



The Endangered Species Act (ESA) in the 113th Congress: New and Recurring Issues

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Summary

The Endangered Species Act (ESA; P.L. 93-205, 16 U.S.C. §§1531-1543) was enacted to increase protection for, and to provide for the recovery of, vanishing wildlife and vegetation. Under ESA, species of plants and animals (both vertebrate and invertebrate) can be listed as endangered or threatened according to assessments of their risk of extinction. Habitat loss is the primary cause for listing species. Once a species is listed, powerful legal tools are available to aid its recovery and protect its habitat. Accordingly, when certain resources are associated with listed species—such as water in arid regions like California, energy resources in sagebrush country, or free-flowing rivers—ESA is seen as an obstacle to continued or greater human use of these resources. ESA may also be controversial because dwindling species are usually harbingers of broader ecosystem decline or conflicts. As a result, ESA is considered a primary driver of large-scale ecosystem restoration issues.

Previous Congresses have conducted oversight hearings on the implementation of various federal programs and laws that address threatened and endangered species. This has ranged from addressing listing and delisting decisions under ESA to justifying funding levels for international conservation programs. In the 113th Congress, resource-specific issues may be addressed independently, whereas oversight on the implementation of ESA may be addressed in debates about particular species (e.g., wolves, polar bears, sage grouse, and salmon).

Major issues for the 113th Congress include how to allocate funds to activities and programs seeking to assist species adaptation to climate change. Other major issues concerning ESA in recent years have included the role of science in decision-making, critical habitat (CH) designation, incentives for property owners, and appropriate protection of listed species, among others.

Authorization for spending under ESA expired on October 1, 1992. The prohibitions and requirements of ESA remain in force, even in the absence of an authorization, and funds have been appropriated to implement the administrative provisions of ESA in each subsequent fiscal year. Proposals to reauthorize and extensively amend ESA were last considered in the 109th Congress, but none was enacted. No legislative proposals were introduced in the 110th, 111th, 112th, or 113th Congresses for a broad reauthorization of ESA.

This report discusses oversight issues and legislation in the 113th Congress that address ESA implementation and management of endangered and threatened species.

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Introduction

Increasing numbers of animal and plant species face possible extinction. Endangered and threatened species—and the law that protects them, the 1973 Endangered Species Act (ESA, P.L. 93-205, as amended; 16 U.S.C. §§1531-1543)—are controversial, in part, because dwindling species are often harbingers of resource scarcity. The most common cause of species’ decline is habitat loss or alteration. Habitat loss occurs due to development, climate change, changes in land management practices, competition from invasive species, and other factors, nearly all related to economic, political, or social interests.¹

ESA has been among the most contentious environmental laws because its substantive provisions can affect the use of both federal and nonfederal lands and resources. Under the act, species are to be listed as threatened or endangered based solely on the best available scientific information, without regard to economic considerations. Congress faces the issue of how to balance these economic interests with the protection of endangered and threatened species and, as stated in ESA, “the ecosystems upon which endangered species and threatened species depend.” Because of strong support and strong opposition, ESA has not been reauthorized since the last authorization expired in 1992. In the 109th Congress, there were several unsuccessful attempts to enact comprehensive legislation that would have reauthorized ESA.² Congressional efforts in the 110th, 111th, and 112th Congresses focused on addressing specific controversial features of ESA and on oversight of concerns such as the science used for making decisions and designating critical habitat, but few bills related to ESA were enacted.³ In the 113th Congress, no measures have been introduced to reauthorize the act. A few bills have been introduced to limit its reach or to prevent listing of one or more species.

Background

Overview

The 1973 ESA was a comprehensive attempt to protect species at risk of extinction and to consider habitat protection as an integral part of that effort. In addition, an express purpose of ESA is to “provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved” (16 U.S.C. §1531(b)). Under ESA, species of plants and animals (both vertebrate and invertebrate) may be listed as either endangered or threatened according to assessments of the risk of their extinction.⁴ More flexible management can be provided for species listed as threatened, compared to those listed as endangered. In addition to an entire species, distinct population segments of vertebrate species may also be listed

¹ For example, see CRS Report R42375, *H.R. 1837—The Sacramento-San Joaquin Valley Water Reliability Act*, by (name redacted)

² For a review of action by the 109th Congress on ESA, see CRS Report RL33468, *The Endangered Species Act (ESA) in the 109th Congress: Conflicting Values and Difficult Choices*, by (name redacted) et al.

³ For a review of actions in recent Congresses, see CRS Report RL33779, *The Endangered Species Act (ESA) in the 110th Congress: Conflicting Values and Difficult Choices*, by (name redacted) et al.; CRS Report R40185, *The Endangered Species Act (ESA) in the 111th Congress: Conflicting Values and Difficult Choices*, by (name redacted) et al.; and CRS Report R41608, *The Endangered Species Act (ESA) in the 112th Congress: Conflicting Values and Difficult Choices*, by (name redacted) et al.

⁴ Endangered species are defined as those species “in danger of extinction throughout all or a significant portion of its range” while threatened species are defined as species “likely to become an endangered species in the foreseeable future throughout all or a significant portion of its range.”

as threatened or endangered. Consequently, some populations of Chinook, coho, chum, and sockeye salmon in Washington, Oregon, Idaho, and California have been listed under ESA, even as other healthy populations of these same species in Alaska are not listed and may be commercially harvested. More limited protection is available for plant species under ESA. Once a species is listed, legal tools, including penalties and citizen suits, are available to aid species recovery and to protect habitat. Use of these tools, or the failure to use them, has led to conflict.⁵

ESA is administered by the Fish and Wildlife Service (FWS, Department of the Interior) for terrestrial and freshwater species and some marine mammals, and by the National Marine Fisheries Service (NMFS) in the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA) for the remaining marine and anadromous species.⁶ The U.S. Geological Survey's Ecosystems Division conducts research on species for which FWS has management authority; NMFS conducts research on the species for which it is responsible.

As of December 26, 2013, a total of 1,268 species of animals and 877 species of plants were listed as either endangered or threatened under the ESA, of which the majority (645 species of animals and 874 species of plants) occur in the United States and its territories (see **Figure 1** and **Figure 2**).⁷ The remaining species occur only in other countries.⁸ Of the 1,519 U.S. species, 1,144 (75%) are covered in active recovery plans.⁹ In the most recent data available, FY2011 expenditures on endangered and threatened species, by all federal and state agencies together, totaled about \$1.39 billion, of which about \$1.34 billion was reported by federal agencies and about \$57.8 million was reported by the states.¹⁰ The top 10 species with the highest total FY2012 expenditures (excluding land acquisition costs) included 7 subpopulations of steelhead and Pacific salmon (\$352.5 million for all 7 together), pallid sturgeon (\$53.8 million), bull trout (\$37.7 million), and red-cockaded woodpecker (\$37.9 million). These expenditures can cover a wide variety of activities, such as streamside cleanup, land acquisition, creation of artificial nest sites, etc.

