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Past, Present, and Future Trends of the Endangered Species Act

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I. INTRODUCTION

Somehow, the Endangered Species Act (ESA)¹ just keeps chugging along, throwing everyone surprises. In a rare moment of environmental consensus, Congress adopted and President Richard Nixon signed² the 1973 legislation that remains the core of the ESA, providing “a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved.”³ But it was the Supreme Court—and a tiny fish—that put the statute on the map a few years later, when the Court decided the statute meant what Congress said and ordered the federal government “to halt and reverse the trend toward species extinction, whatever the cost.”⁴

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1. *Endangered Species Act of 1973*, 16 U.S.C. §§ 1531-44 (2000). This Article is not intended to provide a comprehensive overview of the ESA. For that, see Lawrence R. Liebesman and Rafe Petersen, *Endangered Species Deskbook* (2003); *Endangered Species Act: Law, Policy, and Perspectives* (Donald C. Baur & Wm. Robert Irvin eds., 2002) [hereinafter *Law, Policy, and Perspectives*]; *Stanford Environmental Law Society, The Endangered Species Act* (2001) [hereinafter *SELS*]; Tony A. Sullins, *Endangered Species Act* (2001); Michael J. Bean & Melanie J. Rowland, *The Evolution of National Wildlife Law* (3d ed., 1997).

2. There was little debate over the bills in either house, nearly unanimous support in the final votes in Congress, and rapid endorsement by President Nixon. For a concise history of the enactment of the ESA and its subsequent amendments, see *SELS*, *supra* n. 1, at 14-26.

3. 16 U.S.C. § 1531(b) (2000).

4. *Tennessee Valley Auth. v. Hill*, 437 U.S. 153, 184-85 (1978). The Court refused to allow equitable considerations to relieve the TVA from its duty under the ESA to ensure that construction and operation of a dam would not jeopardize the continued existence of the endangered snail darter. The

Well, that did not happen, but over time the statute nonetheless became known as the “pit bull” of environmental laws.⁵ Sentiment against the big bad ESA grew steadily to the point where it was slated to be “gutted” when Republicans took control of Congress in the mid-1990s.⁶ That did not happen either, because Bruce Babbitt, the Secretary of the Interior appointed by President Bill Clinton, decided to reform the statute to make it friendlier to property owners, which took the wind out of the legislative reform sails.⁷ Later, to improve conditions for two species of sucker fish and a population of salmon, the Secretary of the Interior appointed by President George W. Bush decided to cut off federal irrigation water supplies to several hundred farmers in Oregon, who saw their farms turn to dust.⁸

If this is beginning to sound a bit strange, get used to it. The ESA is not like any other environmental law,⁹ and its thirty-year history has repeatedly defied convention. So, although I was quite happy to accept the invitation to open the Twenty-Seventh Annual Public Lands and Resources Law Conference, the topic of which was “The Endangered Species Act: Regulatory and Incentive-Based Alternatives in the West,” I wasn’t quite sure what to make of my assigned task: “[T]o open the conference...with a sixty to ninety minute overview of the ESA’s major decisions and provisions,

Court observed that the “plain intent of Congress in enacting this statute was to halt and reverse the trend toward species extinction, whatever the cost,” and that in this regard the ESA “admits of no exception.” *Id.* at 184-85. The case has been described as a “ringing endorsement of the environmentalists’ proposition (and the basis of their empowerment strategy) that if citizens are able to prove a statutory violation, the court must enforce the law without equitable balancing.” Zygmunt J.B. Plater et al., *Environmental Law and Policy: Nature, Law, and Society* 681-82 (2d ed., West Group 1998). For thoughtful accounts of the case, including its historical preludes and aftermath, see Oliver Houck, *Unfinished Stories*, 73 U. Colo. L. Rev. 867, 921-942 (2002); Zygmunt J.B. Plater, *Environmental Law in the Political Ecosystem—Coping With the Reality of Politics*, 19 Pace Envtl. L. Rev. 423, 423-71 (2002).

5. See e.g., Steven P. Quarles, *The Pit Bull Goes to School*, Envtl. F., Sep.-Oct. 1998, at 55.

6. For a summary, see SELS, *supra* n. 1, at 22-30.

7. For comprehensive and thoughtful “insider” accounts of this aspect of Secretary Babbitt’s tenure at Interior, see John D. Leshey, *The Babbitt Legacy at the Department of Interior: A Preliminary View*, 31 Envtl. L. Rev. 199 (2001); Joseph L. Sax, *Environmental Law At the Turn of the Century: A Reportorial Fragment of Contemporary History*, 88 Cal. L. Rev. 2375 (2000).

8. For the legal and social history leading to the Klamath River Basin events, as told from several different perspectives, see Holly Doremus & A. Dan Tarlock, *Fish, Farms, and the Clash of Cultures in the Klamath Basin*, 30 Ecology L.Q. 279, 325 (2003); Reed D. Benson, *Giving Suckers (and Salmon) an Even Break: Klamath Basin Water and the Endangered Species Act*, 15 Tulane Envtl. L.J. 197 (2002); Julia Meudeking, *Taking the Heart of the Klamath Basin: Is it Free?*, 8 Drake J. Agric. L. 217 (2003); Cori S. Parobek, *Of Farmers’ Takes and Fishes’ Takings: Fifth Amendment Compensation Claims When the Endangered Species Act and Western Water Rights Collide*, 27 Harv. Envtl. L. Rev. 177 (2003).

9. Because of this quality, “the act just didn’t look like other legislation.” Charles C. Mann & Mark L. Plummer, *Noah’s Choice: The Future of Endangered Species* 161 (1st ed., Knopf 1995) (emphasis in original). Although Congress may not have been aware of the ramifications of the ESA’s different look, congressional staffers and others close to the drafting and enactment of the original version of the ESA have suggested that they both understood and intended the different look to carry the ESA where other laws enacted in the same time period had not ventured. See *id.* at 156-62.

and...your perspectives on emerging and future ESA issues.”¹⁰ Sure, no problem, I can do that in sixty to ninety minutes!

As the conference date drew nearer, the magnitude of my topic became clearer and I began to panic. Then it occurred to me that what has mattered most to the law of the ESA and what I should try to convey, is what people—lawyers, to be specific—have *said* matters through the statute’s history. I recalled that the American Bar Association section covering environmental law had devoted two complete issues of its excellent journal, *Natural Resources & Environment (NR&E)*, to the ESA, once in 1993¹¹ and then again in 2001.¹² I thought that these two journal issues, compilations of what two different sets of academics and practitioners thought most important to convey about the ESA in their respective time periods, would serve as useful reference points for my identification of what has mattered most under the ESA.

My initial idea was to compare the topics covered in the two issues and formulate some way of explaining why the two sets of topics changed so much over the eight years separating the two journal issues. Much to my surprise, I found that the topics had not changed at all. The names and faces changed. The cases discussed were different. The places where it all happened were different. But the topics—the basic themes of discussion—were exactly the same. How could it be that a statute with such an unusual and tumultuous history had, at two points eight years apart, produced two full-length journals covering the same topics?

As I thought about it, the reason became clear. The themes covered in these two journal issues are the issues that drive the ESA year in and year out, because they are issues that will *never* be resolved. I’m no pessimist by nature, but it strikes me that as long as we humans are on the planet doing our thing, we are going to place some other species in peril. And there is a set of issues that inevitably will be presented under those circumstances, which have to do with how we respond through law to the prospect of our impact on other species. Indeed, I expect that twenty years from now, at the Forty-Seventh Annual Public Land and Resources Law Conference covering the fiftieth anniversary of the ESA, some speaker will focus on the same topics as I am about to cover.

So, this article is designed to convince readers that the past, present, and future trends of the ESA are all the same. To provide context, Part I presents a brief overview of the structure of the statute and the kinds of decisions that must be made under it. Part II delves more deeply into each of the topics covered in the *NR&E* issues, eight in all, providing in each case the

10. Letter from Ryan Lutey, Public Lands & Resources Law Review Editor in Chief, to J.B. Ruhl (June 10, 2003).

11. See Symposium, *Endangered Species Protection*, 8 Nat. Resources & Env. 3 (Summer 1993).

12. See Symposium, *Implementing Endangered Species Protection*, 16 Nat. Resources & Env. 59 (Fall 2001).

necessary legal background followed by a discussion of how the topic played out in the two *NR&E* issues. Finally, I conclude with a brief summary of my own perspectives on how these eight themes will continue to evolve in Congress, the agencies, and the courts.

