INTRODUCTION

THE ENDANGERED SPECIES ACT AT FORTY: THE GOOD, THE BAD, AND THE UGLY*

By
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I. INTRODUCTION

While the field of animal law has undergone unprecedented growth in recent years, its maturity in the United States (U.S.) is held back by the law's treatment of domestic and captive animals as merely property in most circumstances. Therefore, even though animal advo-

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* *Animal Law Review* hosted its third annual symposium, *The Endangered Species Act at Forty: What It Means for the Animals as America's Strongest Wildlife Law Goes over the* TVA v. Hill, on October 4, 2013 at Lewis & Clark Law School.

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cates have made much progress in enacting an ever-wider variety of legal protections for animals and punishments for people who abuse them, such progress principally stems—legally, at least—from human magnanimity rather than obligation. Whether this state of affairs is ethical is still a foundational debate in discussions about the proper scope and content of laws to protect nonhuman animals.

This undercurrent of humans' ethical responsibilities to other species with which we share the planet makes *Animal Law Review* an ideal forum for assessing the success of what was—to a significant degree—a moral judgment made by Congress forty years ago. By enacting the Endangered Species Act (ESA),[1] Congress affirmed that human actions must no longer be the cause of other species' extinction. In doing so, legislators took a significant step toward realizing Aldo Leopold's ethical argument that humans should see themselves as merely members of the biotic community rather than its masters.[2] Termed by the U.S. Supreme Court as "the strongest law to protect endangered species ever enacted by any nation,"[3] the 1973 Act is truly a landmark piece of legislation to protect natural resources.

The country's ethical commitment to species protection and restoration has weathered stern tests over the last four decades. In *Tennessee Valley Authority (TVA) v. Hill*, the Supreme Court held that the ESA did indeed incorporate strong legal standards to empower legislators' moral judgment, ruling in favor of halting a dam to protect endangered snail darters in the face of near universal derision from the popular press.[4] Lead attorney for the plaintiffs, Professor Zygmunt Plater, who literally passed a hat near the banks of the doomed Little Tennessee River to collect the filing fee for what was to become one of the most important environmental law decisions in history, discussed the history and influence of the *TVA v. Hill* decision at *Animal Law*'s third annual symposium.[5] Congress refused to weaken the law, despite an outcry from some quarters in response to the Supreme Court's decision in that case.[6] A decade later, the Court added refinements to

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1 Endangered Species Act of 1973, 16 U.S.C. §§ 1531–1544 (2012).

2 Aldo Leopold, *A Sand County Almanac: With Essays on Conservation from Round River* 203–04 (Random H. Publg. 1966).

3 *TVA v. Hill*, 437 U.S. 153, 180 (1978).

4 *Id.* at 195.

5 Professor Plater gave the keynote presentation at this year's *Animal Law* symposium. He regaled a packed room at Lewis & Clark Law School with stories and insights from his landmark litigation and his thoughts on the future of the Endangered Species Act after forty years as law.

6 *See* Zygmunt J. B. Plater, *The Snail Darter and the Dam: How Pork-Barrel Politics Endangered a Little Fish and Killed a River* 270–80 (Yale U. Press 2013) (describing the reactions and political maneuvering following the *TVA v. Hill* decision). See *Animal Law* volume 20.1 for a review of Plater's book. Sara Blankenship, Student Author, *From the Halls of Congress to the Shores of the Little T*: The Snail Darter and the Dam: How Pork-Barrel Politics Endangered a Little Fish and Killed a River by Zygmunt J. B. Plater, 20 Animal L. 229 (2013).

the statute designed to enhance species recovery.[7] When bipartisan support for the ESA weakened following the 1994 midterm elections, political forces favoring rollbacks in federal regulations succeeded in putting a temporary hold on new listings of threatened and endangered species.[8] Ultimately, they could not muster the necessary political support to weaken the statute itself. In 2005, the Senate declined to even consider a bill passed by the House of Representatives that would have substantially diminished legal protections for imperiled species and their habitats.[9] Despite the widening gulf between politicians over the necessity of endangered species protections, the public continues to strongly support protecting wildlife in danger of extinction.[10]

But while the country's ethical commitment to halting and reversing many species' slide toward oblivion has remained resolute even in the face of challenge, has the legal framework Congress designed to put this pledge into action actually worked? Is the ESA capable of protecting biodiversity in the face of systemic threats such as climate change, invasive species, and anthropogenic disruption of ecosystem dynamics that scientists have only begun to fully appreciate in the twenty-first century?

The ESA's fortieth anniversary provides an excellent opportunity to consider these questions, as well as reflect on what the future may hold for species conservation efforts in the U.S. *Animal Law* assembled an impressive array of experts to explore these topics, ranging from an environmental law pioneer, to an expert on law and science, to a young attorney devising innovative ways to sue under the ESA to improve protection of captive animals. To provide readers with a brief overview of forty years of the ESA, this Introduction provides one longtime observer's views[11] of what the ESA and the agencies that implement the statute have done well. This Introduction also points to other areas

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[7] *See infra* pt. II(A)(1) (discussing the 1988 Amendments to the ESA relating to recovery plans).

[8] *See infra* pt. II(A)(3) (discussing the one-year moratorium placed on listing any new species under the ESA).

[9] H.R. 2933, 108th Cong. (July 25, 2003).

[10] A 2011 Harris poll found overwhelming public support for the ESA. *See* Harris Interactive, *Endangered Species Act Summary* 1 (2011) (available at http://www.defenders.org/esapoll [http://perma.cc/PP79-4RDE] (accessed Apr. 13, 2014)) (concluding that 84% of the public supports the Endangered Species Act). More targeted surveys have reached similar conclusions. *See e.g.* Mickie Anderson, U. of Fla. News, *New UF/IFAS Survey: Floridians Strongly Support Endangered Species Protections*, http://news.ufl.edu/2013/09/16/endangered-species-protections/ [http://perma.cc/CXW9-N5HN] (Sept. 16, 2013) (accessed Apr. 12, 2014) (finding that most Floridians support legal protections for endangered species).

[11] I still remember vividly the beginning of my own personal experiences with the Endangered Species Act. In 1985, I was a first-year law student, enjoying the newspaper on a spring day at a table in front of the school cafeteria. An op-ed caught my eye; it was entitled *Yellowstone's Grizzly Bears Need Legal Help*. Thinking it would be fun to have grizzly bears as clients someday, I read with interest the author's view on how the ESA should be implemented to better protect bears in the country's flagship national park. For more than twenty-eight years since that day, I have been studying and writ-

where the law or its associated federal bureaucracy seem to have fallen short of realizing the statute's goals of conserving threatened and endangered species and the ecosystems on which they depend.

The remainder of this Introduction considers the ESA's key sections. Part II(A) analyzes issues related to listing and recovery—specifically issues influencing biological diversity, which the ESA aims to protect, as well as issues that set the bar for defining both biological peril and conservation success. Part II(B) examines the reach and success of the ESA's substantive protections for listed species, including the twin prohibitions under Section 7 and the list of prohibited actions under Section 9. Finally, Part III asks whether a law passed four decades ago can remain the bedrock of federal biodiversity protection in light of pervasive threats that scientists did not fully understand in 1973.

The history—and future—of U.S. efforts to halt and reverse many species' slide toward extinction raises fascinating and difficult questions that mix biology, policy, and law. More importantly, the manner in which lawmakers, agencies, courts, and the public in general answer these questions could very well determine the ultimate success of Congress's forty-year ethical commitment to conserving diverse life forms—and thus decide whether generations to come will have the opportunity to witness species ranging from tigers to toads.

II. LOOKING BACK

Lawmakers described the purpose of the Endangered Species Act (ESA) as including recovery of threatened and endangered species as well as the ecosystems upon which these species depend.[12] Though succinctly phrased, actually attaining these purposes represents, for many species, a task with immense biological challenges that are exceeded by the fiscal and political barriers standing in the way of recovery. In keeping with the theme of assessing the success of Congress's ethical commitment to conserving other species, the famous Sergio Leone film, *The Good, the Bad, and the Ugly*,[13] which some critics have called a morality play, provides a useful framework for examining elements of the ESA and its implementation over four decades. Elements that have advanced the statute's conservation purposes could appropriately be labeled *the good*; aspects of the law that have fallen short could be characterized as *the bad*; and ways that we have seriously undermined efforts to protect and restore species through actions and decisions could be termed just plain *ugly*.

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ing about the ESA, as well as litigating under the statute while wearing my other hat as a cofounder of Lewis & Clark's domestic environmental law clinic.

[12] 16 U.S.C. § 1531(b).

[13] *The Good, the Bad, and the Ugly*, Motion Picture (MGM 1966).

A. Listing & Recovery

Section 4 of the ESA serves as a gateway, guiding determinations as to which specific species and populations gain protection under the Act, and driving decisions that pinpoint when a threatened or endangered species no longer needs the Act's safeguards.[14] As a gateway to the Act's substantial substantive protections, Section 4 has often been a battleground—advocates for conserving a particular species (or the ecosystem it inhabits) often square off with those who perceive that a listing might adversely affect (or that a past listing has adversely affected) their land or livelihood.