⁵ A more detailed discussion of the major provisions of ESA is provided in CRS Report RL31654, *The Endangered Species Act: A Primer*, by (name redacted)

⁶ *Anadromous* refers generally to fish that hatch in fresh water, migrate to the ocean to grow and mature, and then migrate back to fresh water to reproduce. For background on ESA programs of the two administering agencies, see FWS programs at <http://www.fws.gov/endangered/> and NMFS programs at <http://www.nmfs.noaa.gov/pr/species/>.

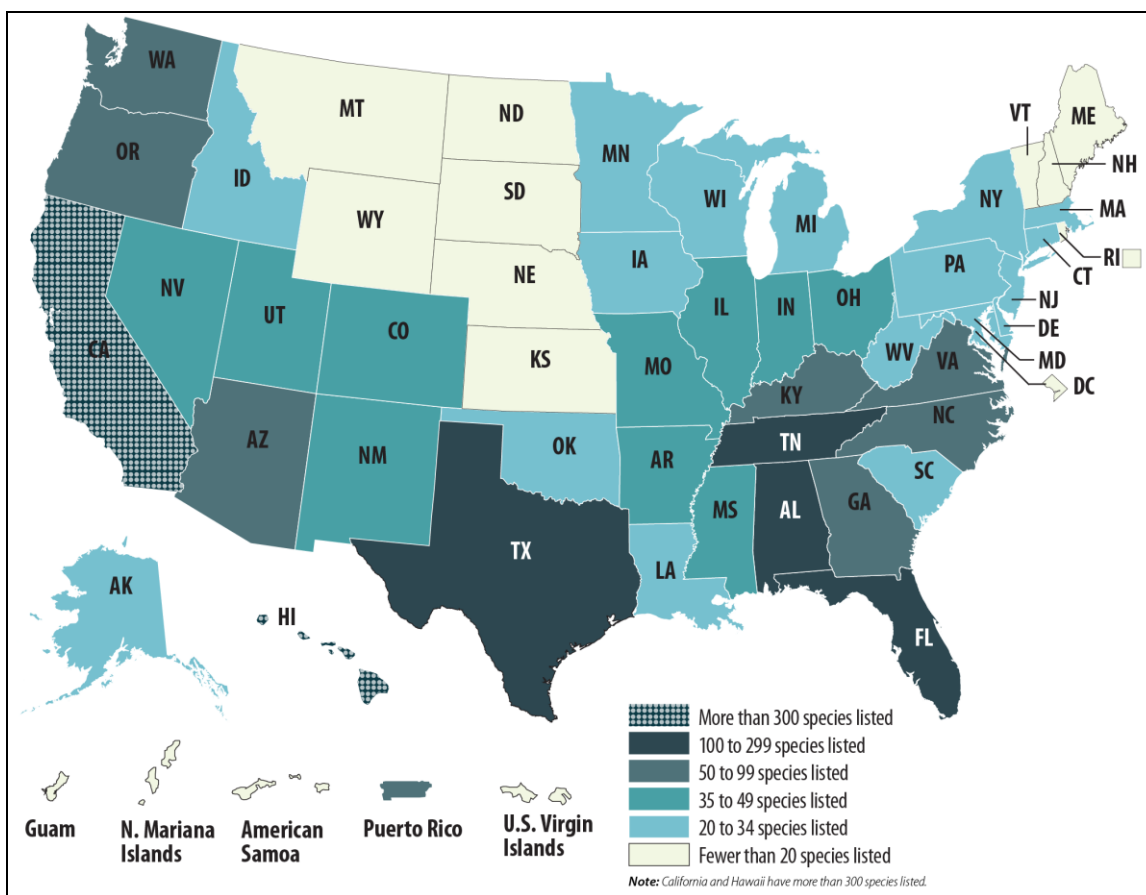
⁷ For comparison, the International Union for Conservation of Nature and Natural Resources (IUCN; World Conservation Union) announced in 2013 that it considered 21,286 species to be threatened with extinction—an increase of 2935 species (14%) since 2010. In addition, the IUCN identified 860 species that had become extinct or were extinct in the wild (i.e., found only in captivity or in cultivation), including 268 species in the United States. For more information, see <http://www.iucnredlist.org/about/summary-statistics>.

⁸ As early as 1940, when the United States signed what is known as the Western Hemisphere Convention, the United States has acknowledged a goal of conserving species and their habitats in other countries. Subsequent U.S. ratification of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) also confirmed U.S. interest in preserving nature, not just on our own shores, but worldwide. ESA protects foreign endangered species by regulating their importation into the United States, but does not directly regulate any take of foreign species in their country of origin. FWS reviews foreign species under the ESA's listing criteria and conducts a required regulatory and public comment process before listing a foreign species under ESA. Listed foreign species can be imported to the United States if they meet requirements of §10 or §4(d) of ESA.

⁹ Statistics are updated daily at http://ecos.fws.gov/tess_public/Boxscore.do.

¹⁰ Fish and Wildlife Service, *Federal and State Endangered and Threatened Species Expenditures, Fiscal Year 2012*; available at <http://www.fws.gov/endangered/esa-library/pdf/2012.EXP.FINAL.pdf>.