II. SETTING¹³

The ESA requires the Secretary of the Interior, who acts through the U.S. Fish and Wildlife Service (FWS) and the Secretary of Commerce, who acts through the National Marine Fisheries Service (NMFS), to make various decisions about the status and protection of animal and plant species.¹⁴ FWS and NMFS administer several core programs in that regard, the details of which are explored more fully later in the article:

- Section 4 authorizes FWS and NMFS to identify “endangered” and “threatened” species, known as the “listing” function,¹⁵ and then to designate “critical habitat”¹⁶ and develop “recovery plans” for the species.¹⁷
- Section 7 requires all federal agencies to ensure that actions they carry out, fund, or authorize do not “jeopardize” the continued existence of listed species or “adversely modify” their critical habitat.¹⁸
- Section 9 requires that all persons, including all private and public entities subject to federal jurisdiction, avoid “taking” listed species of fish and wildlife.¹⁹

13. I have had the pleasure of being asked to make presentations and write commentary for publication about the ESA more than several times. Out of necessity, the materials in this “background” section of this Article are a variation, tailored for the instant purposes, of a template I have developed and used several times in order to set the stage for in-depth discussion of different aspect of the ESA program. Similar background treatments appear elsewhere in my published work.

14. See 16 U.S.C. §§ 1532(15) (defining Secretary) and 1533(a)(2) (division of responsibility); 50 C.F.R. § 424.01 (2004) (FWS and NMFS joint regulations). FWS generally is responsible for terrestrial and freshwater species, while NMFS is responsible for marine and anadromous species. NMFS is also known as National Oceanic and Atmospheric Administration (NOAA) Fisheries.

15. 16 U.S.C. § 1533(a)(1). For a description of the listing process, see SELS, *supra* n. 1, at 38-58; Liebesman & Petersen, *supra* n. 1, at 15-20; Sullins, *supra* n. 1, at 11-25; J.B. Ruhl, *Section 4 of the ESA: The Keystone of Species Protection Law, Law, Policy, and Perspectives*, *supra* n. 1, at 19.

16. 16 U.S.C. § 1533(a)(3). For a description of the critical habitat designation process, see SELS, *supra* n. 1, at 59-69; Liebesman & Petersen, *supra* n. 1, at 20-24; Sullins, *supra* n. 1, at 26-28; Federico Cheever, *Endangered Species Act: Critical Habitat, Law, Policy, and Perspectives*, *supra* n. 1, at 47.

17. 16 U.S.C. § 1533(f). For a description of the recovery plan process, see SELS, *supra* n. 1, at 71-77; Liebesman & Petersen, *supra* n. 1, at 24-26; Sullins, *supra* n. 1, at 34-18; John M. Volkman, *Recovery Planning, Law, Policy, and Perspectives*, *supra* n. 1, at 71.

18. 16 U.S.C. § 1536(a)(2). For a description of the consultation process, see SELS, *supra* n. 1, at 83-103; Liebesman & Petersen, *supra* n. 1, at 27-39; Sullins, *supra* n. 1, at 59-86; Marilyn Averill, *Protecting species through Interagency Cooperation, Law, Policy, and Perspectives*, *supra* n. 1, at 87.

19. 16 U.S.C. § 1538(a)(1). For a description of the cases developing the legal standards for what constitutes “take,” see SELS, *supra* n. 1, at 104-112; Liebesman & Petersen, *supra* n. 1, at 39-45; Sullins, *supra* n. 1, at 44-53; Gina Guy, *Take Prohibitions and Section 9, Law, Policy, and Perspectives*,

- Sections 7 (for federal actions) and 10 (for actions not subject to Section 7) establish a procedure and criteria for FWS and NMFS to approve “incidental taking” of listed species.²⁰

A reader unfamiliar with the ESA may find its structure quite simple and its application quite straightforward. Indeed, by comparison to other federal environmental laws, the ESA is streamlined, almost brief.²¹ The core programs seem to fit together neatly: (1) identify problem species and their essential habitat areas; (2) stop public and private actions from further significantly deteriorating their condition; (3) allow actions that kill or injure species members only under strict permitting guidelines; and (4) figure out ways to help them recover to sustainable populations. Seems like a good game plan.

As is often the case with seemingly uncomplicated statutes, however, the devil is in the details. Each of the administrative programs outlined above involves an intersection between legal standards and a multitude of scientific determinations. The problem is not one simply of uncertainty for lack of data, though that is surely a driver in the difficulties of ESA administration. Rather, the fit between the two domains is often not very tight even when available data is robust by scientific standards. The legal standards call for determinations that scientists usually are reluctant to make, and the information and analysis science produces often leads to inconclusive outcomes under the legal standards. Consider the following inventory of some of the coupled law-science decisions FWS and NMFS are required to make under the ESA:

supra n. 1, at 191; Steven P. Quarles and Thomas R. Lundquist, *When Do Land Use Activities “Take” Listed Wildlife Under ESA Section 9 and the “Harm” Regulation?*, Law, Policy, and Perspectives, *supra* n. 1, at 207.

20. 16 U.S.C. §§ 1536(b)(4) and 1539(a)(1). “Incidental take,” although not the subject of a specific statutory definition provision, is described elsewhere in the statute as a take that is “incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.” 16 U.S.C. § 1539(a)(1)(B). The FWS and NMFS have adopted this meaning for purposes of the regulations implementing Section 7. 50 C.F.R. § 402.02. For a description of the incidental take authorization procedures, see SELS, *supra* n. 1, at 127-73; Liebesman & Petersen, *supra* n. 1, at 46-50; Sullins, *supra* n. 1, at 87-102.

21. In one unannotated collection of environmental statutes, the ESA took up 44 pages compared to 181 pages for the Clean Water Act and 304 pages for the Clean Air Act. See Robert V. Percival, *Environmental Law: Statutory Supplement and Internet Guide* (2002).

Program	Legal Standard	Science Questions
Section 4: Listing	Is the species in danger of extinction throughout all or a significant portion of its range (endangered) or likely to become so in the foreseeable future (threatened)? ²²	Is it a species? ²³ What is its range? What are the present and threatened injuries to its habitat? ²⁴ Is it being over-utilized for commercial or other purposes? Is it threatened by disease or predation? Overall, are these threats enough to cause it to go extinct? When? What is the probability?
Section 4: Critical Habitat Designation	What habitat is essential to the conservation of the species and requires special management considerations? ²⁵	How much space does the species need for individual and population growth? ²⁶ What are its food, water, air, light, mineral, shelter and other nutritional and physiological requirements? Where does it breed, reproduce and rear offspring? What are the constitutive elements of habitat serving these functions and needs? Where is such habitat? How much of it does the species require?
Section 4: Recovery Planning	What measures are necessary to bring the species to the point at which it is no longer endangered or threatened, and by what objective, measurable criteria can that determination be made? ²⁷	What site-specific and general management actions can reduce the threats that caused the species to be listed? ²⁸ How will we measure the magnitude of those benefits? When will the benefits have reached the point that we can justify removing the species from the lists?

22. These are the definitions of endangered species and threatened species. See 16 U.S.C. §§ 1532(6), (20).

23. For a discussion of this seemingly straightforward question, see *infra* n.s 56-61 and accompanying text.

24. This and the remaining questions posed for the listing function are taken from the statutory criteria. See 16 U.S.C. § 1533(a)(1)(A)-(E).

25. This is taken from the definition of critical habitat. See 16 U.S.C. § 1532(5).

26. This and the other critical habitat designation questions are summarized in the agency regulations. 50 C.F.R. § 424.12(b)(1)-(5).

27. This is taken from the definition of "conservation," which is what recovery plans are supposed to accomplish. See 16 U.S.C. §§ 1532(3), 1534(f) (definition of "conservation" and "recovery plans are for conservation of species" respectively).