1. The Good

The ESA itself contains innovations related to listing and recovery that have proven to be effective elements of a comprehensive species conservation strategy. The Obama Administration's commitment to accelerating the pace of listing decisions[15] also strikes a hopeful note toward progress on identifying additional species in need of the Act's protections.

Notably, the ESA allows for protection of a broad array of biological resources. The statute authorizes listing of species that occur anywhere in the world;[16] though international listings offer little or no means of protecting the habitat of species in countries outside the U.S., they provide a powerful tool for the federal government to take action to curtail Americans' participation in commerce involving imperiled species. Congress also amended the Act in 1978 to broaden the definition of "species" eligible for protection to include any "distinct population segment" (DPS) of vertebrate fish and wildlife, a provision that has resulted in protecting the portion of broader populations that occur within the U.S., as well as the listing of distinct populations that are "significant" to their overall species.[17] Though they have sometimes proven controversial, such listings conserve U.S. biological resources, as well as follow Aldo Leopold's admonition to "save all the pieces"[18] by allowing for conservation efforts at a point before an entire species faces extinction. By protecting significant population segments of a broader species, DPS listings help maintain the distribution of species across their historic range and allow those species to play their biotic

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14 16 U.S.C. § 1533.

15 *See e.g.* 74 Fed. Reg. 20421 (May 4, 2009) (undoing the previous Administration's restrictive modifications to the listing and recovery process).

16 16 U.S.C. § 1533(c)(1).

17 Pub. L. No. 95-632, § 2, 92 Stat. 3751, 3572 (1978) (codified at 16 U.S.C. § 1532(16)).

18 *See* Leopold, *supra* n. 2, at 190 ("To keep every cog and wheel is the first precaution of intelligent tinkering.").

role in an ecosystem.[19] Finally, Congress also followed Leopold's admonition to pay particular attention to saving the "small cogs and wheels" of biodiversity by explicitly rejecting a listing priority scheme devised by the U.S. Fish & Wildlife Service (FWS) that would have favored so-called "higher" life forms such as mammals over other species.[20] The agency's current priority scheme classifies species primarily based on the magnitude of threat they face.[21]

Lawmakers also recognized early in the ESA's history that interests opposed to protecting a particular species or population for economic or political reasons could sometimes sway the listing process. In 1982, Congress acted to curtail such influences by emphasizing that FWS and the National Marine Fisheries Service (NMFS)[22] must make listing decisions "solely" on the basis of the best science available.[23] While it is impossible to entirely separate listing determinations from policy choices,[24] this amendment has helped the Services resist political arm-twisting in identifying threatened and endangered species—or has provided plaintiffs with legal ammunition to challenge the Services in instances where they may have succumbed to such pressures.[25]

Despite the Services' very mixed record in implementing the ESA's listing and delisting provisions in good faith and on a timely basis, recent developments in this area fall into the *good* category as well. For many years, Section 4's "warranted but precluded" list has swelled, often including species that have been the subject of listing petitions and whose possible addition to the threatened or endangered

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19 *See e.g.* 68 Fed. Reg. 15804, 15804–06 (Apr. 1, 2003) (discussing the biology, ecology, and historical range of gray wolves as part of FWS's decision to reclassify the gray wolf under the ESA and create three DPSs for the species in the contiguous U.S.).

20 H.R. Conf. Rpt. 97-835 at 21 (Sept. 17, 1982).

21 16 U.S.C. § 1533(f)(1)(A).

22 This Article collectively refers to FWS and NMFS as "the Services."

23 Pub. L. No. 97-304, § 2, 96 Stat. 1411, 1411 (1982) (codified at 16 U.S.C. § 1533(b)(1)(A)).

24 *See* J.R. DeShazo & Jody Freeman, *Congressional Politics*, in *The Endangered Species Act at Thirty: Renewing the Conservation Promise* vol. 1, 68 (Dale D. Goble, J. Michael Scott & Frank W. Davis eds., Island Press 2006) (finding that "members of Congress use their positions on oversight and appropriations committees to prevent [FWS] from complying with the specific provisions of the ESA" and that "[l]isting and funding decisions are influenced to a greater extent by a member's 'institutional identities'—party affiliation, committee jurisdiction, and chamber—than by the [A]ct's evidentiary requirements").

25 *See e.g. Northern Spotted Owl v. Hodel*, 716 F. Supp. 479, 483 (W.D. Wash. 1988) (holding that FWS's failure to provide the necessary support for its decision not to list the northern spotted owl under the ESA was arbitrary and capricious and contrary to law); *see also* D. Noah Greenwald et al., *The Listing Record*, in *The Endangered Species Act at Thirty: Renewing the Conservation Promise* vol. 1, 51, 59 (Dale D. Goble, J. Michael Scott & Frank W. Davis eds., Island Press 2006) (noting that "[f]rom 1991 to 1995, . . . 237 species were listed following litigation. . . . These species had been determined to warrant listing, but the agency had failed to do so.").

lists is especially controversial.[26] Section 4 allows the Services to divert imperiled species away from the threatened or endangered classification if the agencies certify they are making "expeditious progress" to finalize listing determinations on higher priority species.[27] The warranted-but-precluded category is a sort of listing purgatory; such species enjoy no substantive protections under the ESA, and can remain a listing "candidate" indefinitely.[28] However, in 2011 FWS entered into binding settlement agreements with two environmental organizations and agreed on a six-year timeline to make final listing decisions on all 251 species then on the warranted-but-precluded list.[29] These agreements include species, such as sage grouse and wolverines, whose listing could have significant effects over widespread areas.[30]

There are also bright spots in both the structure and implementation of Section 4's provisions related to recovery planning. In 1988—the last time Congress significantly amended the ESA—lawmakers added several provisions detailing mandatory content of recovery plans prepared by the Services to map out conservation strategies for listed species.[31] Section 4 now requires such plans to include "site-specific management actions" needed to promote a species' recovery as well as "objective, measurable criteria which, when met, would result in a determination . . . that the species be removed from the list."[32] These requirements sought to improve upon early recovery plans, whose broadly phrased conservation measures[33] often did little to pro-

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[26] *See* Kristina Alexander, *Warranted but Precluded: What That Means under the Endangered Species Act* 3 (Cong. Research Serv. Jan. 2, 2014) (available at http://www.pennyhill.com/jmsfileseller/docs/R41100.pdf [http://perma.cc/PMD8-66S3] (accessed Apr. 12, 2014)) (providing FWS's *Candidate Notice of Review* (CNOR) figures for 2005 to 2013; CNOR includes species both on the warranted-but-precluded list as well as those candidate species who are set aside because higher priority listings are more important).

[27] 16 U.S.C. § 1533(b)(3)(B)(iii)(II).

[28] *See e.g.* Alexander, *supra* n. 26, at 2 (noting that "species can remain on the warranted but precluded list for years" and that "at least five species deemed 'candidates for possible listing' on the 1991 list are also on the 2013 list").

[29] Stip. Settle. Agreement, *In re Endangered Species Act Section 4 Deadline Litigation*, http://www.fws.gov/endangered/improving_ESA/218963-v1-hhy_071211_exh_1_re_CBD.PDF [http://perma.cc/65BD-KFY9] (D.D.C. July 12, 2011) (Misc. Action No. 10-377 (EGS)) (accessed Apr. 12, 2014) [hereinafter July 2011 Stip. Settle. Agreement]; Stip. Settle. Agreement, *In re Endangered Species Act Section 4 Deadline Litigation*, http://www.fws.gov/endangered/improving_ESA/exh_1_re_joint_motion_FILED.PDF [http://perma.cc/KT6T-532H] (D.D.C. May 10, 2011) (Misc. Action No. 10-377 (EGS)) (accessed Apr. 12, 2014) [hereinafter May 2011 Stip. Settle. Agreement].

[30] July 2011 Stip. Settle. Agreement at 5; May 2011 Stip. Settle. Agreement at 6.

[31] Pub. L. No. 100-478, § 1003, 102 Stat. 2306, 2306–07 (1988) (codified at 16 U.S.C. § 1533(f)(1)–(5)).

[32] 16 U.S.C. § 1533(f)(1)(B)(i)–(ii).