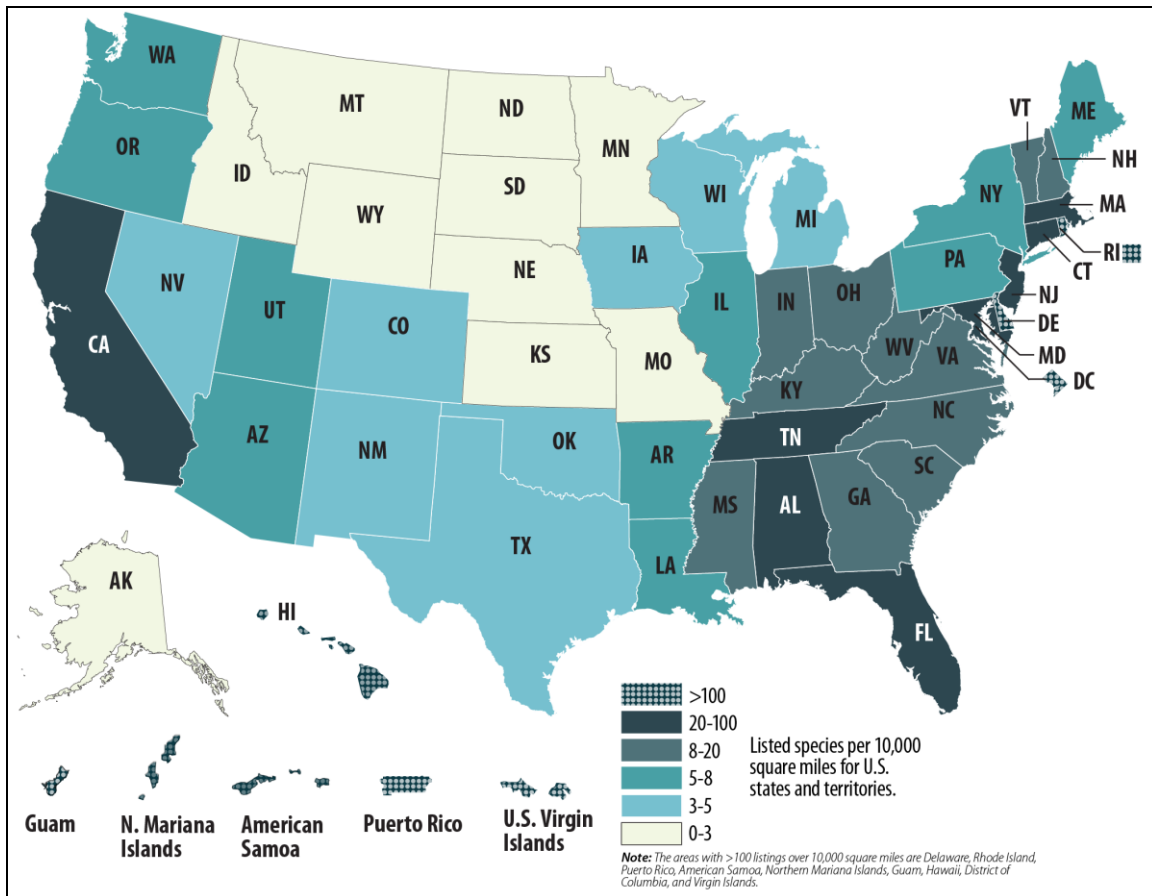
Figure I. Number of Listed Species, by State and Territory



Source: Created by CRS from data on the numbers of listed species available at http://ecos.fws.gov/tess_public/pub/stateListing.jsp, Jan. 7, 2013.

However, species do not exist in isolation, but evolve and fluctuate in abundance because of their relationships with other species and the physical environment. Conservationists increasingly are talking about not only species, but also ecosystems as the units of interest. At times, efforts to protect and recover listed species are controversial because a declining—even seemingly insignificant—species is a flag that signals both an ecosystem in danger and a scarcity of economic resources. These actions have been especially controversial where they affect resource-based economies. Controversies in which ESA-listed species are or have been part of larger debates include water supply in central California (water for some users vs. effects of water supply conveyance and other factors on commercial and recreational fishing), Tennessee’s Tellico Dam (water storage and construction jobs versus farmland protection and tribal graves, as well as snail darters); Pacific Northwest timber harvest (protection of logging jobs and communities versus commercial and sport fishing, recreation, and ecosystem protection, including salmon and spotted owls); and management of the Apalachicola Basin in Alabama, Florida, and Georgia (allocation of water among metropolitan, agricultural, and industrial users along with commercial and recreational fishing interests, as well as one listed fish and three listed mussel species).

Figure 2. Density of Listed Species, by State and Territory



Source: Created by CRS from data on the numbers of listed species available at http://ecos.fws.gov/tess_public/pub/stateListing.jsp, Jan. 7, 2013; Areas of jurisdictions from Tables 1 and 17 in *2000 Census of Population and Housing*, available at <http://www.census.gov/prod/cen2000/phc3-us-pt1.pdf>.

Notes: Areas of jurisdiction include both land and water.

ESA and International Wildlife¹¹

For foreign species, the Secretary of the Interior is authorized to consider actions taken by foreign governments or agencies on species when determining if a foreign species should be listed. Further, the Secretary must make determinations for listing species based on the best available scientific and commercial data (which may include foreign sources) and taking into account efforts by foreign governments and agencies.¹² FWS reviews foreign species under the ESA's listing criteria, with a required regulatory and public comment process before listing. Foreign governments and scientific organizations can and do comment on proposed listings.

Foreign species are also addressed by international wildlife treaties. ESA is the domestic vehicle to implement the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES; TIAS 8249, signed by the United States on March 3, 1973); and the Convention on

¹¹ This section was prepared by (name redacted), Specialist in Natural Resources Policy ([redacted]@crs.loc.gov, 7-....).

¹² 16 U.S.C. 1533(b).

Nature Protection and Wildlife Preservation in the Western Hemisphere (the Western Hemisphere Convention; 50 Stat. 1354; TS 981, signed by the United States on October 12, 1940).¹³ CITES focuses on extinction due specifically to trade. It parallels ESA by dividing its listed species into groups according to the estimated risk of trade-caused extinction, but uses three categories (called appendices), rather than two.¹⁴ CITES does not have enforcement authority and regulates the international trade of species through permits. Under ESA, violations of CITES are also violations of U.S. law if committed within U.S. jurisdiction (16 U.S.C. §1538), by a person subject to U.S. jurisdiction. ESA also regulates import and export of controlled wildlife products made from listed species (e.g., sport hunted trophies) and provides some specified exceptions to import and export regulations.¹⁵

According to U.S. government estimates, illegal trade in endangered wildlife products, including elephant ivory, rhino horns, and turtle shells, is worth at least \$7 billion annually.¹⁶ (This figure does not include illegal logging and illegal fishing, which can account for roughly an additional \$30 billion to \$100 billion annually and \$10 billion to \$23 billion annually, respectively.)¹⁷ Such figures may place illegal wildlife trafficking among the most lucrative criminal activities worldwide, behind only narcotics, counterfeiting, and human trafficking.

Prosecutions by the Department of Justice of ESA and CITES violations have, in some cases, led to the dismantling of wildlife trafficking rings in the United States and throughout the world. Recent activity in the 113th Congress has addressed the illegal wildlife trade, in particular elephant and rhino poaching and the trade of ivory.¹⁸

Issues in the 113th Congress

ESA reauthorization has been on the legislative agenda since the funding authorization expired in 1992, and bills have been introduced in each subsequent Congress to address various aspects of endangered species protection. Below are descriptions of some of the issues that have or are likely to receive attention in the 113th Congress.

¹³ For additional background, see out-of-print CRS Report R42447, *The Endangered Species Act (ESA) as Implementing Legislation for International Treaties*, available from the author.

¹⁴ For additional information on CITES, see <http://www.cites.org/>. For the most part, species found in Appendices I and II of CITES are also listed under ESA and vice-versa.

¹⁵ For more information on CITES, see CRS Report RL32751, *The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): Background and Issues*, by (name redacted) and (name redacted) .