28. These questions are from the statutory procedure for recovery plan development. See 16 U.S.C. § 1533(f).

Program	Legal Standard	Science Questions
Section 7: Jeopardy Prohibitions	Will the direct and indirect effects of the federal action jeopardize the continued existence of the species by appreciably reducing its chances of recovery and survival in the wild? ²⁹	What are the impacts of the action on reproduction, numbers, or distribution of the species? ³⁰ How much do such impacts reduce the chances of the species surviving and recovering in the wild?
Section 7: Adverse Modification Prohibition	Will the direct and indirect effects of the federal action result in the destruction or adverse modification of critical habitat of the species ³¹ by appreciably diminishing the value of the habitat for the survival and recovery of the species? ³²	How does the action alter any of the physical and biological features that were the basis for determining the habitat to be critical? ³³ How much do such impacts reduce the chances of the species surviving and recovering in the wild?
Section 9: Take Prohibition	Will a person's action harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any individuals of the species? ³⁴	Does the action actually kill or injure wildlife? For the "harm" determination, does it modify or degrade habitat so as to impair behavioral patterns such as breeding, feeding, or sheltering, and if so, has that killed or injured individuals of the species? ³⁵
Section 7: Incidental Take Permitting	What reasonable and prudent measures are necessary or appropriate to minimize the impact of the incidental taking? ³⁶	What is the nature and magnitude of the take being authorized, and by what measures and magnitude has the agency minimized such take?

29. This is the statutory prohibition of jeopardy. *See* 16 U.S.C. § 1536(a)(2). The agency regulations elaborate on the statute with this definition of "jeopardize." *See* 50 C.F.R. § 402.02.

30. These are the criteria set forth in the regulatory definition. *See* 50 C.F.R. § 402.02.

31. This is the statutory prohibition of adverse modification. *See* 16 U.S.C. § 1536(a)(2).

32. The agency regulations elaborate on the statute with this definition of "adverse modification." *See* 50 C.F.R. § 402.02.

33. These are the criteria set forth in the regulatory definition. *See* 50 C.F.R. § 402.02.

34. This is the statutory definition of take. *See* 16 U.S.C. § 1532(19).

35. This is the regulatory definition of harm. *See* 50 C.F.R. § 17.3.

36. This is the statutory standard for issuance of a Section 7 incidental take statement. *See* 16 U.S.C. 1536(b)(4).

Program	Legal Standard	Science Questions
Section 10: Incidental Take Permitting	Has the applicant minimized and mitigated the impacts of the incidental taking to the maximum extent practicable, and not appreciably reduced the likelihood of the survival and recovery of the species? ³⁷	What is the nature and magnitude of the take being authorized, and by what measures and magnitude has the applicant minimized and mitigated such take? What is the net effect of the take, as minimized and mitigated, on the ability of the species to survive and recover?

This illustration presents only the tip of the iceberg. Any one of the science questions could be unpacked to reveal a wealth of additional inquiries, pressing even harder on the question of how to make the call under the legal standard. There is much work to be done and many decisions to be made under the ESA. It should be no surprise to find the statute has presented a rich diet of complex and often controversial issues. The next section of this article delves more deeply into the dominant themes that have emerged from this mix of science and law and which have remained remarkably constant as the driving forces behind the development of the ESA.

III. EIGHT THEMES OF ESA HISTORY

As this is the thirtieth anniversary of the ESA, I expect to see a good number of efforts to pull the experience together into some coherent history, and many different ways of doing so. One approach might be to run through the “big cases.”³⁸ Another could be to identify the “phases” or “periods” of the ESA.³⁹ My approach was to focus on the last ten years—the period I believe has had the greatest influence on where the ESA is today and where it is headed—and ask what mattered to people working with the ESA at different points in that time frame. The two issues of *NR&E* provide convenient and illuminating reference points for that purpose. They reveal a set of themes that have remained constant over the time frame, but have provided a rich context for the evolution of ESA administration and litigation.

A. Identifying Imperiled Species and Their Critical Habitat

Most of the ESA’s machinery works only with respect to a species that has been “listed”⁴⁰ as “endangered”⁴¹ or “threatened.”⁴² Section 4 of the

37. These are the statutory criteria for issuance of a Section 10 incidental take permit. See 16 U.S.C. § 1539(a)(2).

38. See Daniel A. Farber, *A Tale of Two Cases*, 20 Va. Envtl. L. J. 33 (2001) (comparing *TVA v. Hill* and *Sweet Home*, two Supreme Court ESA cases discussed herein at *supra* n. 4 and *infra* n. 99).

39. Something I have tried in the past. See J.B. Ruhl, *Phase Three of the ESA: Using Endangered Species Protection as a Natural Resource Management Tool*, 6 Nat. Resources & Env. 38 (Winter 1992).

40. See 16 U.S.C. § 1533(c) (directing the Secretary of the Interior to maintain the lists).

ESA governs this listing function,⁴³ as well as the requirement that FWS and NMFS designate “critical habitat”⁴⁴ of species that they list. The listing and critical habitat designation functions are, in administrative law terms, rulemaking,⁴⁵ and can be initiated with a citizen petition or from within the agency.⁴⁶

Although the ESA has been in place for thirty years, far more species have been added to the list than removed. Currently, over 390 animals and 600 plants found in the United States are listed as endangered and over 130 animals and 150 plants in the United States are threatened.⁴⁷ These figures are disturbing enough, but even more so when one considers that only fourteen species have been removed from the lists because they have “recovered,”⁴⁸ seven have been removed because they have become *extinct*,⁴⁹ and only 450 listed species have had critical habitat designated.⁵⁰ Moreover, the trend continues, with twenty-seven animal species already proposed for listing and another 117 considered good candidates; four plants proposed for listing and 139 in candidate status.⁵¹ Hence, it should be no surprise that as the number of listed species has grown, the issues surrounding the listing and critical habitat programs have become more contentious.

In 1993, I provided the *NR&E* issue installment on the listing and critical habitat designation programs.⁵² My theme at the time was that there had been relatively little judicial review up to that point under Section 4,⁵³ but the dam was probably about to burst. There had been an increase in cases in which courts found FWS or NMFS had committed procedural errors, such as missed deadlines or failed to fulfill procedural requirements under other

41. A species is endangered if it “is in danger of extinction throughout all or a significant portion of its range.” 16 U.S.C. § 1532(6).

42. A species is threatened if it “is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” 16 U.S.C. § 1532(20).

43. See 16 U.S.C. 1533.

44. “Critical habitat” is comprised of “specific areas...on which are found those physical and biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection.” 16 U.S.C. 1532(5(A)(i)).

45. See 16 U.S.C. § 1533(a)(1) (“The Secretary shall by regulation...”).

46. See 16 U.S.C. § 1533(b)(3) (citizen petition procedures) Most listings follow on the heels of citizen petitions.

47. For a chart updating the figures on a monthly basis, see FWS, *Summary of Listed Species and Recovery Plans as of 09/1/2003*, http://ecos.FWS.gov/tess_public/html/boxscore.html (accessed Sept. 18, 2003).

48. See FWS, *Delisted Species Report*, http://ecos.FWS.gov/tess_public/TESSWebpageDelisted?listings=0 (accessed Sept. 18, 2003).

49. See FWS, *Delisted Species Report*, http://ecos.FWS.gov/tess_public/TESSWebpageDelisted?listings=0 (accessed Sept. 18, 2003):

50. See FWS, *General Statistics for Endangered Species*, http://ecos.FWS.gov/tess_public/TessStatReport (accessed Sept. 18, 2003).

51. See *id.*

52. See J.B. Ruhl, *Section 4 of the ESA—The Cornerstone of Species Protection Law*, 8 Nat. Resources & Env. 26 (Summer 1993).

53. My take was that “until recently...judicial examination of the ESA § 4 programs was insignificant.”

laws, but very few cases had overruled a listing or critical habitat rule on substantive grounds.⁵⁴ I suggested, however, that the “intensified focus on the importance of listing and other Section 4 programs virtually guarantees that many more cases will follow soon.”⁵⁵

It is so nice to be right! Unfortunately, being right in this case meant witnessing a tsunami of litigation under Section 4. In 2001, three different articles in the *NR&E* issue were devoted to the Section 4 programs and the snarl of litigation and other conundrums they had engendered. The issues have become more nuanced, diverse and complicated than when I surveyed the handful of cases out there in 1993, but they all boil down to the hard cold fact that the ESA machinery pulls into gear only when Section 4 dictates.