[33] *See e.g.* Galen B. Rathbun & Earl Possardt, U.S. Fish & Wildlife Serv., *Recovery Plan for the Puerto Rico Population of West Indian (Antillean) Manatee* 12 (Dec. 24, 1986) (available at http://www.fws.gov/northflorida/Manatee/Recovery%20Plan/1986_FWS_%20Puerto_Rico_Manatee%20Population_Recovery_Plan.pdf [http://perma.cc/E7RJ-8KFS] (accessed Apr. 12, 2014)) (using broad language, such as "reduce human-re-

vide land and wildlife managers with guidance in designing specific, on-the-ground actions necessary to benefit listed species. On the implementation side, the ESA's lack of a deadline for preparing recovery plans allowed the Services to fall far behind during the 1980s and 1990s in completing plans for many listed species.[34] In recent years, however, a renewed agency emphasis on preparing recovery plans has pushed the total number of U.S. species with approved recovery plans to over three-quarters of the total number of listed species.[35]

2. The Bad

Forty years after Congress enacted the ESA, we still lack a comprehensive idea of when a species warrants protection and at what point a species has successfully recovered. From an overall perspective, the real job of the ESA's listing provisions is to define *what we want* when it comes to biological diversity—what portions of species and subspecies we wish to keep, what portion of a species' historic range should be the focus of restoration efforts, and what level of security against extinction a species should enjoy. When all or an important part of a species or subspecies drops below these desired conditions, it is listed as threatened or endangered, and the relevant Service prepares a plan to restore it;[36] when a species meets or exceeds these conditions, it is either not listed or delisted as recovered.[37] In a very real sense then, Section 4 specifically defines our level of commitment to conserving other species.

One of the most unfortunate hallmarks of implementing Section 4 is that the Services have steadfastly sought over four decades to *avoid* providing general guidelines as to this level of commitment. Unlike other prominent classification schemes for imperiled species,[38] the Services have never more specifically defined the ESA's generic defini-

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lated mortalities," to describe the objectives of the plan); *see also* Cal. Condor Recovery Team, U.S. Fish & Wildlife Serv., *California Condor Recovery Plan* 17 (July 1979) (available at http://www.fws.gov/cno/es/CalCondor/PDF_files/USFWS-1980-Recovery-Plan.pdf [http://perma.cc/8YJ7-SZ7U] (accessed Apr. 12, 2014)) (using similarly broad language such as "mortality must be reduced to the lowest level possible" in describing the plan's objectives).

[34] *See e.g.* Comm. on Sci. Issues in the Endangered Species Act et al., *Science and the Endangered Species Act* 80–81 (Natl. Acad. Press 1995) (noting that as of September 1992, 77% of recovery plans were less than 25% complete).

[35] *See* Aaron M. Haines et al., *Uncertainty in Population Estimates for Endangered Animals and Improving the Recovery Process*, 3 Animals 745, 748 (2013) (noting that a "total of 200 listed terrestrial vertebrate species out of 240 had completed recovery plans").

[36] *See* 16 U.S.C. § 1533(c) (describing the procedure for listing a species as threatened or endangered); *id.* at § 1533(f) (describing the procedure for developing recovery plans).

[37] *See id.* at § 1533(a)(2)(B) (describing the procedure for delisting a species).

[38] *See e.g.* Intl. Union for Conserv. of Nat., *IUCN Red List Categories and Criteria: Version 3.1* 14–15 (2d ed., IUCN 2012) (available at http://portals.iucn.org/library/efiles/documents/RL-2001-001-2nd.pdf [http://perma.cc/6JSK-44HK] (accessed Apr. 12, 2014)) [hereinafter IUCN] (detailing a scheme for classifying species potentially facing extinc-

tions of threatened and endangered. The agencies typically justify this approach as necessary to account for the biological differences between species, allowing the Services to tailor their approach to the unique situation of each species.[39] While this rationale may sound plausible to the general public, biologists can develop a myriad of tools and criteria that can describe biological security in a manner that is comparable across species, such as criteria used by the International Union for Conservation of Nature (IUCN)'s Red List to classify species at risk of extinction.[40] The Services, in contrast, use a "we'll know an endangered or threatened species when we see it" approach that maximizes the agency's discretion to make listing decisions on an ad hoc basis. Coupled with a deferential judicial review standard,[41] the agencies are free to make listing decisions with few, if any, guidelines or constraints. It is thus hardly surprising that the Services' listing decisions follow few discernable standards and, despite lawmakers' admonition not to favor so-called "higher" life forms in the listing process,[42] listings can tend to do just that.[43] The lack of identifiable standards for making listing determinations also makes it easier for the Services to surreptitiously consider politics and other non-biological factors in their listing determinations, despite Section 4's express prohibition of such action.

To the extent that it is possible to discern what the Services see as success under the ESA—i.e., what it looks like for a species to have "recovered," thereby warranting its removal from the threatened or endangered list—the picture looks increasingly bleak and even at odds with Congress's goal for the ESA. The Services have been increasingly

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tion that is used by a number of countries and organizations; this scheme employs objective criteria, which apply to all species, to define its various imperilment designations).

[39] *See e.g. Defenders of Wildlife v. Norton*, 258 F.3d 1136, 1142 n. 9 (9th Cir. 2001) ("The Secretary [of Interior] offers a compelling counterargument to the Defenders' suggested approach: 'A reading of the phrase "significant portion of its range" [as provided in the definitions of *endangered* and *threatened*], that adopts a purely quantitative measurement of range and ignores fact-based examination of the significance of the threats posed to part of the species' range to the viability of the species as a whole, does not carry out the purpose of the statute.'"). The court went on to note that "the percentage of habitat loss that will render a species in danger of extinction or threatened with extinction will necessarily be determined on a case by case basis." *Id.* at 1143.

[40] IUCN, *supra* n. 38, at 16–22 (providing IUCN's criteria for classifying species at risk of extinction).

[41] *Chevron, U.S.A., Inc., v. Nat. Resources Def. Council*, 467 U.S. 837, 844 (1984) ("We have long recognized that considerable weight should be accorded to an executive department's construction of a statutory scheme it is entrusted to administer . . . ." (internal footnote omitted)).

[42] H.R. Conf. Rpt. 97-835 at 21.

[43] *See* Andrea Easter-Pilcher, *Implementing the Endangered Species Act: Assessing the Listing of Species as Endangered or Threatened*, 46 BioScience 355, 358–62 (May 1996) (finding that FWS applied no clear biological thresholds to making decisions about listing and that the agency tended to not list those species unfamiliar or less appealing to the public—such as invertebrates and reptiles—as threatened or endangered until those species surpassed the threat of extinction threshold at which FWS listed other species such as mammals).

willing to forego listing species as threatened or endangered based on "conservation agreements" devised by states, landowners, and even federal agencies to obviate the need for listing and prevent application of the resulting statutory protections.[44] The federal government, however, is getting less and less for its part of the bargain. For example, in 2004, FWS withdrew a proposed rule to list the slickspot peppergrass plant as endangered under the ESA despite findings by a scientific panel that the species faced a 64% chance of extinction over the next century.[45] The agency justified its decision based on its belief that the conservation measures contained in the Candidate Conservation Agreement it had signed with private landowners and others would reasonably ensure that the species would not require listing under the ESA.[46] However, the district court held that "[a]lthough a reasonably expansive conservation agreement had just been signed . . . FWS should have erred on the side of caution, when the best available scientific data indicated that extinction of the slickspot peppergrass was likely to be complete within the next 100 years . . . ."[47] Ultimately, the case was remanded to the agency with directions to reconsider whether to adopt a proposed rule listing the species as either threatened or endangered under the Act.[48]

In another instance, FWS withdrew its proposal to list the dunes sagebrush lizard in New Mexico and Texas in part due to the Texas Conservation Plan (TCP) covering the species and its habitat.[49] Incredibly, however, the TCP does not allow FWS to assess the adequacy of most landowners' conservation commitments, or even to receive information detailing the specific landowners that have signed onto the Plan.[50] The Services' growing willingness to defer to state regulation of wildlife and habitat—even when state-proposed protections for species are quite modest—has effectively lowered the bar for what the federal government views as acceptable state guidelines for at-risk species as well as for the regulatory provisions that are supposed to ensure their continued security.

The federal government itself has also shown an increasing tendency over the years to take a "museum-piece" approach to recovering listed species, both in terms of geographic representation as well as

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[44] U.S. Fish & Wildlife Serv., *Candidate Conservation Agreements* (March 2011) (available at http://www.fws.gov/endangered/esa-library/pdf/CCAs.pdf [http://perma.cc/R8R9-4SMP] (accessed Apr. 12, 2014)).

[45] *Western Watersheds Project v. Foss*, 2005 WL 2002473 at **12–13 (D. Idaho 2005).

[46] *Id.* at *13.

[47] *Id.* at *18.

[48] *Id.*

[49] 77 Fed. Reg. 36872, 36899 (June 19, 2012); *see also* Ya-Wei Li & Tim Male, *Dunes Sagebrush Lizard: The Cautionary Tale of a Candidate Species Denied* 2–6 (Defenders of Wildlife ESA Policy White Paper Series No. 2, 2013) (available at http://www.defenders.org/sites/default/files/publications/defenders-esa-policy-dunes-sagebrush-lizard.pdf [http://perma.cc/ZAX6-NVZD] (accessed Apr. 12, 2014)) (discussing the TCP's shortcomings).