¹⁶ State Department, “Secretary Clinton Hosts Wildlife Trafficking and Conservation,” media note, Nov. 8, 2012. According to the National Intelligence Council, environmental crime, defined to include illegal wildlife trade, logging, trade in CFCs, and toxic waste dumping, generates an estimated \$20 billion to \$40 billion per year for transnational organized crime. See Office of the Director of National Intelligence, *Special Report: The Threat to U.S. National Security Posed by Transnational Organized Crime*, 2011.

¹⁷ David J. Agnew et al., “Estimating the Worldwide Extent of Illegal Fishing,” *PLoS ONE* 4(2), Feb. 2009; Christian Nellemann, ed. (INTERPOL and United Nations Environment Programme (UNEP)), *Green Carbon, Black Trade*, 2012.

¹⁸ For more on additional aspects of U.S. international wildlife conservation, CRS Report RS21157, *International Species Conservation Funds*, by (name redacted) and (name redacted) , out-of-print CRS Report R42067, *The Lacey Act: Protecting the Environment by Restricting Trade* (available from the author), and CRS Report R42119, *The Lacey Act: Compliance Issues Related to Importing Plants and Plant Products*, by (name redacted) .

Are Species Protection and Restoration Working?

The answer to this question depends on what is measured. Because a major goal of ESA is the recovery of species to the point at which ESA protection is no longer necessary, this may be a useful starting point.¹⁹ In the 40 years since ESA was enacted, 58 U.S. and foreign species or distinct population segments thereof have been delisted.²⁰ The reasons cited by FWS are (a) recovery (30 species); (b) extinction (10 species);²¹ (c) taxonomic revisions (7 species); and (d) original data in error or legislative changes to ESA (11 species). Recovered species include the American alligator, bald eagle, brown pelican (two areas), peregrine falcon (two subspecies), gray wolf (four areas), gray whale (except the Western Pacific Ocean), and three species of kangaroo. Extinct species include the dusky seaside sparrow, Guam broadbill (a bird), and two small fish living in desert springs. However, it can be quite difficult to prove whether extraordinarily rare species are simply that or, in fact, are already extinct. For example, the endangered ivory-billed woodpecker, long thought by many to be extinct, was thought to have been rediscovered in a remote area of Arkansas a few years ago, and that rediscovery is itself in question. Rare species are, by definition, hard to find.

Some have asserted that ESA is a failure because only 30 species have been delisted due to recovery; on the other hand, only 10 species have been delisted due to extinction. Others note that full recoveries are relatively few because the two principal causes of extinction—habitat loss and invasive species—continue to increase. In addition, “only those species whose situations are known to be the most desperate will receive priority.”²² This policy will make recovery difficult, as conservation intervention would occur in only the later phases of a species’ decline.

Another measure of “success” might be the number of species that have stabilized or increased their populations, even if the species are not actually delisted; for example, at least 35 species have been reclassified (downlisted) from endangered to threatened.²³ Under this standard, ESA could be considered a success, since a large number of listed species (41%, according to one study)²⁴ have improved or stabilized their population levels after listing. Other species (e.g., red wolves and California condors) might not exist at all without ESA protection, and this too might be considered a measure of success, although these species are still rare.²⁵ One approach to gauge progress might be to look at what proportion of the recovery objectives identified in species recovery plans have been achieved. **Table 1** indicates how the rate of achievement of recovery objectives changes with the increasing length of time after species are listed. In addition, one author concluded that the impact of species conservation efforts may be underestimated because

¹⁹ For a more extended discussion of this issue, see Maile C. Neel et al., “By the Numbers: How is Recovery Defined by the US Endangered Species Act?” *BioScience*, vol. 62, no. 7 (July 2012): 646-657.

²⁰ These figures were updated on December 26, 2013; for the latest information, see http://ecos.fws.gov/tess_public/DelistingReport.do.

²¹ However, some may have been extinct already when listed.

²² National Research Council Commission on Life Sciences, *Science and the Endangered Species Act*, National Academy Press (Washington, DC: 1995), p. 169.

²³ Krishna Gifford and Deborah Crouse, “Thirty-Five Years of the Endangered Species Act,” *Endangered Species Bulletin*, v. 34, no. 1 (Spring 2009): 4-7.

²⁴ U.S. Dept. of the Interior, Fish and Wildlife Service, *Endangered Species Bulletin*, Washington, DC, September 2007. Available at http://www.fws.gov/endangered/bulletin/2007/ES_Bulletin_09-2007.pdf.

²⁵ See archived CRS Report R42119, *The Lacey Act: Compliance Issues Related to Importing Plants and Plant Products*, by (name redacted) .

measures do not account for species that (1) would have deteriorated further in the absence of conservation actions, or (2) have improved numerically, but not enough to change their status.²⁶

Table I. Percent Recovery Achieved Versus Time Listed

(data as of September 30, 2006)

Recovery Plan objectives	% of 48 species listed 5 years or less	% of 279 species listed 6-10 years	% of 940 species listed 11 years or more
0%-25% recovery achieved	100	95.0	67.8
26%-50% recovery achieved	0	3.9	22.8
51%-75% recovery achieved	0	0.4	6.2
76%-100% recovery achieved	0	0.7	3.2

Source: FWS, *Report to Congress on the Recovery of Threatened and Endangered Species: Fiscal Years 2005-2006*, p. 1-53. Note that “% recovery achieved” has not been reported in more recent reports in this series.

An April 2005 study by the Government Accountability Office (GAO) found that although FWS spent almost half of its recovery funds on the highest-priority species, in practice, factors other than a species’ priority ranking (e.g., regional office workload and opportunities for partnerships to maximize scarce recovery funds) determine how funding is allocated.²⁷ GAO found that FWS did not have a process to assess funding decisions routinely to ensure that they are appropriate. On May 17, 2005, the majority staff of the House Committee on Resources released an oversight report entitled *Implementation of the Endangered Species Act of 1973*. It reviewed and critiqued various ways that recovery might be measured, noting among other things, the difficulty in choosing a measurable standard. In 2006, GAO examined federal efforts to recover 31 selected species.²⁸ GAO determined that, while many factors affected the recovery of species, recovery plans played an important role in the recovery of all but one of the species examined. Critics claimed the GAO study was biased to reflect positively on the recovery planning process by the selection of species examined.

A December 2008 study by GAO found that, although FWS, NMFS, and other federal agencies had implemented a majority of recommendations to strengthen ESA implementation contained in 10 GAO reports released during the previous 10 years, almost one-third of these recommendations had not been implemented.²⁹ For example:

²⁶ Michael Hoffman et al., “The Impact of Conservation on the Status of the World’s Vertebrates,” *Science*, v. 330 (December 10, 2010): 1503-1509.

²⁷ U.S. Government Accountability Office, *Endangered Species: Fish and Wildlife Service Generally Focuses Recovery Funding on High-Priority Species, but Needs to Periodically Assess Its Funding Decisions*, GAO-05-211 (April 6, 2005). Available at <http://www.gao.gov/new.items/d05211.pdf>.