As an example of the nuances we now see under the ESA, one 2001 installment dealt with the practice of listing “distinct breeding populations” (DPS) as species.⁵⁶ The legal definition of species under the ESA strikes many scientists as nonsensical.⁵⁷ The ESA defines species to include “any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.”⁵⁸ Scientists have enough trouble defining a species; now they must also define subspecies and distinct population segments, matters sure to engender yet more debate.⁵⁹ FWS and NMFS have a many-paged policy document that attempts to sort through these issues, with marginal success.⁶⁰ Expand these questions beyond the halls of science to the policy context of ESA implementation, and the combative array of ESA interest groups have unleashed a wave of litigation challenging listing decisions around the nation, fighting tooth-and-nail over the species question alone.⁶¹

Another huge litigation front that has opened under Section 4 involves critical habitat designations. As noted ESA practitioners Murray Feldman

54. *See id.* at 68-70.

55. *Id.* at 70.

56. *See* Kate Geoffrey and Thomas Doyle, *Listing Distinct Breeding Segments of Endangered Species: Has It Gone Too Far?*, 16 *Nat. Resources & Env.* 82 (2001).

57. As two close observers of the ESA have put it, “the ESA requires scientists to provide clear answers to fuzzy questions that many scientists do not define as ‘scientific,’ such as whether a species is endangered or whether a specific project is likely to cause jeopardy.” Doremus & Tarlock, *supra* n. 8, 325.

58. *See* 16 U.S.C. § 1532(16).

59. For a discussion of the debate surrounding how to define a species, both legally and scientifically, *see* SELS, *supra* n. 1, at 31-38; Liebesman & Petersen, *supra* n. 1, at 11-15; Sullins, *supra* n. 1, at 6-11; Doremus, *supra* n. 8, at 1087-1112.

60. *See* Geoffrey & Doyle, *supra* n. 56, at 86-87.

61. Several cases turn on whether FWS or NMFS has correctly defined what constitutes a species within the meaning of the statute. *See* Liebesman & Petersen, *supra* n. 1, at 11-15 (reviewing cases). For a recent study documenting many of the Section 4 cases, *see* U.S. General Accounting Office, GAO-03-803, *Fish and Wildlife Service Uses Best Available Science to Make Listing Decisions, but Additional Guidance Needed for Critical Habitat Designations*, 15-16 (2003).

and Mike Brennan explained in their article in the 2001 *NR&E* issue,⁶² in addition to a wave of suits involving missed statutory deadlines for critical habitat designations, “both the protection provided by and the analysis required for critical habitat designation are coming under increased judicial scrutiny.”⁶³ The wave of litigation has become so intense and costly, FWS describes it as having nothing short of debilitating effects on the agency’s ability to carry out its conservation mission.⁶⁴

Finally, in an article illustrating the interplay between Section 4 and the regulatory provisions of the ESA, Madeline June Kass explained in the 2001 *NR&E* issue how Section 4(d) of the statute, governing the listing of species as threatened, could provide greater statutory flexibility.⁶⁵ When animal species are listed as endangered, the take prohibition of Section 9 applies automatically and fully—it leaves little discretion to FWS and NMFS as to how to regulate activities that might cause a taking of the species. By contrast, under Section 4(d) FWS and NMFS have the discretion to prescribe the level of take protection afforded species listed as threatened. Kass described how FWS and NMFS have increasingly turned to this option as a means of relieving the angst associated with Section 9, by crafting complex rules under Section 4(d) detailing activities that are and are not prohibited under Section 9.⁶⁶ Of course, the success of this tactic depends on there being scientific credibility for designating the species as threatened. Not surprisingly, therefore, this new approach, while “creative and fresh,”⁶⁷ is controversial.

62. See Murray D. Feldman & Michael J. Brennan, *The Growing Importance of Critical Habitat for Species Conservation*, 16 *Nat. Resources & Env.* 88 (Fall 2001).

63. *Id.* at 88.

64. See U.S Department of the Interior News, *Endangered Species Act “Broken”—Flood of Litigation Over Critical Habitat Hinders Species Conservation* (May 28, 2003) (press release). The agency has testified about this problem before Congress:

Simply put, the listing and critical habitat program is now operated in a “first to the court-house” mode, with each new court order or settlement taking its place at the end of an ever-lengthening line. We are no longer operating under a rational system that allows us to prioritize resources to address the most significant biological needs. I should note that it is a direct result of this litigation that we have had to request a critical habitat listing subcap in our appropriations request the last several fiscal years in order to protect the funding for other ESA programs.

Testimony of Craig Manson, Assistant Secretary for Fish, Wildlife and Parks, Department of the Interior, Before the Subcommittee on Fisheries, Wildlife and Water of the Senate Committee on Environment and Public Works, Regarding the Designation of Critical Habitat Under the Endangered Species Act (April 10, 2003) <http://laws.FWS.gov/TESTIMON/2003/2003april10.html> (accessed Nov. 4, 2003).

65. See Madeline June Kass, *Threatened Extinction of Plain Vanilla 4(d) Rules*, 16 *Nat. Resources & Env.* 78 (Fall 2001).

66. See *id.* at 79-81.

67. *Id.* at 133.

B. *What to Make of the Toothless Recovery Plan Program*

The point of the ESA is not to list species, but to rescue them from their imperiled state. The ESA provides several tools for doing so, some that have sharp regulatory teeth and others that do not. One tool in the latter category is provided in Section 4(f) of the statute, under which FWS and NMFS must “develop and implement plans (hereinafter ‘recovery plans’) for the conservation and survival” of each species they list.⁶⁸ The goal of “conservation” is “to use all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary.”⁶⁹ So, recovery planning is designed to have FWS and NMFS lay out the conservation game plan. From there, however, the courts have interpreted recovery plans to have no mandatory effect on federal agencies, much less anyone else.⁷⁰ They are plans, and nothing more.

This limitation has seriously complicated recovery plan implementation, particularly in the case of species with large-scale habitat needs. For example, it speaks volumes that in his 1993 *NR&E* article on recovery programs in the Upper Colorado River Basin, Peter Evans never once mentions Section 4(f).⁷¹ The “recovery program” about which he wrote was in reality a regulatory program that had morphed into a “partnership” between FWS and the three affected states.⁷² Eight years later, Professor Fred Cheever meticulously chronicled the failure of recovery planning to amount to anything in terms of force of law.⁷³ He outlined the case for using recovery plans to guide implementation of the other ESA programs, including those that do have regulatory force. He noted the influence recovery plans have had on judicial determinations of such matters as whether an activity causes take, whether an activity jeopardizes a species, and whether a species should be reclassified from endangered to threatened.⁷⁴ It remains to be seen, however, whether these are isolated instances of a court using recovery plans as a convenient source of evidence, or whether, as Cheever put it, the courts are building recovery plans into “the context in which all provisions of the ESA will be applied to specific species.”⁷⁵ Two years after his article, the recovery plan program remains gums in search of teeth.

68. 16 U.S.C. § 1533(f)(1).

69. 16 U.S.C. § 1532(3).

70. See Liebesman & Petersen, *supra* n. 1, at 25-26; SELS, *supra* n. 1, at 76-77.

71. See Peter H. Evans, *The “Recovery” Partnership for the Upper Colorado River to Meet § 7 Needs*, 8 *Nat. Resources & Env.* 24 (Summer 1993).

72. See *id.* at 24-25, 71.

73. See Federico Cheever, *Recovery Planning, the Courts and the Endangered Species Act*, 16 *Nat. Resources & Env.* 106, 108-110 (Fall 2001).

74. See *id.* at 110-11, 135.

75. *Id.* at 135.

C. The Ever-Expanding Scope of Section 7 Consultation

Some of the tools the ESA makes available for species conservation have far more regulatory weight than is found in the recovery plan program. A bulwark in this respect is Section 7(a)(2) of the statute, which places a series of restrictions on actions carried out, funded or authorized by federal agencies.⁷⁶ Such actions may neither be “likely to jeopardize the continued existence of any endangered species or threatened species,” nor “result in the destruction or adverse modification of [critical] habitat.”⁷⁷ These restrictions are backed up by a highly articulated “consultation” procedure that requires each federal “action agency” to verify the impacts of their actions with FWS and NMFS (the “consulting agencies”).⁷⁸ If the consulting agency determines that listed species may be present in the area of such proposed action, the action agency prepares a “biological assessment” evaluating whether any such species is “likely to be affected by such action.”⁷⁹ The consulting agency uses the biological assessment, and other information available to it, to render an opinion as to whether the action will cause jeopardy or adverse modification. If those effects are found, the consulting agency must develop reasonable alternatives that will allow the action agency to accomplish the intended purpose of the proposed action without crossing the jeopardy/adverse modification line.⁸⁰

The consultation procedure is what ended the ESA’s honeymoon, when the Supreme Court ruled in 1979 that the prospect of wiping out the snail darter, a small minnow, meant an almost completed federally built dam could proceed no further.⁸¹ Congress added an escape valve to the “no jeopardy” mandate after the Court’s opinion, in the form of a narrow but controversial “exemption” process,⁸² but that procedure has defused very few cases.⁸³ Rather, the Section 7(a)(2) consultation process, given the number of federal decisions it touches,⁸⁴ has fed the ESA a steady diet of controversy.