[50] Li & Male, *supra* n. 49, at 5–6.

human actions necessary to maintain species at recovered levels. Gray wolves are the poster species for this trend. In 2009, FWS sought to delist the northern Rocky Mountain DPS of wolves based on three relatively small populations that inhabit only a modest fraction of the species' historic range.[51] FWS was also willing to delist this wolf DPS as recovered, despite the fact that maintaining genetic interaction among the three core populations may depend on wildlife managers capturing and transporting wolves between these populations.[52] Extensive allowances for hunting wolves as well as both state and federal reluctance to protect migratory corridors between the core populations may prevent natural wolf migration.[53] FWS termed such human intervention "a well-accepted practice in dealing with population concerns."[54] However, labeling species that require ongoing human intervention to maintain their security as "recovered" and removing these species from the Act's protected lists is arguably inconsistent with the ESA's emphasis on bringing species to the point at which they are self-sufficient in the wild. For example, FWS noted elsewhere that "[t]he goal of [the ESA's recovery] process is the maintenance of secure, self-sustaining wild populations of species . . . ."[55]

Despite the ESA's "Purposes" section listing recovery of threatened and endangered species as the Act's basic goal,[56] the ESA enters its fifth decade with continuing uncertainty as to what recovery means. Moreover, in an effort to either delist species or avoid listings altogether, the Services are increasingly willing to define conservation success to include relatively small and isolated populations—some of

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[51] 74 Fed. Reg. 15123 (Apr. 2, 2009). The Services have also proposed a policy interpreting the definition of a "significant portion of range" of endangered species very narrowly—another example of the agencies' tendency to place virtually no emphasis on making listing and delisting decisions in a manner that considers a species' representation over its historic range. 76 Fed. Reg. 76987 (Dec. 9, 2011). For additional discussion of this issue, see Carlos Carroll et al., *Geography and Recovery under the U.S. Endangered Species Act*, 24 Conserv. Biology 395, 398 (2010) (noting that the Services' interpretation of "significant portion of its range" is limited to a species' "diminished range at the time they were listed as threatened or endangered," though this may only reflect a "relatively small portion of its historic range").

[52] Bradley J. Bergstrom et al., *The Northern Rocky Mountain Gray Wolf Is Not Yet Recovered*, 59 BioScience 991, 993 (2009) (noting that "USFWS proposes to facilitate genetic exchange among isolated populations through vehicular transport of [northern Rocky Mountain gray] wolves around the DPS").

[53] *See id.* at 992 (describing the effect of "harvest" quotas for the northern Rocky Mountain gray wolf in Idaho, Montana, and Wyoming following the 2009 delisting decision); *see generally* Robert L. Fischman & Jeffrey B. Hyman, *The Legal Challenge of Protecting Animal Migrations as Phenomena of Abundance*, 28 Va. Envtl. L.J. 173 (2010) (discussing common threats to animal migration and challenges in responding to such threats).

[54] 76 Fed. Reg. 61782, 61816 (Oct. 5, 2001).

[55] 63 Fed. Reg. 45446, 45456 (Aug. 26, 1998). For additional discussion of species self-sufficiency as an important goal—and legal requirement—under the ESA, see Daniel J. Rohlf et al., *Conservation Reliant Species: Toward a Biologically-Based Definition* 14–19 (unpublished ms., 2013) (copy on file with *Animal Law*).

[56] *See* 16 U.S.C. § 1531(b) (setting forth the purposes of the ESA).

which may need ongoing human assistance to ensure their long-term persistence—with no concern for the ecosystem effects of this museum-piece strategy.[57]

3. The Ugly

While lawmakers' near unanimous support of the ESA became a relic of the past during the Act's second decade, Congress has nonetheless resisted most efforts to weaken the Act over time. However, a few instances of legislative overreaction to particular events stand out as ugly marks on the ESA's history, the most disappointing of which was the 1979 decision to exempt the construction of the Tellico Dam from the Act altogether.[58] This action followed the Supreme Court's landmark decision in *TVA v. Hill*,[59] and was enacted despite the newly created Endangered Species Committee's refusal to grant the project an exemption from Section 7's requirements in light of the project's abysmal cost–benefit ratio.[60] Congress's decision to disregard the snail darters' plight, in favor of an environmentally and economically destructive white elephant dam, demonstrated the raw power of pork barrel politics.[61] A few years later, Republicans focused efforts on amending the ESA after taking control of both the House and the Senate in the 1994 midterm elections, after which they approved a one-year moratorium on the Services' budget expenditures to add species to the endangered and threatened lists.[62] Though meant as an opening salvo in an effort to enact sweeping amendments to the Act itself, the latter never materialized and the moratorium merely exacerbated FWS's growing listing backlog. In 2005, as part of Congress's reaction to the September 11th terrorist attacks, lawmakers limited the Services' ability to designate critical habitat on land controlled by the Department of Defense, notwithstanding the statute's already sweeping authority to exclude specific areas from critical habitat designations whenever the Services found it was beneficial to do so.[63]

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[57] *But see* Kalyani Robbins, *Missing the Link: The Importance of Keeping Ecosystems Intact and What the Endangered Species Act Suggests We Do about It*, 37 Envtl. Law 573 (2007) (conveying the importance of considering the significance each DPS has to its ecosystem).

[58] Pub. L. No. 96-69, 93 Stat. 437, 449–50 (1979); *see also* Plater, *supra* n. 6, at 322–23 ("It's done. Congress has now passed the bill overruling the Endangered Species Act and all other laws protecting the darter and its river. We sit stunned, our wistful hope that the American legal system was going to decide this long battle on the merits now dashed.").

[59] *TVA v. Hill*, 437 U.S. 153.

[60] Plater, *supra* n. 6, at 312–13, 322–23.

[61] *Id.* at 305–23.

[62] Pub. L. No. 104-6, 109 Stat. 86, 86 (1995).

[63] *See* 16 U.S.C. § 1533(a)(3)(B)(i) (exempting military lands from critical habitat designation under certain circumstances); *id.* at § 1533(b)(2) (allowing the Services to exclude areas from critical habitat designation upon a finding that the benefits of such an exclusion outweigh the benefits of designating the area as critical habitat).

Even among these noteworthy blotches on the ESA itself, Congress's 2011 decision to legislatively delist gray wolves in the northern Rocky Mountains[64] stands out as monument to poor legislative choices. Frustrated with FWS's inability to defend its attempts to delist the population in court, Montana Senator John Tester attached a budget rider that removed the species from the endangered list.[65] Subsequently, the states of Montana, Wyoming, and Idaho have allowed hundreds of wolves to be killed each year by hunters, keeping the wolf population at a small fraction of its former numbers[66] and robbing stressed ecosystems in the West of a species that provides a myriad of ecological benefits.[67]

Not to be outdone by their counterparts on Capitol Hill, FWS officials made a surprising and bold assertion in delisting West Virginia northern flying squirrels in 2008.[68] Though the ESA specifically requires recovery plans to include objective, measurable criteria for determining when to delist a species, FWS termed the flying squirrel recovery plan as merely "guidance" and delisted the species despite the fact that it had not achieved the benchmarks set out in the plan.[69] After a district court overturned the delisting decision as clearly inconsistent with Section 4,[70] the D.C. Circuit agreed with FWS and, in le-

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64 76 Fed. Reg. 25990 (May 5, 2011) (directing the Secretary of Interior to reinstate the 2009 final rule, which delisted the northern Rocky Mountain wolf DPS); *see also* U.S. Fish & Wildlife Serv., *Gray Wolf Recovery and Delisting Questions and Answers* (May 2011) (available at http://www.fws.gov/home/feature/2011/pdf/Wolf_Actions_FAQs.pdf [http://perma.cc/A73H-KTFM] (accessed Apr. 12, 2014)) ("Congress' requirement that the Service delist wolves in Montana and Idaho is consistent with the Service's conclusion that the Northern Rocky Mountain Gray Wolf is recovered in those states. . . . As such, this is an unusual situation. The Service is required to respond to Congressional directives, including this one.").

65 *See* Phil Taylor, N.Y. Times, *Wolf Delisting Survives Budget Fight, as Settlement Crumbles*, http://www.nytimes.com/gwire/2011/04/11/11greenwire-wolf-delisting-survives-budget-fight-as-settle-61474.html [http://perma.cc/Y2EZ-ESDJ] (Apr. 11, 2011) (accessed Apr. 12, 2014) (describing Senator Tester's role in delisting gray wolves).

66 *Compare* Bergstrom et al., *supra* n. 52, at 997 (noting that at the time of delisting of the Northern Rocky Mountain gray wolf DPS, there were approximately 1600 individuals) *with* Jeff Black, NBC News, *Protected No Longer, More than 550 Gray Wolves Killed This Season by Hunters and Trappers*, http://usnews.nbcnews.com/_news/2013/03/06/17213786-protected-no-longer-more-than-550-gray-wolves-killed-this-season-by-hunters-and-trappers [http://perma.cc/NX5M-6UDT] (Mar. 6, 2013) (accessed Apr. 12, 2014) ("More than 550 gray wolves have been killed by hunters and trappers in Montana, Idaho and Wyoming this season . . . . Add in the number of wolves killed by federal Wildlife Service agents because they are a threat to livestock . . . and it's not clear that these levels are sustainable . . . .").