²⁸ U.S. Government Accountability Office, *Endangered Species: Many Factors Affect the Length of Time to Recover Select Species*, GAO-06-730 (Washington, DC: GPO, September 8, 2006). In this report, GAO acknowledged that results from nonprobability (i.e., non-random) samples cannot be used to make inferences about a population (i.e., all ESA-listed species). However, in the view of GAO, review of the selected species provides valuable, case-level insights into their progress toward recovery and the role that recovery plans have played in that progress.

²⁹ U.S. Government Accountability Office, *Endangered Species Act: Many GAO Recommendations Have Been Implemented, But Some Issues Remain Unresolved*, GAO-09-225R (December 19, 2008). Available at <http://www.gao.gov/new.items/d09225r.pdf>.

- FWS had not clarified the role of critical habitat and how and when it should be designated,³⁰
- FWS had not periodically assessed expenditures on species in relation to their relative priority; and
- FWS and NMFS were not tracking the amount of time spent by federal agencies preparing for consultation before the process officially began.

In August 2011, NMFS released its *Biennial Report to the U.S. Congress on the Recovery Program for Threatened and Endangered Species*, summarizing efforts to recover the 64 domestic species under NMFS's jurisdiction from October 1, 2008, to September 30, 2010.³¹ The report provides summary tables on recovery efforts for all species under NMFS's jurisdiction, plus selected highlights for several species.

In May 2012, the Center for Biological Diversity released a report focusing on the recovery rates of 110 species, concluding that 90% of species protected by ESA are recovering at the rates predicted in agency recovery plans.³²

“Sound Science” and ESA

ESA requires that determinations of a species' status be made “solely on the basis of the best scientific and commercial data available.”³³ In several situations, legal, economic, and social disputes have resulted from actions under ESA. Examples of these controversies include the Florida panther, Klamath River Basin suckers and coho salmon, gray wolf, and the proposed listing of sage grouse.³⁴ Critics in some of these disputes suggest that the science supporting an ESA action has been insufficiently rigorous or mishandled by the agencies. For example, in July 2012, the Center for Biological Diversity published a study concluding that peer reviews of ESA critical habitat designations may not be adequately considered by federal agencies.³⁵

Many rare and endangered species are little studied because they are hard to find and it is difficult to locate enough of them to study. There may be little information on many species facing extinction, and only limited personnel or funds available to conduct studies on many of the less charismatic species, or those of little known economic import. Some question what should be done in such instances. In response, some suggest that considerations other than species conservation should prevail; others seek to change the current posture of the law by changing the role of science. These considerations are complicated by the cost and time required to acquire more complete data, particularly in connection with many lesser-known species.

Courts, in considering the “best data available” language, have held that an agency is not obliged to conduct studies to obtain missing data,³⁶ but cannot ignore available biological information,³⁷

³⁰ On August 28, 2013, FWS and NMFS published a final rule intended to provide an earlier assessment of economic impacts in the designation of new critical habitat (CH) (78 *Fed. Reg.* 53058-53076).

³¹ This report is available at <http://www.nmfs.noaa.gov/pr/laws/esa/biennial.htm>.

³² Report available at http://www.eenews.net/assets/2012/05/17/document_gw_05.pdf.

³³ 16 U.S.C. §1533(b)(1)(A).

³⁴ See CRS Report RL32992, *The Endangered Species Act and “Sound Science”*, by (name redacted)

³⁵ Article available at http://www.biologicaldiversity.org/programs/biodiversity/endangered_species_act/pdfs/bio201262712_Forum_Greenwald.pdf. The analysis suggested that peer reviewers recommending that critical habitat designations increase in size were less likely to be adopted than those recommending decreases, and that no adequate arbiter was available to ensure that reviews were considered.

³⁶ *Southwest Center for Biological Diversity v. Babbitt*, 215 F. 3d 58 (D.C. Cir. 2000).

especially if the ignored information is the most current.³⁸ Nor may an agency treat one species differently from other similarly situated species,³⁹ or decline to list a dwindling species and wait until it is on the brink of extinction in relying on possible but uncertain future actions of an agency.⁴⁰ “Best scientific and commercial data available” is not a standard of absolute certainty, reflecting Congress’s intent that FWS take conservation measures before a species is conclusively headed for extinction.⁴¹ If FWS does not base its listings on speculation or surmise, or disregard superior data, the imperfections of the studies upon which it relies do not undermine those studies as the best scientific data available—“the Service must utilize the best scientific ... data available, not the best scientific data possible.”⁴²

Judicial review can also help ensure that agency decisions and their use of scientific data are not arbitrary or capricious and that regulations are rationally related to the problems causing the decline of a species, especially when other interests are adversely affected.⁴³ In *Arizona Cattle Growers Association v. United States Fish and Wildlife Service*,⁴⁴ the court stated that the evidentiary bar FWS must clear is very low, but it must at least clear it. In the context of issuing incidental take permits under Section 10(a), this ruling means the agency must demonstrate that a species is or could be in an area before regulating it, and must establish the causal connection between the land use being regulated and harm to the species in question. Mere speculation as to the potential for harm is not sufficient. An agency must consider the relevant facts and articulate a rational connection between these facts and the choices made.⁴⁵

Endangered Species and Climate Change

In another version of the debate over science and ESA, the focus is less on the use of science in ESA decision-making, per se, and more on the use of the act to force decisions on a scientific issue. Specifically, some have argued that the ESA might be a suitable tool to restrict greenhouse gas emissions. However, no published court opinion has considered this issue.

The idea is that once a species is listed, the argument could be made that sources of substantial greenhouse gas emissions, such as coal-fired power plants, cause an unlawful “take” of these species under ESA Section 9 by the effect such emissions have, via climate change, on the species’ habitat. This could force negotiation of an incidental take permit for the source, with conditions to limit greenhouse gases.

Case law, however, does not demonstrate that the ESA is used as an enforcement tool to make climate change arguments. In three cases where ESA challenges were directed at federal projects related to power plants, only one involved climate change allegations, *Palm Beach County*

(...continued)

³⁷ Connor v. Burford, 848 F. 2d 1441 (9th Cir. 1988).

³⁸ Southwest Center for Biological Diversity v. Babbitt, 926 F. Supp. 920 (D.C. Ariz. 1996).

³⁹ Id.

⁴⁰ Biodiversity Legal Foundation v. Babbitt, 943 F. Supp. 23 (D. D.C. 1996).

⁴¹ Defenders of Wildlife v. Babbitt, 958 F. Supp. 670, 679-680 (D. D.C. 1997).

⁴² Building Industry Ass’n of Superior Cal. v. Norton, 247 F. 3d 1241, 1246-1267 (D.C. Cir. 2001), cert. denied 2002 U.S. LEXIS 479.