76. See 16 U.S.C. § 1536(a)(2).

77. 16 U.S.C. § 1536(a)(2).

78. See 16 U.S.C. § 1536(b)-(c).

79. 16 U.S.C. § 1536(c).

80. See 16 U.S.C. § 1536(b)(3)(A).

81. See *supra* n. 4 and accompanying text.

82. See 16 U.S.C. § 1536(e)-(p).

83. See SELS, *supra* n. 1, at 101-02. For a detailed review of the small handful of matters that have even reached the level of exemption review, much less been granted an exemption, see Patrick A. Parienteau, *The Exemption Process and the “God Squad,”* Law, Policy, and Perspectives, *supra* n. 1, at 131, 143-51.

84. One study found that for the period 1987-1992, FWS conducted over 70,000 consultations. See Oliver A. Houck, *The Endangered Species Act and its Implementation by the U.S. Departments of Interior and Commerce*, 64 U. Colo. L. Rev. 277, 318-19 (1993). Similarly, FWS reports that in the period 1998-2001, it conducted over 219,000 consultations. FWS, *Consultations with Federal Agencies: Section 7 of the Endangered Species Act 2* (February 2002), (available at <http://endangered.FWS.gov/consultations/consultations.pdf>).

As the reach of the federal government grows, the number of private activities it funds or authorizes grows as well, meaning that the scope of Section 7 consultations expands in stride. This was the chord three ESA practitioners struck in the 1993 *NR&E* issue, in which they focused on the potential for abuse of the consultation process by FWS and NMFS.⁸⁵ Under its “may affect” standard for initiation of consultation, Section 7(a)(2) can “grab” a project at relatively low thresholds in terms of effect on species, even though its full regulatory force is not in play unless the project will jeopardize the species. And truth be told, FWS and NMFS know they have the benefit of considerable judicial deference on review of their consultation decisions. Might they use the consultation process strategically to extract development concessions they might not otherwise be able to obtain through other ESA programs? The evidence says yes, the authors alleged, as the article described a case in which FWS declared that a private project requiring approval from other federal agencies would jeopardize a listed beach mouse species, thus leading to substantial mitigation concessions by the private developer.⁸⁶ In separate litigation, however, an environmental group’s claim that the project would illegally take the beach mouse was thrown out of court for lack of evidence.⁸⁷ How, one might reasonably query, could the project have jeopardized the continued existence of *the entire species* if it would not take a single *individual* of the species? The authors concluded this was an example of abuse of agency power under Section 7(a)(2).⁸⁸

By 2001, with hundreds of additional species listed and the growth of federal regulatory programs unabated, the Section 7(a)(2) tentacles had grown longer and stronger.⁸⁹ For example, William Stelle’s article in the 2001 *NR&E* issue detailed the utterly complex interaction between Section 7(a)(2) and other federal laws in the area of the Pacific Northwest states affected by numerous salmon population listings.⁹⁰ Salmon and their aquatic and riparian habitat course throughout this part of the nation, carrying the ESA and section 7(a)(2) consultation requirements, it seems, to every corner. Stelle explained how this has complicated federal programs governing industrial discharges, runoff controls, waste cleanups, power generation, pipelines and just about anything affecting water.⁹¹ He concluded that “ESA consultations are becoming the critical path for a wide

85. See William H. Satterfield, Glenn G. Waddell, and Matthew W. Bowden, *Who’s Afraid of the Big Bad Beach Mouse?* 8 Nat. Resources & Env’tl. L. Rev. 13 (Summer 1993).

86. See *id.* at 14.

87. See *id.* at 14-15.

88. See *id.*

89. See *supra* n. 29.

90. See William Stelle, Jr., *Implementing ESA Salmon Listings—Untangling Overlapping Programs*, 16 Nat. Resources & Env. 112 (Fall 2001).

91. See *id.* at 112-117.

variety of federal actions, permits and approvals,”⁹² a prognosis that shows no signs of being reversed.

D. What “Harms” a Species?

As strong a dose as Section 7(a)(2) provides for species conservation, it pales by comparison to the so-called “take” prohibition found in Section 9 of the ESA, which ranks as one of the most powerful and broadly applicable statements of the precautionary principle on the books. Section 9(a)(1) of the ESA instructs that, except as provided elsewhere in the ESA,⁹³ “with respect to any endangered species of fish...it is unlawful for any person subject to the jurisdiction of the United States to...take any such species within the United States or the territorial sea of the United States.”⁹⁴ Although the provision has defined limits,⁹⁵ where it applies it does so sweepingly and with tremendous force. Persons subject to the prohibition include all federal, state and local governments and all private organizations and individuals.⁹⁶ It applies “within the United States,” on public and private lands alike. And it applies to acts that “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect” the protected species.⁹⁷ Within that list of prohibited activities, FWS and NMFS have defined “harm” to include any modification of the species’ habitat—in this case not limited to designated critical habitat—that results in actual death or injury to species members.⁹⁸ As clear and simple as that sounds, the “harm” component of the take prohibition has vexed the law of the ESA for well over a decade notwithstanding the Supreme Court’s 1995 opinion in *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*,⁹⁹ in which the Court approved the administrative regulation defining the harm component.

In the 1993 *NR&E* issue, a group of experienced ESA litigators explained how the stage for *Sweet Home* had been set.¹⁰⁰ The lower federal courts lacked consensus at that time over issues such as burden of proof, whether the regulation applied to populations or individuals, and whether prospective harm could be enjoined.¹⁰¹ Out of this fog emerged the *Sweet Home* litigation, which involved none of these issues—rather, it went straight to the validity of the harm regulation under the statute.¹⁰² At the

92. *Id.* at 112.

93. For discussion of the exceptions, see *infra* text accompanying n. 82.

94. 16 U.S.C. § 1538(a)(1).

95. Section 9 does not apply to plant species (see 16 U.S.C. § 1539(a)(2)), nor does it automatically apply to threatened species of fish and wildlife (see 16 U.S.C. § 1533(d)).

96. All these entities fit the ESA’s definition of “person.” See 16 U.S.C. § 1532(13).

97. 16 U.S.C. § 1532(19).

98. 50 C.F.R. § 17.3 (FWS definition); 50 C.F.R. part 217 (NMFS definition).

99. 515 U.S. 687 (1995) (hereinafter *Sweet Home*).

100. See Steven P. Quarles, John A. Macleod, and Thomas R. Lundquist, *The Unsettled Law of ESA Takings*, 8 *Nat. Resources & Envtl. L. Rev.* 10 (Summer 1993).

101. See *id.* at 12, 59-61.

102. See *id.* at 11.

time the *NR&E* issue was published, the case was on appeal to the D.C. Circuit from a district court opinion upholding the regulation.¹⁰³ The authors predicted that the appellate court's "decision should resolve whether the harm regulation is lawful and, if so, should offer some guidance on what it means."¹⁰⁴ Now there's a laugh!

