitat designation proposal's critical habitat hierarchy: "Not all lands can or should receive equal protection. We provided guidelines above to protect all occupied nesting and roosting habitat, as well as unoccupied steep slopes and reserved lands. Potential exists, however, for the owl to use other, unoccupied areas. Thus, we provide additional guidelines no maintain and develop potential nesting and roosting habitat now and into the future.").
\textsuperscript{212} Id. at 81 (emphasis added).
\textsuperscript{213} Id. at 100.
\textsuperscript{214} Id.
C. The FWS Is Politically Discouraged from Designating Unoccupied Areas as Critical Habitat Despite the Importance of Unoccupied Habitat to the Conservation of Endangered Species

Though the FWS has expressed its dissatisfaction with the critical habitat designation process in general, it concedes that “[c]ritical habitat may have some marginal value when it covers ‘unoccupied’ habitat which is federally owned or which might be impacted by a Federal activity.” Its reasoning is that, “[i]n those instances, Federal agencies may not already be consulting with the Service, unless other listed species are present.” Despite this determination, outside sources have actively discouraged the FWS from designating unoccupied critical habitat.

In addition to the evidence presented in the legislative history, FWS documents have echoed political pressure to avoid designating unoccupied critical habitat. One example is an April 2004 fax circulated in the FWS’s southwest region that contained the critical habitat guidance handout provided at a congressional hearing by the Assistant Secretary for Fish and Wildlife and Parks. It ordered the FWS’s Division of Endangered Species to “[d]esignate unoccupied habitat only when occupied habitat is insufficient to provide the limited additional conservation benefit of critical habitat.” Further, a 2006 memo circulated by FWS Deputy Director Kenneth Stansell stated that “only if [occupied critical habitat] is not believed sufficient to conserve the species[] would we consider designating habitat that is ‘unoccupied.’” The memo also increased the administrative burden of designating unoccupied critical habitat, requiring that “in the preamble of the rule, there must be a clear and compelling statement why any included areas outside those occupied are considered essential.”

A 2005 email forwarded by the chief of the same division went beyond the concept of circumspection urged in the legislative history of the ESA. It provided FWS employees with instructions from Deputy Assistant Secretary Julie MacDonald that “[n]ew critical habitat proposals are to be limited to the
areas known to be occupied at the time of listing (identified in the final listing rule),” though the final designation could include “other areas [the FWS] believe[s] may be essential to the conservation of the species.”\textsuperscript{224} Several endangered species’ critical habitat designations, including those of the Alameda whipsnake and the wintering piping plover,\textsuperscript{225} reflect the impact of MacDonald’s policy for proposals: exclusion of unoccupied critical habitat from the proposed rule tends to lead to its exclusion from the final rule.

Cracking down on the designation of unoccupied critical habitat seems to follow the overall trend during the George W. Bush administration to curtail critical habitat designations in general by exaggerating their cost inefficiencies.\textsuperscript{226} However, President Barack Obama signaled a change of course when he took office, suspending the Bush administration’s eleventh-hour regulatory change allowing federal agencies to decide for themselves whether their actions would threaten ESA listed species rather than consulting wildlife biologists.\textsuperscript{227} Commentators have thus been optimistic that the new

\textsuperscript{224} Email from Susan Jacobsen, U.S. Fish & Wildlife Serv., entitled Guidance on CH and Petitions (Mar. 30, 2005, 19:40). MacDonald’s instructions, which were issued at a weekly ESA discussion, provided in relevant part:

While [occupied areas] are the only areas that will be specifically proposed as critical habitat, proposed designations can also identify and discuss other areas that we are considering for inclusion in the final critical habitat designation, and ask for public comment on whether those areas should be included in the final designation. Identifying these other areas will put the public on notice that they may be included in a final designation, even though they are not “proposed” as critical habitat. These other areas can include areas now occupied by the species (but not known to be occupied at the time of listing), other areas with the PCEs [primary constituent elements], and other areas we believe may be essential to the conservation of the species. Exceptions to this general approach will be decided on a case-by-case basis, and will be rare.


\textsuperscript{226} See, \textit{e.g.}, PETER UIMONEN \& JOHN KOSTYACK, NAT’L WILDLIFE FED’N, UNSOUND ECONOMICS: THE BUSH ADMINISTRATION’S NEW STRATEGY FOR UNDERMINING THE ENDANGERED SPECIES ACT 4 (2004) (“The Bush administration has reduced by approximately 50 percent the size of critical habitat areas designated for protection relative to the amounts proposed by federal agency biologists. A growing proportion of these cuts are based on the erroneous conclusion that critical habitat protection is too costly: from less than 1 percent of the acres reduced in 2001 to 69 percent in 2003.”); Press Release, Ctr. for Biological Diversity, Environmentalists Challenge More Bush Administration Political Interference in Endangered Species Decisions: Increased Protection Sought for Six Species in Seven Western States (Oct. 3, 2008), available at http://www.enn.com/press_releases/2670.