67 *See e.g.* John Pickrell, Natl. Geographic News, *Wolves' Leftovers Are Yellowstone's Gain, Study Says*, http://news.nationalgeographic.com/news/2003/12/1204_031204_yellowstonewolves.html [http://perma.cc/RF8F-69TP] (Dec. 4, 2003) (accessed Apr. 12, 2014) (explaining that scientific research after wolves' reintroduction to the Yellowstone ecosystem demonstrated that wolves' hunting and scavenging behavior leads to substantial ecological benefits).

68 73 Fed. Reg. 50226 (Aug. 26, 2008).

69 *Id.*

70 *Friends of Blackwater v. Salazar*, 772 F. Supp. 2d 232, 245 (D.D.C. 2011).

gal reasoning perhaps fitting with the opinion's ill-advised result, equated the agency's decision to ignore the recovery plan's clear biological benchmarks with a traveler's decision to change his plans to visit a friend on his way to Chicago.[71] FWS's new interpretation of when it can delist species calls into serious question the relevance of recovery planning, and as also noted above, gives the Services virtually unfettered discretion to simply declare a species recovered whenever it deems the population to no longer need protection. This broad authority—not even bounded by the recovery plans prepared by the Services themselves—threatens to provide cover for the agencies to make delisting determinations based on factors other than the best science available.

B. The Prohibitions

A series of prohibitions lie at the heart of the ESA's protections for species included on the protected lists. Federal agencies must ensure that their actions do not jeopardize the continued existence of listed species or destroy or adversely modify their designated critical habitat.[72] Moreover, virtually everyone must avoid trafficking in most protected species as well as refrain from "taking" such species[73]—a broad category of actions that includes alteration of habitat that actually kills or injures protected species.[74] The ESA's prohibition on take has proven to be particularly controversial because it can essentially make the ESA a federal land use statute. However, federal regulation of state and private land is an essential component of a national biodiversity protection scheme because most threatened and endangered species have the majority of their habitat on nonfederal land.[75]

1. The Good

As the Supreme Court's decision in *TVA v. Hill* dramatically illustrated, Section 7's twin prohibitions against jeopardy to listed species and destruction or adverse modification of their critical habitat have real teeth. To ensure that federal agency actions do not run afoul of these provisions, Section 7(a)(2) requires consultation with either FWS

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[71] *Friends of Blackwater v. Salazar*, 691 F.3d 428, 434 (D.C. Cir. 2012).

[72] 16 U.S.C. § 1536(a)(2).

[73] *Id.* at § 1538(a)(1).

[74] *Id.* at § 1532(19) (defining "take" as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct"). Regulations define the term "harm" within the statutory definition of "take" to include habitat modification that results in the actual death or injury to protected species. 50 C.F.R. § 17.3 (2012) (providing FWS's definition of "harm"); 50 C.F.R. § 222.102 (2012) (providing NMFS's definition of "harm").

[75] U.S. Gen. Acctg. Off., Rpt. to Cong. Requesters, *Endangered Species Act: Information on Species Protection on Nonfederal Lands*, GAO/RCED-95-16 at 1 (Dec. 1994) (available at http://www.gao.gov/assets/230/220827.pdf [http://perma.cc/C246-Y42Z] (accessed Apr. 12, 2014)) (indicating that as of May 1993, over 90% of then-listed species had habitat on nonfederal lands).

or NMFS (or sometimes both Services) to get "advice" in the form of a biological opinion, as to whether their proposed actions are likely to violate one or both of these standards.[76] Though the Services engage in thousands of consultations each year under Section 7, they rarely find that a proposed project will cause jeopardy to a listed species or destroy critical habitat.[77] While this reflects numerous problems with Section 7's substantive standards,[78] the lack of such findings also reflects the fact that Section 7 has contributed enormously to the conservation of listed species and their habitats through its required procedures.

Section 7 effectively forced all federal agencies whose actions may affect listed species or their critical habitat to share at least some degree of decision-making authority over those actions with the Services. Not only does this consultation process empower the relevant Service to write a biological opinion that can effectively halt or alter any action by a federal agency,[79] it also provides the Services with additional leverage points over the agency. If an action agency determines that its proposed action is "not likely to adversely affect" listed species or critical habitat, Section 7 allows the agency to engage in "informal consultation,"[80] rather than the formal consultation procedure. However, the relevant Service must concur in writing with the agency's determination that the project will not cause adverse impacts to species or critical habitat.[81] This often provides the Services with substantial leverage over the design of federal agency actions in return for their

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[76] The U.S. Supreme Court discussed Section 7's consultation process in *Bennett v. Spear*, 520 U.S. 154, 170 (1997). Although a biological opinion by the relevant Service is technically advice to the federal agency ultimately determining whether to undertake the project, the Court noted that the conclusion reached by the biological opinion has a "virtually determinative effect" on the outcome of that decision. *Id.*

[77] U.S. Gen. Acctg. Off., Briefing Rpt. to the Chairman, Comm. on Sci., Space, & Tech., H.R., *Types and Number of Implementing Actions*, GAO/RCED-92-131BR at 19 (May 1992) (available at http://www.gao.gov/assets/80/78420.pdf [http://perma.cc/LNK7-736U] (accessed Apr. 12, 2014)); Daniel J. Rohlf, *Jeopardy under the Endangered Species Act: Playing a Game Protected Species Can't Win*, 41 Washburn L.J. 114, 151 (2001).

[78] *See infra* pt. II(B)(2) (discussing the difficulties in successfully proving a Section 7 violation); *see also* Rohlf, *supra* n. 77 (showing the rarity in which a court will find that a proposed project will violate Section 7).

[79] 16 U.S.C. § 1536(b). If the relevent Service finds that a proposed federal action is likely to jeopardize a listed species or destroy or adversely modify its critical habitat, the Service must provide, if available, "reasonable and prudent alternatives" (RPA) to the proposed agency action that, if adopted by the federal agency, would not result in a violation of Section 7. *Id.* at § 1536(b)(3)(A). The agency almost always adopts the Service's suggested RPAs. *See* Donald Barry et al., World Wildlife Fund, *For Conserving Listed Species, Talk Is Cheaper Than We Think: The Consultation Process under the Endangered Species Act* (Feb. 1992) (available at http://www.nativefishlab.net/library/textpdf/15635.pdf [http://perma.cc/3DZT-MB48] (accessed Apr. 12, 2014)) (discussing findings from a five-year study examining FWS and NMFS consultation process results).

[80] 50 C.F.R. § 402.14(b) (2012).

[81] *Id.*

concurrence with agencies' "not likely to adversely affect" conclusions. In 2000, the U.S. Forest Service and the Bureau of Land Management signed a memorandum of agreement with the Services that sought to "streamline" the Section 7 consultation process for forest management by creating teams composed of representatives from both land managers and the Services to plan management activities.[82] This arrangement makes certain that the needs of listed species are incorporated into the initial planning and design of agency projects.[83] The Services have since signed a variety of other similar "streamlining" agreements with a variety of federal and state agencies that incorporate species and habitat protection measures into project design and implementation.[84] The Section 7 consultation process has thus gone a long way toward helping to incorporate the needs of threatened and endangered species to projects themselves.

The expansive definition and application of another key ESA prohibition also gives most listed species and their habitat significant protection no matter where they live. Section 9 bans the taking of endangered and most threatened species.[85] The path-breaking litigation in *Palila v. Hawaii Department of Land & Natural Resources*[86] highlighted the ESA's expansive definition of take to include harm to protected species, which includes habitat modification that results in death or injury to listed individuals.[87] Given that Section 9's prohibitions apply broadly to nearly everyone, the ESA is—or at least has potential to be—a federal land use statute that applies on federal and nonfederal land alike.

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[82] Memorandum of Agreement, Endangered Species Act Section 7 Programmatic Consultations and Coordination among Bureau of Land Management, Forest Service, National Marine Fisheries Service, and Fish and Wildlife Service 1 (Aug. 30, 2000) (available at http://www.fs.fed.us/biology/resources/pubs/tes/MOA-final_000830.rtf [http://perma.cc/4C8Z-2EVM] (accessed Apr. 12, 2014)).

[83] *Id.* at 11–12.