In 2001, naturally, the focus of attention was the aftermath of the Supreme Court's decision in the *Sweet Home* litigation. It turns out the D.C. Circuit issued two opinions, the first upholding the regulation as within the scope of congressional intent, and the second, by the same panel on reconsideration, striking down the rule as *ultra vires*.¹⁰⁵ The Supreme Court landed somewhere in between, upholding the regulation as not outside of congressional intent, but imposing a variable tort-like burden of proof to the take analysis. According to the Court, the harm definition extends the take prohibition from cases in which the action directly causes death or injury (for example, hunting, shooting and trapping), to cases in which an indirect causal chain is present—i.e., loss of habitat leads in some way to actual death or injury "by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering."¹⁰⁶ Theories of indirect take causation can become quite attenuated and speculative, in which case it would be unreasonable to enforce the take prohibition's rebuttable presumption against the activity as rigorously as in more obvious cases of direct take. For example, assume a developer's plan to build a subdivision would locate new homes in an area within several hundred yards of habitat known to be occupied by members of a listed bird species, but not in such habitat or any of the bird's critical habitat. Opponents of the project could argue some of the residents of the new homes will have cats as pets, some of those cat owners will allow their cats to wander outdoors, some of those cats may venture into the bird's habitat, some of those cats may eat birds, and some of those birds may be individuals of the bird species. Anyone could speculate such possibilities, and it would be unreasonable to burden the developer with proving the postulated scenario is not possible.¹⁰⁷

Rather, as the Court pronounced when it upheld the harm definition, in many cases it is appropriate to impose the burden of proof on the proponent of the indirect harm theory. Thus, the Court emphasized that the harm rule must "be read to incorporate ordinary requirements of proximate causation and foreseeability"¹⁰⁸ and acknowledged "strong arguments that activities

103. See *id.* The opinion is styled as *Sweet Home Chapter of Communities for a Great Oregon v. Lujan*, 806 F. Supp. 279 (D.D.C. 1992).

104. Quarles et al., *supra* n. 100, at 11.

105. See *Sweet Home Chapter of Communities for a Great Oregon v. Babbitt*, 17 F.3d 1463 (D.C. Cir. 1994).

106. 50 C.F.R. § 17.3 (FWS definition); 50 C.F.R. part 217 (NMFS definition).

107. See *Morrill v. Lujan*, 802 F. Supp. 424 (S.D. Ala. 1992) (rejecting ESA citizen suit claim for injunctive relief based on a similar set of allegations).

108. 515 U.S. at 696-97, n. 9.

that cause minimal or unforeseeable harm will not violate the [ESA] as construed.”¹⁰⁹ In her concurrence, Justice O’Connor was more explicit, limiting the scope of the harm rule to “significant habitat modification that causes actual, as opposed to hypothetical or speculative, death or injury to identifiable protected animals.”¹¹⁰

In the 2001 *NR&E* issue, therefore, prominent ESA practitioners Alan Glen and Craig Douglas attempted to divine the meaning of *Sweet Home* as it had played out in the lower federal courts.¹¹¹ The Court’s description of the issue as one basically of proximate cause frames the analysis in terms quite similar to those of a classic *prima facie* tort case.¹¹² Not surprisingly, therefore, Glen and Douglas found lower courts have steadfastly refused to enforce the take prohibition based on attenuated indirect take theories, but have enjoined case-specific instances of prospective take when death or injury was proven to be likely.¹¹³

E. Building the Habitat Conservation Plan Program

The “except as provided” clause of the take prohibition refers to Section 10 of the ESA, the statute’s “permits” provision.¹¹⁴ In particular, Section 10(a)(1) establishes a procedure for FWS and NMFS to approve “incidental take” of species protected under the take prohibition. Section 10(a)(1) requires agencies to approve actions that will cause take incidental to an otherwise lawful purpose *if* the applicant submits a habitat conservation plan (HCP)¹¹⁵ satisfying the agency that, among other things, “the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking”¹¹⁶ and “the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild.”¹¹⁷ This set of stan-

109. *Id.* at 699.

110. *Id.* at 708-09.

111. Alan M. Glen and Craig M. Douglas, *Taking Species: Difficult Questions of Proximity and Degree*, 16 Nat. Resources & Envtl. L. Rev. 65 (2001).

112. For an especially thorough treatment of this topic, likening the *Sweet Home* standard to that of a tort claim, see James R. Rasband, *Priority, Probability, and Proximate Cause: Lessons from Tort Law about Imposing ESA Responsibility for Wildlife Harm on Water Users and Other Joint Habitat Modifiers*, 33 Envtl. L. Rev. 595 (2003).

113. See *id.* at 68-69, 132. For a more recent summary of the history of this administrative interpretation of “harm” and the case law construing it, which confirms what Glen and Douglas predicted, see Steven G. Davison, *The Aftermath of Sweet Home Chapter: Modification of Wildlife Habitat as a Prohibited Taking in Violation of the Endangered Species Act*, 27 Wm. & Mary Envtl. L. & Pol. Rev. 541 (2003).

114. 16 U.S.C. § 1539.

115. The requirements for an HCP are set forth at 16 U.S.C. § 1539(a)(2)(A), and are described *supra* at the chart text accompanying n.s 36-37. “Incidental take,” although not the subject of a specific statutory definition provision, is described elsewhere in the statute as a take that is “incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.” 16 U.S.C. § 1539(a)(1)(B). The FWS and NMFS have adopted this meaning for purposes of the regulations implementing Section 7. 50 C.F.R. § 402.02.

116. 16 U.S.C. § 1539(a)(2)(B)(ii) (emphasis added).

117. 16 U.S.C. § 1539 (a)(2)(B)(iv).

dards allows the agency to condition approvals of case-specific takes on a scale of practicability; yet ensures no such activity, however much the practicability standard counsels in favor of allowing the take, may jeopardize the species' continued existence. Interestingly, although this procedure has been available in the statute since 1982, by 1990 only a handful of HCP permits had been requested and issued.¹¹⁸ Hence, one of the eight themes I have identified in my review of ESA history is a relative newcomer.

In an interesting twist, noted ESA practitioner Rob Thornton authored the HCP article in both the 1993 and the 2001 *NR&E* issues. In 1993, Thornton described the infancy of the program and expressed hope that the incoming Secretary of the Interior, Bruce Babbitt, could make something of it.¹¹⁹ Yet he predicted the program's development would be cramped by lack of funding and the complexities of multiple-landowner, multiple-species settings in which the ESA often plays out.¹²⁰

By 2001, the HCP program had taken off and Thornton spent pages recounting how Babbitt made it happen.¹²¹ One truly has to hand it to Babbitt, because this was taking place during a time in which the ESA was, let's just say, unpopular in Congress. His stroke of brilliance was to forge a two-part agenda employing creative interpretations of ESA authorities.¹²² One side of the agenda focused on enhancing species conservation through greater emphasis of ecosystem-level management of habitat and other resources vital to the sustainability of imperiled species.¹²³ The other side of the agenda focused on providing greater voice and fairness to landowners on

118. By 1992, for example, FWS had issued only 12 HCP permits, whereas it had issued 225 by October 1, 1997. See Defenders of Wildlife, *Frayed Safety Nets: Conservation Planning Under the Endangered Species Act* vi-xiii (1998). For background on these developments and the HCP program in general, see Eric Fisher, *Habitat Conservation Planning Under the Endangered Species Act: No Surprises & the Quest for Certainty*, 67 U. Colo. L. Rev. 371 (1996); Shi-Ling Hsu, *The Potential and the Pitfalls of Habitat Conservation Planning Under the Endangered Species Act*, 29 *Envtl. L. Rep.* 10, 592 (1999); Albert C. Lin, *Participants' Experiences with Habitat Conservation Plans and Suggestions for Streamlining the Process*, 23 *Ecology L.Q.* 369 (1996); J. B. Ruhl, *How to Kill Endangered Species, Legally: The Nuts and Bolts of Endangered Species Act "HCP" Permits for Real Estate Development*, 5 *Envtl. Law.* 345 (1999); Barton H. Thompson, Jr., *The Endangered Species Act: A Case Study in Takings & Incentives*, 49 *Stan. L. Rev.* 305 (1997).

119. See Robert D. Thornton, *The Search for a Conservation Planning Paradigm: Section 10 of the ESA*, 8 *Nat. Resources & Env.* 21, 22-23 (Summer 1993).

120. See *id.* at 23, 65-67.

121. Robert D. Thornton, *Habitat Conservation Plans: Frayed Safety Nets or Creative Partnerships*, 16 *Nat. Resources & Envtl. L. Rev.* 94, 94-98 (Fall 2001).

122. Once again, an insider's account provides a thoughtful perspective on the strategic approach the Babbitt administration took. See Leshey, *supra* n. 7, at 212-14.