\textsuperscript{227} See, \textit{e.g.}, Kate Galbraith, \textit{Obama Suspends Bush Rule on Endangered Species}, N.Y. TIMES: GREEN (Mar. 3, 2009), available at http://green.blogs.nytimes.com/2009/03/03/obama-suspends-bush-rule-on-endangered-species/?scp=1&sq=Endangered%2520Species%2520Act&st=cse (“‘Our wildlife are clearly in much better hands now,’ [Carl Pope, the Sierra Club’s executive director, said]. ‘President
administration’s ESA overhaul project will strengthen the conservation power of critical habitat designations.\textsuperscript{228} However, under-designation of unoccupied critical habitat will likely persevere until regulatory and institutional changes reassert the importance of unoccupied critical habitat to achieving the recovery goals central to the ESA.

\textbf{D. The Invalidation or Reinterpretation of Section 424.12(e) May Help Extend Designation to Unoccupied Areas Essential for Species Conservation}

Since the plain language of the ESA does not prioritize the designation of occupied over unoccupied critical habitat, the FWS’s regulation demoting the importance of unoccupied critical habitat, section 424.12(e),\textsuperscript{229} is the only regulatory source outside legislative history discouraging its designation. Given the important role of unoccupied critical habitat in achieving the recovery purpose of the ESA, an invalidation of the regulation could strengthen government protection for endangered and threatened species. Yet taking into account the legislative history of the ESA, court invalidation of the regulation under the \textit{Chevron} inquiry is unlikely. The more viable alternative is for the FWS to render the regulation moot due to threats of climate change to many species listed under the ESA.

\textit{I. A Court Is Unlikely to Invalidate the Regulation under the Chevron Inquiry}

In light of the external pressure on the FWS to avoid designating unoccupied areas as critical habitat, it is unlikely that the agency will voluntarily rework the regulation. However, since courts have exhibited a desire to ensure that all areas essential to the conservation of a species, whether occupied or not, are included in critical habitat designations, there is a possibility that judicial review may remedy the skewed prioritization of section 424.12(e). For example, \textit{Sierra Club v. U.S. Fish and Wildlife Service} held that unoccupied critical habitat may be beneficial for a threatened species, even if

\footnotesize{\textsuperscript{228} Allison Winter, \textit{ESA Overhaul a “Work in Progress” for Obama Admin}, N.Y. TIMES (Dec. 24, 2009), http://www.nytimes.com/gwire/2009/12/24/24greenwire-esa-overhaul-a-work-in-progress-for-obama-admi-21382.html?scp=1&sq=Obama%20ESA&st=cse. This article quoted FWS Director Sam Hamilton as stating that the Service’s “focus is on trying to recover endangered species; our goal is to try to get them off the list. So as long as we keep our eye on that goal and work on definitions and work on policy to further that goal, we’ll be in good shape.” Further, the article revealed that “in response to an outcry from environmentalists and biologists, Congress allowed the Obama administration to retract the Bush rules without going through normal reviews . . . .” See id.

\textsuperscript{229} “The Secretary shall designate as critical habitat areas outside the geographical area presently occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species.” 50 C.F.R. § 424.12(e) (2010).}
not immediately required for its survival, if it assists in the species’ recovery under the ESA.\textsuperscript{230} Center for Biological Diversity v. Norton, a case in a series of suits over previous rules on the owl’s critical habitat designation,\textsuperscript{231} held that land currently unoccupied by the owl, but essential for its conservation, had to be included in designated habitat.\textsuperscript{232} And finally, Home Builders Association of Northern California held that “an area constitutes ‘critical habitat’ if it meets the requirements for occupied habitat or for unoccupied habitat . . . and, in the case of vernal pool complexes, which may change dramatically from year to year, such a classification may be impossible.”\textsuperscript{233}

Yet, if a court takes into account the ESA’s legislative history, section 424.12(e) will likely survive the two-step analysis under Chevron. An inquiry into the validity of an agency’s regulation requires a court to first explore “whether Congress has directly spoken to the precise question at issue.”\textsuperscript{234} It determines congressional intent using the traditional tools of statutory interpretation: the statute’s text, structure, and legislative history, as well as application of the relevant canons of interpretation.\textsuperscript{235} If the intent of Congress is clear, and the regulation reflects that intent, the court must give deference to the agency’s interpretation.\textsuperscript{236} However, “if the statute is silent or ambiguous with respect to the specific issue,” the court must continue to the second step of the analysis.\textsuperscript{237} Here, the court must determine whether the agency’s interpretation is “based on a permissible construction of the statute.”\textsuperscript{238}

As discussed above, the plain language of the statute does not explicitly require that occupied and unoccupied critical habitat exist in a hierarchy.\textsuperscript{239} The text provides that a critical habitat designation can encompass unoccupied areas “upon a determination by the Secretary that such areas are essential for the conservation of the species.”\textsuperscript{240} It is unclear how this requirement is any more stringent than that for occupied critical habitat, which also must be “essential to
the conservation of the species.”\textsuperscript{241} If a court should solely rely on the statute’s text in light of the ESA’s recovery purpose, it seems clear that section 424.12(e), which may lead to the exclusion of areas essential to a species’ conservation, is inconsistent with Congress’s expressed intent and should thus be invalidated.