[84] *See e.g.* Master Memorandum of Understanding between U.S. Department of the Interior, Fish and Wildlife Service Region 2, and State of Arizona, Arizona Game and Fish Commission: Roles and Responsibilities for Implementing the Endangered Species Act in Arizona 1 (Aug. 11, 2008) (available at http://www.fws.gov/southwest/es/arizona/Documents/ESAGuidance/AGFD_MOA.pdf [http://perma.cc/J3PL-KY7L] (accessed Apr. 12, 2014)) ("The purpose of this MOU is to facilitate joint participation, communication, coordination, and collaboration between the FWS and Commission and Department, regarding implementation of the ESA within the State of Arizona."); Inter-agency Memorandum of Agreement Regarding Oil Spill Planning and Response Activities under the Federal Water Pollution Control Act's National Oil and Hazardous Substances Pollution Contingency Plan and the Endangered Species Act 1–2 (July 22, 2001) (available at http://www.nrt.org/Production/NRT/NRTWeb.nsf/AllAttachmentsByTitle/A-259ES-AMOU/$File/ESAMOA.pdf?OpenElement [http://perma.cc/7VTA-KNGY] (accessed Apr. 12, 2014)) ("With adequate planning and ongoing, active involvement by all participants, impacts to listed species and critical habitat and the resulting need to conduct subsequent ESA Section 7(a)(2) consultations will be minimized or obviated.").

[85] 16 U.S.C. § 1538(a).

[86] *Palila v. Hawaii Dept. of Land & Nat. Resources*, 852 F.2d 1106 (9th Cir. 1988).

[87] 50 C.F.R. § 17.3; *Palila*, 852 F.2d at 1108.

Section 9's take restrictions have also handed the Services significant leverage over federal projects. In most cases where an action agency determines that its proposed action is likely to adversely affect a listed species, the Service—in its biological opinion—concludes that the project will take individual members of that species.[88] In 1982, Congress authorized the Services to immunize agencies' takes of protected species that are not the aim of the project through inclusion of an "incidental take statement" in the project's biological opinion.[89] However, this incidental take statement also must include "reasonable and prudent measures"—and associated terms and conditions to implement these measures—that will minimize incidental take caused by the project.[90] These modifications to the project are effectively nondiscretionary. While these measures are supposed to result in only minor changes to the proposed action,[91] in practice this authority gives the Services leverage to integrate additional protections for listed species into a federal agency's day-to-day operations.

At least in theory, Section 9's take prohibition gives the Services extensive authority over actions that affect listed species on nonfederal land as well. While the Services have very seldom attempted to prosecute nonfederal actors for unintentionally harming listed species through an action's adverse impacts on habitat, private plaintiffs more often take advantage of the ESA's citizen-suit provision to seek injunctive relief against nonfederal landowners and project operators.[92] This potential "stick" of enforcement, coupled with the "carrot" of gaining long-term regulatory certainty,[93] has prompted many nonfederal entities to take advantage of a provision added to the statute by Congress in 1982 that allows the Services to issue incidental take permits that shield their holders from liability under Section 9.[94] In return, a permit applicant must commit to a conservation plan that provides at least some benefits to listed species and their habitat.[95] Through this mechanism, millions of acres of habitat for listed species on nonfederal

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[88] *See e.g.* U.S Fish & Wildlife Serv., *Biological Opinion for the US 95 Clearwater Bridge Scour Mitigation* 35 (Apr. 23, 2013) (available at http://www.fws.gov/idaho/publications/BOs%20for%20Website%20June%202013/13_F_0137_US95ClearwaterRivr BridgeScourMitigation.pdf [http://perma.cc/9VUG-E3EG] (accessed Apr. 12, 2014)).

[89] Pub. L. No. 97-304, § 4, 96 Stat. 1411, 1417–18 (1982) (codified at 16 U.S.C. § 1536(b)(4)(C)).

[90] 16 U.S.C § 1536(b)(4).

[91] 50 C.F.R. at § 402.14(i)(2).

[92] *See e.g. Animal Welfare Inst. v. Beech Ridge Energy LLC*, 675 F. Supp. 2d 520 (D. Md. 2009) (private plaintiffs utilizing the ESA's citizen-suit provision to bring suit against a project operator).

[93] 63 Fed. Reg. 8859, 8870 (Feb. 23, 1998) (amending 50 C.F.R. § 17.22 and 50 C.F.R. § 17.32) ("This final rule will provide non-Federal entities regulatory certainty pursuant to an approved incidental take permit under section 10(a)(1)(B) of the [ESA].").

[94] Pub. L. No. 97-304, § 6, 96 Stat. 1411, 1422 (1982) (codified at 16 U.S.C. § 1539(a)(1)(A)).

[95] 16 U.S.C. § 1539(a)(2)(A).

land are subject to at least management guidelines designed to benefit those species.[96]

2. The Bad

While the Clean Water Act takes a theoretically conservative approach to protecting a scarce resource by striving for no net loss of wetlands,[97] Congress has devised a strategy for protecting threatened and endangered species under the ESA that has increasingly proved problematic. Rather than similarly banning net adverse impacts to listed species and their habitat, Section 7's most prominent restriction embodies the theory that federal actions can continue to adversely impact listed species and their critical habitat so long as they do not go *too* far—specifically, push a listed species to the point of jeopardizing its continued existence.[98] Then, as the ESA's regulatory theory goes, over time, actions to promote species recovery also carried out by federal agencies (and hopefully states and private landowners) will more than make up for any reductions in species' security that are allowed under the jeopardy standard, and listed species will eventually recover.

It is perhaps not surprising that this theory has often not proved overly successful in practice. This stems in significant part from the definition of jeopardy itself. The Services assess whether a proposed federal action is likely to jeopardize the continued existence of a listed species in reference to the entire species, not just the portion of the species affected by a given project.[99] In other words, unless a single federal project undergoing Section 7 consultation is likely to jeopardize the *entire* listed species, the project cannot be found to run afoul of Section 7. This interpretation of the jeopardy standard sets up a sort of "straw that breaks the camel's back" analysis, meaning that the relevant Service continues to give its approval to projects that adversely

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[96] Wash. Forest Protec. Assn., *HCPs Help Reduce Effects on Vulnerable Species*, http://www.wfpa.org/forest-policy/environmental-law/habitat-conservation-plan/ [http://perma.cc/B8VT-5NYP] (accessed Apr. 12, 2014) ("More than 475 [conservation plans] have been approved covering hundreds of species on nearly 31 million acres in the United States.").

[97] Memorandum of Agreement between the Department of the Army and the Environmental Protection Agency: The Determination of Mitigation under the Clean Water Act Section 404(b)(1) Guidelines § 2(B) (available at http://water.epa.gov/lawsregs/guidance/wetlands/mitigate.cfm [http://perma.cc/JQG5-5QC5] (accessed Apr. 12, 2014)) ("In focusing the goal on no overall net loss to wetlands only, EPA and Army have explicitly recognized the special significance of the nation's wetlands resources. . . . Consequently, it is recognized that no net loss of wetlands functions and values may not be achieved in each and every permit action.").

[98] 16 U.S.C. § 1536(a)(2).

[99] Natl. Marine Fisheries Serv. & U.S. Fish & Wildlife Serv., *Endangered Species Consultation Handbook: Procedures for Conducting Consultation and Conference Activities under Section 7 of the Endangered Species Act* ch. 4, 37–38 (Mar. 1998) (available at http://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf [http://perma.cc/6SQ5-WUFU] (accessed Apr. 12, 2014)) [hereinafter *Consultation Handbook*].

impact a listed species up to the point that the species as a whole can withstand no additional incremental adverse impacts.

It is rare indeed that the relevant Service finds a project's impacts to be that final straw for a given species. It is, of course, very difficult to pinpoint when one additional small harmful effect will put an entire species at too great a risk. Moreover, neither FWS nor NMFS have ever specifically defined jeopardy itself beyond the rather vague regulatory definition of this term—to "reduce appreciably" the likelihood of a species' survival and recovery.[100] This ambiguity inherent in Section 7's key standard provides the Services with extremely broad discretion to continue to authorize incremental adverse impacts to listed species. As a result, over the ESA's four decades, many listed species have been "nickeled-and-dimed" toward extinction.

Restrictive interpretations of the ESA's substantive protections have also limited recovery "additions" to the statute's equation that supposedly more than balances allowed adverse impacts with conservation benefits. The Services have consistently construed the statute to limit its requirements to promote recovery of listed species. They have all but ignored Section 7(a)(1), which directs all federal agencies, in consultation with the Services, to use their authorities to carry out actions to recover listed species.[101] In contrast to the detailed regulatory provisions implementing the prohibitions of Section 7(a)(2),[102] no regulations exist to interpret and implement Section 7(a)(1). The Services formulate recovery plans that set forth specific measures to conserve covered species, but the Services and other federal agencies do not consider recovery plans to be decision documents,[103] and courts have almost universally held that federal agencies have broad discretion as to when to implement—or not implement—the measures set forth in a plan.[104] The Services' limited implementation of recovery mandates also carries over to nonfederal land; while the Services encourage nonfederal applicants for an incidental take permit to provide benefits toward recovery of affected species, they only require the con-

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100 50 C.F.R. at § 402.02.

101 16 U.S.C. § 1536(a)(1).

102 50 C.F.R. at § 402.14.