123. See, e.g., FWS and NMFS, *Interagency Policy for the Ecosystem Approach to the Endangered Species Act*, 59 *Fed. Reg.* 34, 274 (July 1, 1994); George Frampton, *Ecosystem Management in the Clinton Administration*, 7 *Duke Env'tl. L. & Pol'y F.* 39 (1996) (authored by DOI official). For a survey of the policies the Babbitt administration collected under the ecosystem management theme, see J.B. Ruhl, *Who Needs Congress? An Agenda for Administrative Reform of the Endangered Species Act*, 6 *NYU Env'tl. L.J.* 367, 374-387 (1998).

whose property the imperiled species are found.¹²⁴ This double-barreled agenda took many forms and led to numerous regulatory innovations.¹²⁵

The most prominent example of the impact this approach has had on the ESA is the HCP program, which today is described as “a sweeping new approach to protecting endangered species.”¹²⁶ When Babbitt took over as Secretary of the Interior, the program was simply not on the radar screen of landowners or the agency. Babbitt saw it as the perfect medium for resolving the ever-increasing instances of collision between the ESA take prohibition and urban growth. Beginning primarily in Austin, Texas and in southern California, the number of HCP permits began to grow in the early 1990s.¹²⁷ With experience, the agency added structure and standards to the program.¹²⁸ Landowners increasingly participated in HCPs as a means of resolving ESA issues with lasting certainty, while the agency increasingly promoted the program as a means of managing species conservation across ecosystem-level scales.¹²⁹ Not surprisingly, therefore, HCP permits began to proliferate under Babbitt’s tenure.¹³⁰

Many old school environmentalists objected to this kind of regulatory innovation,¹³¹ but Babbitt not only stuck to the HCP program reforms in the face of intense opposition from preservationists,¹³² he broadened them. As his administration wound down, it adopted the Candidate Conservation Agreement mechanism to provide incentives to landowners to conserve

124. See Ruhl, *supra* n. 123, at 388-400 (survey of policies serving this purpose).

125. For a summary of the status at the time the Bush Administration took over of the various regulatory innovations attributable to the Babbitt era, see Eugene H. Buck et al., Congressional Research Serv. Issue Brief No. IB10072, *Endangered Species: Difficult Choices* 9-12 (June 19, 2002).

126. Farber, *supra* n. 38, at 38.

127. See Thornton, *supra* n. 121, at 94-95 (southern California experience).

128. For example, FWS has published a lengthy handbook describing the steps required to obtain an HCP permit. See Fish and Wildlife Service & National Marine Fisheries Service, *Endangered Species Habitat Conservation Planning Handbook* (1996) (available at <http://endangered.fws.gov/hcp/hcpbook.html>).

129. See Thornton, *supra* n. 121, at 94-95.

130. As of April 17, 2002, FWS had approved 379 HCPs ranging in scope from a few acres to over 1 million acres and covering a total of 30 million acres and 200 listed species. See FWS, *Endangered Species Habitat Conservation Program*, <http://endangered.FWS.gov/hcp/index.html> (accessed April 21, 2004); FWS, *Habitat Conservation Planning and the Incidental Take Permitting Process 1* (Nov. 2001) (available at http://endangered.fws.gov/hcp/HCP_Incidental_Take.pdf). For a running count, see FWS, *General Statistics for Endangered Species*, <http://ecos.FWS.gov/servlet/TessStatReport>. For an excellent statistical summary of the 208 HCP permits that FWS had issued nationally by August 1997, including acreage statistics, see *National Center for Ecological Analysis and Synthesis & American Institute of Biological Sciences, Using Science in Habitat Conservation Plans* (1999) (available at <http://www.nceas.ucsb.edu/projects/hcp>).

131. See, e.g., *Defenders of Wildlife, Frayed Safety Nets: Conservation Planning Under the Endangered Species Act* vi-xiii (1998) (pessimistic assessment of the HCP program); John Kostyack, *Surprise!* *Envtl. F.*, Mar.-Apr. 1998, at 19 (attorney for National Wildlife Federation presents extensive criticism of the Babbitt administration’s HCP reforms); see generally Thornton, *supra* n. 121, at 95-96 (describing other organizations’ criticisms).

132. Indeed, some environmental groups have successfully challenged certain limited aspects of the contract-based HCP reform movement. See *Spirit of the Sage Council v. Norton*, 2003 WL 22927492 (D.D.C. Dec. 11, 2003).

habitat of candidate species,¹³³ and developed the Safe Harbors mechanism to provide incentives to promote the introduction of habitat of species already listed.¹³⁴ The Bush Administration inherited them as a relatively new and untested set of policies and thus all eyes, including Thornton's, turned in 2001 to the Department's new leadership.¹³⁵ For the most part, the Bush Administration, under Secretary of the Interior Gale Norton, has held the course for HCP permitting and related programs.¹³⁶

F. *Struggling with the Fit Between Science and the ESA*

As noted above, a dominant feature of the ESA is its dependence on complex scientific findings to make legal decisions. The 1993 NR&E issue recognized the importance of science to the ESA by devoting an entire article to the topic, in which ecologist Robert Taylor provided a thoughtful account of the difficulties of identifying protectable taxonomic units.¹³⁷ Curiously, however, none of the other articles in that issue spent much time on the science question, devoting their attention primarily to technical legal questions or sweeping objectives of congressional reform.

By contrast, the science-law interface dominates discussion in many articles found in the 2001 NR&E issue. Glen and Douglas, for example, identify scientific debate as central to the determination of what constitutes take of species under the harm definition,¹³⁸ Geoffrey and Doyle delve extensively into the science problems associated with identifying distinct population segments,¹³⁹ and Feldman and Brennan discuss at length the science side of critical habitat designations.¹⁴⁰

The difference, I believe, between the early 1990s and early 2000s is that substantive legal issues had yet to be fully worked out in the 1990s,

133. See *Announcement of Final Policy for Candidate Conservation Agreements with Assurances*, 64 Fed. Reg. 32, 726 (June 17, 1999). Candidate Conservation Agreements allow a landowner to take conservation steps on behalf of species that are candidates for listing in return for an assurance that, if the species is later listed, the landowner has in place the necessary incidental take authorization to allow continuation of land uses covered under the agreement.

134. See *Announcement of Final Safe Harbor Policy*, 64 Fed. Reg. 32, 717 (June 17, 1999). Safe Harbor agreements allow a landowner to foster conditions suitable for listed species for determined periods of time in return for an assurance that later development will be allowed on the property to a level that returns the species' to its "baseline" conditions existing on the property at the time of the agreement.

135. See Thornton, *supra* n. 121, at 98-99.

136. For example, the agency recently proposed policies and adopted final regulations strengthening the Candidate Conservation Agreement and Safe Harbor programs. See *Draft Handbook for Candidate Conservation Agreements with Assurances and Enhancement of Survival Permitting*, 68 Fed. Reg. 37170 (June 23, 2003) (available at <http://endangered.FWS.gov/candidates/ccaahandbook.html>); *Safe Harbor Agreements with Assurances: Revisions to the Regulations*, 69 Fed. Reg. 24084 (May 3, 2004) (to be codified at 50 C.F.R. pt. 17).

137. See Robert J. Taylor, *Biological Uncertainty in the Endangered Species Act*, 8 Nat. Resources & Envtl. L. Rev. 6 (Summer 1993).

138. See Glen & Douglas, *supra* n. 111, at 69, 132.

139. See Geoffrey & Doyle, *supra* n. 56, at 87, 133.

140. See Feldman & Brennan, *supra* n. 62, at 9-93.

whereas today what largely remains to be determined under the ESA are *methodological* issues. In other words, now that the legal framework is fairly stable, the question of how to use science within that framework has become a dominant issue. Thus, for example, Congress routinely entertains (but does not pass) bills designed to instill “sound science” methods into ESA programs.¹⁴¹ The battle over ESA methodology shows no sign of abating.¹⁴²

G. Reforming the Law

In what today seems like a comical display of political naiveté, the Editorial Board of *NR&E* in the early 1990s, of which I was a member, almost declined to devote an issue of the journal to the ESA because we were sure that legislative overhaul of the statute was imminent and would render our issue outdated soon after publication. In the end, we gambled on the issue and covered ourselves by devoting a point-counterpoint pair of articles to legislative reform.¹⁴³ In a heated debate, both authors anticipated what one called “the conservation fight of the century.”¹⁴⁴ Numerous references to the outcome of congressional action could be found in many of the other articles as well.¹⁴⁵

Of course, no legislative reform occurred then, having been derailed by Bruce Babbitt’s administrative reform gambit discussed above. And prevailing politics keep the ESA in legislative limbo—beyond the reach of Democrats in the Republican-controlled Congress, but too hot for Republicans to touch. So, with the realization that so much could be done through administrative innovation, the prospect of congressionally led reform has withered to nil. In the 2001 *NR&E* issue, for example, not a single article so much as suggests that Congress might take on reform of particular ESA issues, much less a comprehensive effort. Why waste one’s breath or ink discussing the topic. Frankly, I don’t bother reading the bills that are filed anymore. Rather, while the trend of reforming the ESA has not abated, the forum has shifted from Congress to the agencies, where far more interesting events have transpired of late.¹⁴⁶

141. See e.g., H.R. 4840, 107th Cong., 2d Sess. (May 23, 2002). For a more recent version, see S.369, 108th Cong, 1st Sess. (Feb. 12, 2003).