⁴³ See Connor v. Andrus, 453 F. Supp. 1037 (W.D. Tex. 1978)) (striking down regulations totally banning duck hunting in an area to protect one listed species of duck).

⁴⁴ 273 F. 3d 1229 (9th Cir. 2001).

⁴⁵ Pacific Coast Federation of Fishermen’s Associations, Inc. v. NMFS, 265 F.3d 1028, 1034 (9th Cir. 2001).

Environmental Coalition v. Florida, and it was not clear whether those claims were premised on the ESA or on another legal basis.⁴⁶ In an Eighth Circuit case, *Sierra Club v. U.S. Army Corps of Engineers*,⁴⁷ a claim was made that emissions harmed specific species near the power plant, and did not allege global harm. A similar claim was made in *Palm Beach County*. Neither court reviewed the ESA claims, finding procedural reasons. In the third case, *United States v. Pacific Gas and Electric*, the court held that the ESA had not been violated; also, the claims of harm to species related to a power plant were not based on greenhouse gases (GHGs).⁴⁸

Despite the apparent lack of litigation premised on climate change *taking* species, some regulatory changes were made to limit lawsuits based on that cause of action. In December 2008, FWS changed the regulations that dictated how the Service considered impacts of federal projects on listed species.⁴⁹ Those regulations were effective only from January 15, 2008, to May 5, 2008, after Congress acted to halt them in P.L. 111-8.⁵⁰ During that period of regulatory change, definitions related to the effects of an action were modified to “reinforce the Services’ current view that there is no requirement to consult on [greenhouse gas] emissions’ contribution to global warming and its associated impacts on listed species.”⁵¹ Despite the revocation of those changes, it does not appear that the scope of effects has expanded, likely due to the fact that the regulations already limited review to those effects with a reasonable certainty to occur.⁵²

Another regulatory change of the same time period is still in place. It restricts lawsuits claiming incidental takes of polar bears to instances where the agency action occurs in the state of Alaska.⁵³ The polar bear was listed under the act primarily due to shrinking habitat caused by changing climate.⁵⁴ The polar bear regulation prevents a lawsuit that claims that a power plant in any state other than Alaska harms the polar bear by indirectly causing its ice habitat to diminish. The law that authorized revocation of the regulations discussed above, P.L. 111-8, also authorized revocation of the polar bear rule, but the Secretary of the Interior and the Secretary of Commerce did not act to revoke that rule. On December 7, 2010, FWS designated approximately 187,000 square miles offshore and onshore in Alaska as critical habitat for the species.⁵⁵

In the 113th Congress, Section 307(b) of S. 17 would amend ESA to prohibit the consideration of impacts from greenhouse gases in implementation of ESA.

⁴⁶ *Palm Beach County Environmental Coalition v. Florida*, 651 F. Supp. 2d 1328 (S.D. Fla. 2009). Plaintiffs also had alleged violations of the Clean Air Act, National Environmental Policy Act, and the Clean Water Act.

⁴⁷ 645 F.3d 978 (8th Cir. 2011).

⁴⁸ 776 F. Supp. 2d 1007 (N.D. Cal. 2011).

⁴⁹ 73 *Federal Register* 76272 (December 16, 2008) (effective January 15, 2009).

⁵⁰ 74 *Federal Register* 20421 (May 8, 2009) (“With this final rule, the Department of the Interior and the Department of Commerce amend regulations governing interagency cooperation under [the ESA]. In accordance with the statutory authority set forth in the 2009 Omnibus Appropriations Act (P.L. 111-8), this rule implements the regulations that were in effect immediately before the effective date of the regulation issued on December 16, 2008”).

⁵¹ 73 *Federal Register* 47872.

⁵² 50 C.F.R. §402.02.

⁵³ 50 C.F.R. §17.40(q)(4). See also CRS Report RL33941, *Polar Bears: Listing Under the Endangered Species Act*, by (name redacted), (name redacted), and (name redacted) .

⁵⁴ 73 *Federal Register* 28212 (May 5, 2008).

⁵⁵ 75 *Federal Register* 76085.

Regional Resource Conflicts

As increasing human populations put pressures on wildlands and natural resources, efforts to conserve species and their habitats may highlight underlying resource crises and economic conflicts. Public values and affected economic interests may be complex and sometimes at odds. The situations described below are examples of regional issues that have been the subject of recent congressional oversight and legislative interest. There are many more regional resource issues that relate to ESA and are of congressional interest.

Klamath River Basin⁵⁶

Controversy first arose in 2001 when the Bureau of Reclamation (Department of the Interior) announced it would not release water from part of its Klamath irrigation project to approximately 200,000 acres of farm and pasture lands within the roughly 235,000-acre project service area. The operational change sought to make more water available for three fish species under ESA protection—two endangered sucker species, and a threatened coho salmon population. The Klamath Project straddles the Oregon/California border and has been the site of increasingly complex water management conflicts involving several tribes, fishermen, farmers, environmentalists, and recreationists. Upstream farmers point to their contractual rights to water from the Klamath Project and to hardships if water is cut off. Others assert that the downstream salmon fishery is more valuable and that farmers could be provided temporary economic assistance, while salmon extinction would be permanent. Still others assert that there are ways to serve all interests, or that the science underlying agency determinations is simply wrong.

Specifically at issue is how to operate the Bureau's project facilities to meet irrigation contract obligations without jeopardizing the three listed fish. Ten-year and annual operation plans, and associated biological assessments (by the Bureau) and Biological Opinions (BiOps, by FWS and NMFS), have been variously criticized and defended.

Recent agreements propose to resolve conflicts in the Klamath Basin and are supported by federal and non-federal entities. In 2010, the Secretary of the Interior and the governors of Oregon and California announced a Klamath Basin Restoration Agreement (KBRA), which was negotiated and signed by more than 40 Klamath River stakeholders. It proposes to address conflicting water management objectives and outstanding water rights claims in the Basin. A second agreement with PacifiCorp (a private company), the Klamath Hydropower Settlement Agreement (KHSA), may result in the removal of four dams on the Klamath River that block salmon and steelhead from historic spawning areas. On September 21, 2012, the Secretary of the Interior announced the completion of scientific and technical studies concerning the environmental and economic impacts of removing four Klamath River hydroelectric dams.⁵⁷

Another agreement, the Upper Klamath Basin Agreement in Principle, was announced in December 2013 and includes provisions that would resolve outstanding disputes not settled in the KBRA and result in some opponents of the KBRA being included under that agreement. Implementation of the KBRA requires congressional authorization and subsequent appropriations. While dam removal under the KHSA is expected to be funded by the states of Oregon and California (i.e., it will not require federal appropriations), congressional authorization is required for the Secretary of the Interior to make a final decision on whether dam removal is justified and can move forward.