103 Natl. Marine Fisheries Serv. & U.S. Fish & Wildlife Serv., *Interim Endangered and Threatened Species Recovery Planning Guidance Version 1.3* § 1.1-1 (updated June 2010) (available at http://www.fws.gov/endangered/esa-library/pdf/NMFS-FWS_Recovery_Planning_Guidance.pdf [http://perma.cc/PNW9-FEYH] (accessed Apr. 12, 2014)).

104 *See Fund for Animals, Inc. v. Rice*, 85 F.3d 535, 548 (11th Cir. 1996) (explaining that "the Recovery Plan is not a document with the force of law divesting all discretion and judgment from the [FWS]"); *Defenders of Wildlife v. Lujan*, 792 F. Supp. 834, 835 (D.D.C. 1992) ("The Recovery Plan itself has never been an action document."); *see also Natl. Wildlife Fedn. v. Natl. Park Serv.*, 669 F. Supp. 384, 389 (D. Wyo. 1987) ("This Court will not attempt to second guess the Secretary's motives for not following the recovery plan. . . . [T]he Secretary could reasonably have concluded that the implementation of such a plan should be stayed until the results of this new analysis become available . . . .").

servation plans to avoid jeopardizing listed species in order to secure an incidental take permit.[105]

3. The Ugly

It is worth repeating that Section 7 has two substantive prohibitions, banning federal agencies from taking actions that either jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat of those species.[106] Unfortunately, the Services have quite deliberately attempted to downplay the latter prohibition for much of the ESA's forty-year history.

Congress also has not made it any easier to protect critical habitat. In the 1978 ESA amendments, lawmakers allowed the Services to exclude land from critical habitat designation if they determine that the benefits of exclusion, including economic benefits, outweigh the benefits to the species from designation.[107] Courts interpreted this as requiring the Services to conduct an economic analysis of all critical habitat designations, and in the Tenth Circuit, under the National Environmental Policy Act (NEPA) as well.[108] This added administrative time and significant cost to the critical habitat designation process, which is already extremely controversial, simply because federal agencies delineating areas on maps—especially areas that can encompass nonfederal land—is an action guaranteed to draw the attention and scrutiny of interests across the political spectrum.

For many years, FWS in particular avoided the political hullabaloo and administrative costs of critical habitat by simply avoiding critical habitat designations.[109] When a pivotal decision by the Ninth Circuit forced the agency to systematically designate critical habitat for most species,[110] FWS attempted to minimize the consequences of these designations by insisting that Section 7's protection of critical

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105 U.S. Fish & Wildlife Serv. & Natl. Marine Fisheries Serv., *Habitat Conservation Planning and Incidental Take Permit Processing Handbook* ch. 3, 20–21 (Nov. 4, 1996) (available at http://www.fws.gov/endangered/esa-library/pdf/HCPBKTOC.PDF [http://perma.cc/B5T8-2GWY] (accessed Apr. 12, 2014)).

106 16 U.S.C. § 1536(a)(2).

107 Pub. L. No. 93-632, § 3, 92 Stat. 3751, 3758 (codified at 16 U.S.C. § 1533(b)(2)) (allowing areas to be excluded from critical habitat designation if the benefits of designation are outweighed by economic impacts, national security impacts, or other relevant impacts—unless extinction will result from exclusion).

108 *See New Mexico Cattle Growers Assn. v. U.S. Fish & Wildlife Serv.*, 248 F.3d 1277, 1285 (10th Cir. 2001) ("conclud[ing] Congress intended that the FWS conduct a full analysis of all the economic impacts of a critical habitat designation"); *Catron Co. Bd. of Commrs. v. U.S. Fish & Wildlife Serv.*, 75 F.3d 1429, 1436 (10th Cir. 1996) ("[W]e conclude that the Secretary must comply with NEPA when designating critical habitat under [the] ESA.").

109 James Salzman, *Evolution and Application of Critical Habitat under the Endangered Species Act*, 14 Harv. Envtl. L. Rev. 311, 335–38 (1990).

110 *Nat. Resources Def. Council v. U.S. Dept. of the Interior*, 113 F.3d 1121, 1127 (9th Cir. 1997) (holding that the "Service failed to discharge its statutory obligation to designate critical habitat when it listed the gnatcatcher as a threatened species, or to articulate a rational basis for invoking the rare imprudence exception").

habitat did not provide listed species with any substantive protections beyond those already provided by the jeopardy standard.[111] Several appellate courts struck down FWS's position, most notably the Ninth Circuit in a 2004 decision invalidating the Services' regulatory definition of "destruction or adverse modification" in the context of Section 7.[112] These opinions highlighted the importance of critical habitat to protecting listed species' recovery, citing the statutory definition of critical habitat as the area essential to the conservation—synonymous in the ESA with recovery—of listed species and distinguishing protection of critical habitat from the jeopardy standard's emphasis on merely ensuring the bare survival of protected species.[113] Yet, despite these judicial rebukes, the Services have not only failed to promulgate a valid regulatory definition of critical habitat for almost a decade after rejection of the old definition, they have often continued to insist that critical habitat provides species with minimal additional protections.[114]

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111 *See* Thomas F. Darin, *Designating Critical Habitat under the Endangered Species Act: Habitat Protection versus Agency Discretion*, 24 Harv. Envtl. L. Rev. 209, 225–26 (2000) (illustrating the Services' attempts to minimize the impact of critical habitat designation, specifically by conflating Section 7 critical habitat protections with Section 7 jeopardy-based protections); Dave Owen, *Critical Habitat and the Challenge of Regulating Small Harms*, 64 Fla. L. Rev. 141, 153, 156–57 (2012) (discussing conflation of Section 7 critical habitat and Section 7 jeopardy protections, specifically the Services' contention that critical habitat protections are redundant); Kieran F. Suckling & Martin Taylor, *Critical Habitat and Recovery,* in *The Endangered Species Act at Thirty: Renewing the Conservation Promise* vol. 1, 75, 76–79 (Island Press 2005) (reviewing the Department of the Interior's treatment of critical habitat designation as redundant with jeopardy-based protections, cumulating in deliberate conflation of critical habitat and jeopardy protections).

112 *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv.*, 378 F.3d 1059, 1069 (9th Cir. 2004); *see also Sierra Club v. U.S. Fish & Wildlife Serv.*, 245 F.3d 434, 441–42 (5th Cir. 2001) (finding FWS's destruction/adverse modification standard "imposes a higher threshold than the statutory language permits"); *New Mexico Cattle Growers Assn.*, 248 F.3d at 1283 (noting that FWS's conflation of jeopardy and critical habitat has "been the cause of much confusion").

113 *See e.g. Gifford Pinchot Task Force*, 378 F.3d at 1070 (explaining that "the ESA was enacted not merely to forestall the extinction of species (i.e., promote a species survival), but to allow a species to recover to the point where it may be delisted. . . . Clearly, then, the purpose of establishing 'critical habitat' is for the government to carve out necessary territory that is not only necessary for the species' survival but also essential for the species' recovery." (internal citations omitted)).

114 *See* 50 C.F.R. § 402.02(d) (2012) (tautologically defining critical habitat as "an area designated as critical habitat listed in 50 CFR parts 17 or 226 [which are lists of areas currently designated as critical habitats]"—in other words, a habitat is critical when the Services say it is); *see also* Defs.' Memo. in Opposition to Pl.'s Mot. for S.J., *Butte Envtl. Council v. U.S. Army Corps of Engrs.*, 2008 WL 5180872 at *25 (E.D. Cal. Oct. 30, 2008) (No. 2:08-CV-01316-GEB CMK) [hereinafter *Defs.' Memo.*] (relying upon the Services' *Consultation Handbook* to argue that negative impacts upon a critical habitat do not trigger jeopardy or adverse modification protections unless they are sufficiently extensive as to impact the species as a whole); *c.f. Butte Envtl. Council v. U.S. Army Corps of Engrs.*, 620 F.3d 936 (9th Cir. 2010) (accepting the *Consultation Handbook*'s treatment of critical habitat).