142. For an in-depth analysis of this trend, see J.B. Ruhl, *The Battle Over Endangered Species Act Methodology*, __ *Envtl. L. Rev.* __ (forthcoming).

143. See William Robert Irvin, *The Endangered Species Act: Keeping Every Cog and Wheel*, 8 *Nat. Resources & Env'tl. L. Rev.* 36 (Summer 1993) (National Wildlife Federation staff) and Michelle Desiderio, *The ESA: Facing Hard Truths and Advocating Responsible Reform*, 8 *Nat. Resources & Env'tl. L. Rev.* 37 (Summer 1993) (National Association of Home Builders staff).

144. Irvin, *supra* n. 143, at 76.

145. See, e.g., Quarles et al., *supra* n. 5, at 61 (“ongoing legislative debates on the sixth reauthorization of the ESA may produce a more easily administered taking standard and exemption process”).

146. For an in-depth discussion of where FWS may take regulatory innovation of the ESA under the Bush Administration, see J.B. Ruhl, *Endangered Species Act Innovations in the Post-Babbittian Era—Are there Any?*, __ *Duke Env'tl. L. & Pol'y F.* __ (forthcoming).

H. Defining Values and Objectives

The final of my eight trends permeates the ESA's history, and continues to define debate in all the other trends—what is it we are trying to accomplish, and how far are we willing to go? The range of views on this question is wider under the ESA than for any other environmental law. Compare this observation:

If we're going to avert this crisis of extinction, we've got to think about how to maintain enough space for nature, not just behind fences but everywhere.

To this one:

Those of you who are responsible for preserving wildlife in your states know that the ESA is not achieving our shared goal of recovering endangered species....[W]e're not getting the job done—either for the species or for private landowners impacted by the Act.

Both of these quotes are from the back covers of the *NR&E* issues I have used in this article. The first is from Bruce Babbitt when he was Secretary of the Interior.¹⁴⁷ The second is from Gale Norton when she was Secretary of the Interior.¹⁴⁸ The difference between the two is nuanced, but unmistakable. And behind these comments, moderated by political protocols, rest sharply divergent views of the ESA. At the extremes, the ESA is portrayed as either a toehold for communism or our only hope against global biosphere collapse.¹⁴⁹ Yes, most of us have a “shared goal” of avoiding further harm to other species; whether and how that goal is balanced against other goals, however, remains an obstacle to any hope of a shared vision for the ESA.

IV. CONCLUSION

It is difficult to predict where the ESA will lead from here, except to say that I am confident the themes I have discussed above will remain at the core of the statute's evolution. Nevertheless, I will endeavor some modest proposals about the future of ESA law and policy in Congress, the agencies and the courts.

First, in Congress I expect more of the same, which is to say very little. True, Congress has cloaked efforts to exempt some federal agency actions

147. See 8 *Nat. Resources & Envtl. L. Rev.* (Summer 1993) (back cover quote of Bruce Babbitt taken from an interview in the July 8, 1993 issue of *Rolling Stone*).

148. See 16 *Nat. Resources & Envtl. L. Rev.* (Fall 2001) (back cover quote of Gale Norton taken from a March 19, 2001 speech).

149. In a recent “Google” search I found over 1300 web pages discussing the ESA as an example of communism.

from ESA restrictions in high-profile issues such as national security and catastrophic wildfires, but these are limited initiatives falling far short of any direct structural changes to the ESA.¹⁵⁰ As for the agencies, while the Bush Administration has not wavered from Babbitt's HCP reforms, it has yet to find a substantive theme it can call its own. Early in Gale Norton's tenure as Interior Secretary, the agency cooked up what they have called the "4 Cs," which stands for "conservation through cooperation, communication and consultation." The official word on what this means is as follows:

To foster a Nation of citizen stewards, Secretary Norton is advancing a 4 C's philosophy—conservation through cooperation, communication and consultation. The Department [of the Interior] is expanding the tools in the conservation "toolbox" available to private landowners and federal land managers to enhance and achieve conservation. These tools include over \$500 million in conservation grants, including \$113 million proposed in FY 04 for the Cooperative Conservation Initiative (CCI), which includes funds for our highly successful Partners for Fish and Wildlife Program, our Coastal Program, and cooperative conservation challenge cost-share grants. Our Private Stewardship Grant program and Landowner Incentive Program, founded on initiatives envisioned by President Bush when he was Governor of Texas, provide assistance to private landowners in their voluntary efforts to protect threatened, imperiled and endangered species.¹⁵¹

If anything, this approach has focused on fostering private land management rather than simply federal acquisition of land and its reliance on states as a principal channel for much of the grants initiative, features many environmentalists have praised.¹⁵² Yet, while the agency has put the grant programs into place,¹⁵³ results thus far in terms of grant dollars actually paid have been of minimal consequence.¹⁵⁴ It is too early to tell whether this

150. See National Defense Authorization Act for Fiscal Year 2004, Pub. L. No. 108-136, 117 Stat. 1392 (2003).

151. See U.S. Department of the Interior, *Strengthening Citizen Stewardship and Cooperative Conservation*, <http://www.doi.gov/initiatives/conservation.html> (accessed April 21, 2004).

152. See Michael J. Bean, *Missed Opportunities for Incentive-Based Conservation*, *Endangered Species & Wetlands Rep.*, May 2003, at 6 ("for the most part, the environmental community acknowledged the desirability of initiatives such as these").

153. See U.S. Fish & Wildlife Service, *Private Stewardship Program: Grants and Other Assistance for Private Landowners*, http://endangered.FWS.gov/grants/private_stewardship.html (accessed November 4, 2003); U.S. Fish & Wildlife Service, *Cooperative Endangered Species Conservation Fund (Section 6) Grants to States and Territories*, http://endangered.FWS.gov/grants/sec6_rfp.html (accessed November 4, 2003).

154. See Bean, *supra* n. 152, at 6-7 (discussing the lack of actual spending in either of the grant programs as of May 2003); Dean Scott, *Bush Administration Gets Mixed Reviews On Agreements for Voluntary Conservation*, 34 *Env. Rep. (BNA)* 2304 (2003) (reporting that, according to Michael Bean,

manifestation of the 4 Cs will achieve the status of truly innovative reform of the ESA or that of a failed experiment.

Lastly, I fear that in the courts, the likely trend is that of increasing micro-management of FWS and NMFS under Section 4, and of other federal agencies under Section 7(a)(2). As noted above, litigation leading to court-ordered decision deadlines under Section 4, especially overdesignations of critical habitat, has engulfed the agency and its listing budget. Citizen suits alleging federal agency violations of consultation duties were frequent as early as the 1993 *NR& E* issue,¹⁵⁵ and have only grown in number. Each year for the past six years I compiled an annual review of ESA cases for the American Bar Association,¹⁵⁶ and each year I must be more selective in deciding which Section 4 and Section 7(a)(2) cases to discuss from the growing number in both categories.

Whichever way the ESA's future unfolds in these three legal and policy forums, what I find remarkable about the statute is that, while the themes remain the same, the law of the ESA continues to be dynamic and relevant. It is a statute that touches many lives, human and otherwise, and manages to evoke strong emotions. I have worked with it closely for twenty years, and yet it continues to surprise me. I highly recommend it!

as of October 2003 "none of the [grant] recipients has yet to receive a check" in the private landowner program).

155. See Eileen Sobeck, *Enforcement of the Endangered Species Act*, 8 Nat. Resources & Envtl. L. Rev. 30, 73 (Summer 1993) ("The vast majority of citizens' suits to date have involved claims that federal agencies have violated the terms of section 7 of the Act.").

156. See, e.g., *Environment, Energy, and Resources Law: The Year in Review 2002* 213-19 (2003).