⁵⁶ This section was prepared by (name redacted), Specialist in Natural Resources Policy ([redacted]@crs.loc.gov...).

⁵⁷ See <http://www.doi.gov/news/pressreleases/Salazar-Announces-Release-of-Klamath-Dam-Removal-Studies.cfm>.

Legislation authorizing the agreements was introduced but not acted upon in the 112th Congress. Since that time, estimated costs for implementing the Klamath agreements has been revised downward, among other developments. At issue for the 113th Congress is whether to provide legislative approval and support for the Klamath agreements. Congress held oversight hearings on the agreements in 2013, but to date no authorizing legislation has been proposed.

Gray Wolf

Until the last couple of centuries, wolves were found throughout North America. For wolves, which are (or were) found in temperate and polar areas throughout the Northern Hemisphere, some observers would argue that there were as many as 24 subspecies in North America.⁵⁸ In contrast, until recently, FWS divided all wolves in North America into two species: red wolves (*Canis rufus*) and gray wolves (*Canis lupus*), with the latter having a subspecies, the Mexican wolf (*Canis lupus baileyi*). Because these names have legal consequences, it is important to note that the taxonomic debate is not whether the various groups of wolves around North America are *truly* different species. The wide ranging habits of wolves and the intermixing of the genes in one pack with those of another, as packs are formed and die out, mean that hard distinctions cannot be made. Rather, from a taxonomic point of view, the question is whether wolves in one area are different *enough* to be called different species or subspecies, all the while recognizing that intermediate wolves will be found naturally.

Regardless of scientific names, wolves had all but disappeared from the contiguous United States when Congress enacted the Endangered Species Act of 1973 (ESA), and FWS listed wolves as an endangered species in most of the lower 48 states. Since then, the gray wolf (*Canis lupus*) has held every status of protection under the ESA, as regulatory efforts have shifted from conserving the wolf (which eventually led to reintroducing wolves into three areas in the American West in the 1990s),⁵⁹ to reducing wolf protections where its population has surged. Litigation has followed each regulatory change. ESA protection for distinct population segments (DPSs) of wolves has changed back and forth since the first DPSs—Western and Eastern—were proposed in 2003.⁶⁰ The result is an extremely complex regulatory and legal saga, in which each effort by FWS to delist the wolf or designate a DPS has been rejected by a court, until Congress enacted legislation to exempt certain de-listing regulations from judicial review. This sequence of events is described here.

In 2003, FWS determined that wolves in the western and eastern United States were distinct from other wolves and designated them as distinct population segments (DPSs). At the same time, FWS determined that neither the Western nor the Eastern DPS needed the protection of the ESA any longer and so they were delisted. The two DPS designations and delistings were nullified by courts. In 2007, FWS designated a Western Great Lakes DPS and simultaneously delisted it. And in early 2008, FWS also designated and delisted the Northern Rocky Mountains DPS. However, courts found both delistings flawed and vacated both rulemakings.

In December 2008, as ordered by the courts, FWS returned the wolves in the Western Great Lakes and parts of the Northern Rocky Mountains areas to their former protected status,

⁵⁸ See discussion, citing various authors, in L. David Mech, *The Wolf: The Ecology and Behavior of an Endangered Species*, pp. 29-31 (Garden City, NY: Natural History Press 1970).

⁵⁹ These areas were the Arizona-New Mexico border, the Yellowstone ecosystem, and the Idaho-Montana area.

⁶⁰ For more information, see CRS Report RL34238, *Gray Wolves Under the Endangered Species Act (ESA): Distinct Population Segments and Experimental Populations*, by (name redacted)

eliminating the DPS designations.⁶¹ In April 2009 FWS published notices designating DPSs in the Western Great Lakes and the Northern Rockies and delisting both populations, except in Wyoming. FWS was sued for the Western Great Lakes delisting and settled the case, returning the population to its previous status (threatened or endangered, depending on location). In August 2010, a court held that the Northern Rockies delisting violated the ESA, and directed that the delisting be declared invalid.⁶² The Northern Rockies wolves were returned to their experimental population status, meaning they were treated as threatened in most circumstances.

Meanwhile, some proposed that the species be delisted legislatively, but critics argued that allowing Congress to remove or add protections for particular species would set a dangerous precedent.⁶³ However, Congress negated the effect of the August court decision when it approved the following language in P.L. 112-10 (H.R. 1473):

Sec. 1713. Before the end of the 60-day period beginning on the date of enactment of this Act, the Secretary of the Interior shall reissue the final rule published on April 2, 2009 (74 Fed. Reg. 15123 et seq.) without regard to any other provision of statute or regulation that applies to issuance of such rule. Such reissuance (including this section) shall not be subject to judicial review and shall not abrogate or otherwise have any effect on the order and judgment issued by the United States District Court for the District of Wyoming in Case Numbers 09-CV-118J and 09-CV-138J on November 18, 2010.

Besides marking the first legislative delisting under ESA, the effect was to return to the April 2009 rule, described above, establishing the DPS in the Northern Rockies and delisting those wolves, except for those in Wyoming. The gray wolf became the 49th species to be delisted under ESA, although it was delisted only in the states of Montana and Idaho plus eastern Washington, eastern Oregon, and north-central Utah. (It remains listed as either endangered or threatened in all of the other lower 48 states.) Of the previous 48 species delisted, none had been delisted due to specific legislative action.⁶⁴ While there may be attempts to point to the language of P.L. 112-10 as a precedent for delisting other species, two facts are unlikely to find parallels in other species controversies: (1) FWS had previously attempted to delist the species, meaning FWS believed the science supported delisting; and (2) the species had met and exceeded the numeric goals for delisting in the species' recovery plan, although the genetic connectivity was disputed. The language of P.L. 112-10 (Section 1713) blocks judicial review of reissuance of the rule, and it appears to leave open the option for a subsequent proposal to re-list the species. On September 10, 2012, FWS published a rule delisting wolves in Wyoming, effective September 30, 2012.⁶⁵

In May 2011, FWS again proposed to delist the wolves in the Western Great Lakes region. This DPS was delisted in December 2011.⁶⁶

In addition, in the May 2011 notice it also proposed designating any wolves in most of the eastern states and Canadian provinces as a third species of wolf, to be called the "eastern wolf" (*Canis lycaon*), in addition to the gray and red wolf species.⁶⁷ Wolves in the east had been considered

⁶¹ The same rulemaking returned wolves in southern Montana, southern Idaho, and all of Wyoming to the status of "nonessential experimental populations"—their status before the DPS efforts.

⁶² *Defenders of Wildlife v. Salazar*, 729 F. Supp. 2d 1207 (D. Mont. 2010).

⁶³ See http://www.ucsusa.org/assets/documents/scientific_integrity/Experts-Letter-to-Senate-on-Endangered-Species-Act-2011.pdf.