Yet, the legislative history clearly states that the FWS should “be exceedingly circumspect in the designation of critical habitat outside of the presently occupied area of the species.”\textsuperscript{242} If a court should deem the statute ambiguous and consider this statement in the second step of its \textit{Chevron} analysis, it will likely find that the FWS’s regulation is a permissible interpretation of Congress’s intent, and section 424.12(e) will remain on the books.

2. \textit{A Court Could Find that Climate Change Nullifies the Effect of Section 424.12(e) on Critical Habitat Designations}

Another basis on which to nullify section 424.12(e) involves the concept that critical habitat designations must respond to increasing threats listed species have incurred as a result of climate change.\textsuperscript{243} That is, because rising temperatures are forcing many endangered and threatened species to migrate from their home range,\textsuperscript{244} one could argue that the “present range” of an ESA-listed species would never be “adequate to ensure the conservation of the species.”\textsuperscript{245} Such a finding would render section 424.12(e) moot, as the regulation only allows designation of unoccupied critical habitat in situations where occupied critical habitat is insufficient to ensure the conservation of the species.\textsuperscript{246}

The effects of climate change are contributing to “ecological reshuffling,” where species may attempt to respond to rising temperatures by migrating from their typical habitat.\textsuperscript{247} For example, the average minimum altitude for the habitat of the pika, which is “remarkably well-adapted to the cold, high-altitude, montane habitat,” has dramatically increased over the past 90 years due to rising surface temperature levels.\textsuperscript{248} Further, humans may “disturb ecological systems with potentially dramatic effects on resident species” as they move in response to disturbance regimes caused by climate change, such

\begin{thebibliography}{9}
\bibitem{241} \textit{Id.} § 1532(5)(A)(i). If anything, the text seems to add an additional requirement for the designation of occupied critical habitat since its definition includes a second step concerning “special management considerations or protection.” \textit{See id.; see also supra} note 49.
\bibitem{242} \textit{Committee}, \textit{supra} note 32, at 742.
\bibitem{243} \textit{See Doremus, supra} note 12.
\bibitem{244} \textit{See J.B. Ruhl, Climate Change and the Endangered Species Act, 88 B.U. L. Rev.} 1, 22 (2008).
\bibitem{245} \textit{See 50 C.F.R.} § 424.12(e) (2010).
\bibitem{246} \textit{See id.}
\bibitem{247} \textit{See Ruhl, supra} note 244, at 22.
\bibitem{248} \textit{See id.} at 3–4.
\end{thebibliography}
as floods, fire, and drought. In light of climate change’s unpredictable impacts on endangered species habitat, an environmental plaintiff could argue that the currently occupied critical habitat of species threatened by climate change will always be insufficient to achieve the recovery goals of the ESA, effectively nullifying section 424.12(e).

The FWS could choose on its own volition to determine which listed species are endangered or threatened by climate change, but will likely balk at this potentially difficult challenge. However, the Supreme Court held in *Massachusetts v. EPA* that even if Congress had not considered climate change when it passed a law, this does not permit agencies to ignore the effects of climate change when later implementing the law. CBD’s victories in court forcing the FWS to list and designate critical habitat for the polar bear due to threats from climate change—the largest critical habitat designation in ESA history—suggest further optimism for judicial support in this area.

### CONCLUSION

While *Arizona Cattle Growers* seems to present a victory for the owl, environmentalists should note that expanding the definition of occupied critical habitat could have its drawbacks. Namely, the FWS’s avoidance of designating unoccupied critical habitat is a missed opportunity to afford protections to species in geographical areas where ESA protections would not otherwise apply. Further, unoccupied critical habitat could be key to a species’ recovery as climate change causes ecological reshuffling. Though courts have generally demonstrated a commitment to bolstering the recovery goal of the ESA, declining agency resources may test this commitment.

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249. See id. at 11.
250. See id. at 33.
252. See Ruhl, supra note 244, at 11.
254. See supra notes 102–03 and accompanying text.
255. But see Ruhl, supra note 244, at 49 (“Conducting climate change analyses [for the section 7 consultation process] . . . will improve knowledge about the effects of climate change on species and, thus, is by no means a waste of agency resources.”).

We welcome responses to this Note. If you are interested in submitting a response for our online companion journal, *Ecology Law Currents*, please contact ecologylawcurrents@boalt.org. Responses to articles may be viewed at our website, http://www.boalt.org/elq.