In a final blow to the effectiveness of critical habitat designations for promoting species recovery, the Services have interpreted Section 7's ban on destruction or adverse modification of critical habitat to essentially eliminate the site-specific application of this prohibition.[115] Like jeopardy, the Services look to an entire critical habitat designation as the reference point for assessing whether a specific federal agency proposal runs afoul of Section 7.[116] As a consequence, the Services do not assess whether an individual proposed action destroys or modifies a given area of designated critical habitat; rather, they ask whether the impacts of a proposed federal action destroy or adversely modify the ability of *all* designated critical habitat for the particular species to provide for the conservation of that species.[117] The Ninth Circuit upheld this interpretation when it affirmed an FWS biological opinion concluding that completely filling over 250 acres of wetlands designated as critical habitat for vernal pool species did not constitute destruction or adverse modification of that critical habitat because the acreage impacted by the project was only a small percentage of the overall critical habitat designation for the species.[118] This allows the Services to define actual destruction of critical habitat to not constitute either legal destruction or adverse modification, and thus has resulted in similar nickel-and-dime impacts to critical habitat as under the straw-that-breaks-the-camel's-back approach to jeopardy.[119]

Finally, the Services' own joint consultation handbook for implementing Section 7's prohibitions marks perhaps the ugliest flaw in their implementation of the ESA. The *Consultation Handbook* describes a national system for tracking the additive adverse impacts on species and critical habitat approved by the Services through the Section 7 consultation process. This scheme would allow the Services to effectively track the current status of listed species and their critical habitat, thus enabling them to assess whether new proposed federal

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115 *E.g.* Br. of U.S. Army Corps of Engrs. and U.S. Fish & Wildlife Serv., *Butte Envtl. Council v. U.S. Army Corps of Engrs*., 2009 WL 2444977 at **45–48 (9th Cir. June 2009) (No. 09-15363) ("[I]t was within the broader context of the species' entire critical habitat that FWS made its 'no adverse modification' finding."); *Defs.' Memo.* at **26–27 ("Plaintiff here attempts to amplify the adverse effects by focusing on the localized analysis, rather than acknowledging that FWS' statutorily-mandated inquiry is broader, dictated by the scope of the critical habitat designation.").

116 *See Consultation Handbook*, *supra* n. 99, at ch. 4, 35–37 (describing the Services' analysis for determining whether a proposed action will result in the destruction or adverse modification of a critical habitat).

117 *Id.* at ch. 4, 35–36.

118 *Butte Envtl. Council v. U.S. Army Corps of Engrs.*, 620 F.3d at 947–48.

119 This scheme for assessing whether a project destroys or adversely affects critical habitat also adds an ironic twist to landowner and industry interests' reflexive opposition to critical habitat. Since it is easier to justify a federal project's impacts to a given area of critical habitat if the Services assess these impacts in comparison to a very large area of designated critical habitat, those concerned about critical habitat designations' impacts to their property or land in which they have an interest should seek designation of the largest possible critical habitat designations. Therefore, the interested parties' land will be a much smaller proportion of the larger total area of critical habitat.

action would undermine the ability of critical habitat designations to provide for a species' recovery.[120] The only problem is that this tracking system does not exist. In most cases, the Services are in effect blindly determining whether a proposed federal action will be the one that tips a species into jeopardy or renders its critical habitat ineffective for fostering species recovery. Needless to say, such a fundamental gap is hardly consistent with Congress's intent for Section 7 to serve as the "institutionalization of caution."[121]

III. LOOKING FORWARD

Despite the "bad" and even "ugly" sides of the Endangered Species Act (ESA), it has, for the past forty years, been remarkably effective at stemming—and in many cases even reversing—the decline of imperiled species.[122] Yet in the twenty-first century, it is no longer appropriate to assess whether the statute can accomplish what Congress set out to do in 1973. Our understanding of the threats facing biodiversity, as well as of our realization of how society needs to change in order for future generations to enjoy and benefit from these biological resources, has changed dramatically. This fortieth anniversary gives us an opportunity to consider how the statute will fare in meeting the challenges of the future.

Four decades ago, Congress largely considered biodiversity to be at risk from improperly planned or ill-advised individual human actions, such as a wrongly sited dam or overharvest of a commercially exploited species.[123] Lawmakers thought, through outlawing direct harm to protected species and prescribing precautionary assessment of proposed projects, the law could sufficiently "tweak" human activities to make room for recovery of species at risk of extinction and the ecosystems that sustain them.

We now know that tweaking human activities will not be enough. While ill-advised human actions and projects continue to affect a wide variety of species and their habitat, scientists have identified more systemic threats that put entire ecosystems at risk, as well as their

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120 *Consultation Handbook*, *supra* n. 99, at ch. 9, 2.

121 *See* H.R. Rpt. 93-412 at 144 (July 27, 1973) ("[I]t is in the best interests of mankind to minimize the losses of genetic variations. The reason is simple: they are potential resources. They are keys to puzzles which we cannot solve, and may provide answers to questions which we have not yet learned to ask.").

122 *See* Kieran Suckling et al., Ctr. for Biological Diversity, *On Time, On Target: How the Endangered Species Act Is Saving America's Wildlife* (May 2012) (available at http://www.esasuccess.org/pdfs/110_REPORT.pdf [http://perma.cc/5VQW-M9F4] (accessed Apr. 12, 2014)) (concluding that 90% of species are recovering at the rate specified by their federal recovery plans); *see also* Martin F.J. Taylor et al., *The Effectiveness of the Endangered Species Act: A Quantitative Analysis*, 55 BioScience 299, 360–67 (Apr. 2005) (suggesting that prompt listing, protection of critical habitat, and dedicated recovery plans lead to increased recovery rates for threatened and endangered species).

123 *See* 16 U.S.C. § 1531 (declaring the purpose of the ESA and communicating the legislature's concerns regarding untempered human development that does not adequately consider the impact on fish, wildlife, and plants).

individual species. Invasive species—many of which have no known means of eradication—out-compete many native creatures. In some cases, human actions have altered ecosystem processes and disturbance regimes in ways that simply cannot be reversed. For example, it is impossible to restore a historic fire disturbance regime that species may depend upon for their life cycles when many human dwellings now dot the forest. And, of course, climate change presents perhaps the greatest and most pervasive threat to biodiversity of all—a challenge so vast that it cannot be solved with modest adjustments in planning specific projects.[124]

After forty years, it is therefore crucial that Congress, the Services and their state counterparts, and society as a whole look at the ESA as necessary but not sufficient to protect biodiversity. The tremendous challenges posed by the systemic threats noted above should in no way cause us to waiver in striving to effectively implement and improve that law passed decades ago. Indeed, we should redouble our efforts to carry out the ESA's existing protections, but also recognize that these protections will only provide a foundation from which society can begin to re-sort itself in a manner that leaves room for the nonhuman living creatures on the planet to flourish as well.

To set the stage for the next forty years of species conservation, it might be helpful to consider Aldo Leopold's perspective in reverse. Leopold encouraged us to see humans as a part of the biotic community,[125] but in searching for the next steps in securing the future of other species it may be useful to think of the problems of the biotic community as the problems of their human counterparts as well. In other words, we have also realized over the past forty years that our own existence on the planet is at serious risk due to climate change and rising (and acidifying) seas, invasive species that attack our crops and even block the pipes of our power plants, and changing ecosystems that, for example, no longer supply fresh water on a reliable basis.[126] We can only resolve, or at least reduce, these threats to our own future through

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[124] *See generally* John Kostyack & Dan Rohlf, *Conserving Endangered Species in an Era of Global Warming*, 38 Envtl L. Rptr. News & Analysis 10203 (2008), http://www.nwf.org/~/media/PDFs/Global-Warming/ConservingEndangeredSpeciesinanEraofGlobalWarming.ashx [http://perma.cc/ZBU8-XK2H] (accessed Apr. 12, 2014) (discussing the ESA and climate change).

[125] Leopold, *supra* n. 2.

[126] *See e.g.* Dan Bilefsky, *Jellyfish Invasion Paralyzes Swedish Reactor*, N.Y. Times A5 (Oct. 1, 2013) (available at http://www.nytimes.com/2013/10/02/world/europe/jellyfish-invasion-paralyzes-swedish-reactor.html [http://perma.cc/3XKW-T845] (accessed Apr. 12, 2014)) (describing how a giant swarm of jelly fish shut down the Oskarshamn nuclear power plant in Sweden); *see generally Ocean Acidification* (Jean-Pierre Gattuso & Linda Hansson eds., Oxford U. Press 2011) (discussing ocean acidification and its effect on various ecosystems); U.S. Envtl. Protec. Agency, *Climate Impacts on Water Resources*, http://www.epa.gov/climatechange/impacts-adaptation/water.html [http://perma.cc/8BFU-A6KK] (updated Sept. 9, 2013) (accessed Apr. 12, 2014) (describing the impacts of climate change on water cycle and demand, on water quality, and on water resources in other sectors).

international cooperation, building a global society that will likely involve using fewer resources more wisely, better aligning our own actions with natural processes, and more equitably distributing wealth to allow for much of humankind to live more sustainably. Of course, no law aimed at conserving endangered species will drive these fundamental changes. Yet such changes are essential to conserving endangered species. Thus, in saving ourselves, we will also save whales, snail darters, spotted owls, polar bears, and the many other species that continue to face an uncertain future.

IV. CONCLUSION

Forty years ago, Congress made a remarkable commitment to modify human actions in order to avoid causing extinction of other species, as well as to take steps to protect and restore those species and the ecosystems upon which they depend. While the Endangered Species Act has resulted in enormous positive changes that have benefitted listed species on both federal and nonfederal land, actions by Congress and administrative agencies over the years have also considerably undermined the statute's effectiveness. Society's challenge over the coming decades will be to reinvigorate its efforts to specifically protect imperiled species as a necessary initial step toward tackling the systemic threats to all life on the planet—human and nonhuman alike. The articles in this symposium issue provide excellent ideas toward beginning this process.