⁶⁴ See http://ecos.fws.gov/tess_public/pub/delistingReport.jsp, which provides background on the 48 species delisted to date.

⁶⁵ 77 *Federal Register* 55529.

⁶⁶ 76 Fed. Reg. 81666 (Dec. 28, 2011).

⁶⁷ 76 Fed. Reg. 26086 (May 5, 2011).

gray wolves (*Canis lupus*). Many scientists agree that they are different, but only enough to constitute a different subspecies.⁶⁸ FWS adopted the view that they are a different species altogether, and stated:

After reviewing the latest available scientific and taxonomic information, the Service now recognizes the presence of two species of wolves in the Western Great Lakes: the gray wolf (*Canis lupus*), the wolf species currently listed under the ESA, and the eastern wolf (*Canis lycaon*), with a historical range that includes portions of eastern Canada and the northeastern United States. Recent wolf genetic studies indicate that what was formerly thought to be a subspecies of gray wolf (*Canis lupus lycaon*) is actually a distinct species (*Canis lycaon*). To establish the status of this newly recognized species, the Service is initiating a review of *Canis lycaon* throughout its range in the United States and Canada.⁶⁹

This view of wolf taxonomy is controversial, and some newer research does not support this proposal.⁷⁰ If accepted, this proposal would have the effect of delisting any wolves remaining in eastern states: *Canis lupus* is listed, but if these eastern wolves are not considered to be members of this species, then this taxonomic change effectively delists them, and would require them to go through a new listing process to provide ESA protections.

In June 2013, FWS proposed delisting all gray wolves in the lower 48 states and changing the status of Mexican wolves to endangered.⁷¹ The proposal was based on (a) their revised interpretation of gray wolf habitat; (b) their proposed taxonomic revision supporting a distinct eastern wolf species (whose acceptance alone would be sufficient to delist any wolves said to be in that new species); and (c) the notion that wolves were not likely to spread beyond their present ranges, due to unsuitable habitats.

As with the many controversies surrounding wolf conservation, these proposals may also be subject to litigation and come to congressional attention.

Delta Smelt⁷²

Delta smelt (*Hypomesus transpacificus*) are small, slender-bodied fishes found only in the San Francisco Bay and Sacramento-San Joaquin Rivers Delta in California (Bay-Delta), where they were once abundant.⁷³ The species had declined an estimated 90% over a 20-year period before it was listed as threatened under ESA in 1993⁷⁴ and, in recent years, its abundance has declined to the lowest ever observed. The decline has been attributed to a combination of several factors, including large exports of freshwater from the Bay-Delta that results in entrainment (i.e., entrapment) in water export pumps and affects size, location, and quality of habitat. Other factors contributing to the species' decline include competition and predation from other fish species

⁶⁸ For example, see the Integrated Taxonomic Information system (<http://www.itis.gov/>), which considers *lycaon* to be a subspecies. FWS and USGS are members of this international academic and governmental scientific consortium.

⁶⁹ See press release at http://us.vocuspr.com/Newsroom/Query.aspx?SiteName=fws&Entity=PRAsset&SF_PRAsset_PRAssetID_EQ=115700&XSL=PressRelease&Cache=True.

⁷⁰ See vonHoldt, B.M., et al. 2011. "A genome-wide perspective on the evolutionary history of enigmatic wolf-like canids." *Genome Research* 1-33.

⁷¹ 78 Fed. Reg. 35663 (June 13, 2013).

⁷² This section was prepared by (name redacted), Specialist in Natural Resources Policy[[redacted]@crs.loc.gov...).

⁷³ For background on legal issues, see out-of-print CRS Report R41876, *Biological Opinions for the Sacramento-San Joaquin Delta: A Case Law Summary*, available from the author.

⁷⁴ U.S. Fish and Wildlife Service, "Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the Delta Smelt," 58, No. 42 *Federal Register* 12854, March 5, 1993.

(including non-indigenous or “exotic” species such as striped bass), warmer water temperatures, toxic contaminants, and changes in food supply.⁷⁵ The contribution of each factor in causing the species decline is controversial. Some contend that all causes contribute to the observed decline;⁷⁶ however, only some of the factors are under direct federal control.

The delta smelt decline has significant consequences for the operation of the federal Central Valley Project (CVP) and the State Water Project (SWP), which supply water to much of Central and Southern California. Because of the federal nexus, changes in how the federal pumps are operated necessitated consultation with fish and wildlife agencies under ESA (i.e., consultation was triggered because a proposed change in operation in 2004 was a federal action). Alternative pumping actions imposed by fish and wildlife agencies following consultation have contributed to less pumping and less water for many users south of the Delta. The reduction in water deliveries has been very controversial, particularly in drought and below normal water years.

To address the impact of pumping changes on delta smelt, an ESA Section 7 consultation between FWS and the Bureau of Reclamation was initiated in 2004.⁷⁷ FWS initially issued a no-jeopardy BiOp with regard to impacts on delta smelt by the operations of the CVP and SWP in 2004, and re-issued the BiOp in 2005 to address potential critical habitat issues of the delta smelt. In May 2007, the FWS BiOp was found not to comply with ESA with regard to delta smelt.⁷⁸ The Bureau of Reclamation and FWS reinitiated consultation based on new information on the delta smelt in 2007. While the consultation process was underway, the Bureau of Reclamation implemented interim protective measures required by a court order that was issued in December 2007.⁷⁹

In May 2008, the Bureau of Reclamation issued a revised biological assessment on the CVP Operations Criteria and Plan (OCAP) and requested consultation.⁸⁰ A revised FWS BiOp was issued December 15, 2008.⁸¹ FWS determined that the continued operation of water projects in the Bay-Delta, as described in the 2008 OCAP biological assessment, was likely to jeopardize the continued existence of the delta smelt and adversely modify its critical habitat. Along with the revised BiOp, FWS outlined reasonable and prudent alternatives (RPAs) intended to protect each life-stage and critical habitat of the delta smelt, which resulted in reduction in water deliveries for many water users south of the Delta. These RPAs have been the subject of further litigation and much controversy. With more abundant water in the winter of 2011, the parties were able to agree on water flow levels through June 30, 2011, perhaps marking the first spring without litigation over water flow since the 2008 FWS BiOp was issued. However, dry water conditions in 2013

⁷⁵ Testimony of Bob Johnson, Commissioner of the Bureau of Reclamation, at House Committee on Natural Resources, Subcommittee on Water and Power, hearing on “The Immediate Federal and State Role in Addressing Uncertain Water Deliveries for California and the Impacts on California Communities,” 110th Cong., 2nd sess., January 29, 2008.

⁷⁶ In 2005, the Pelagic Organism Decline working group was created to address the decline in fish and zooplankton populations in the Bay-Delta. Subsequently, they hypothesized that pelagic fish decline could be a result of three factors acting individually or together. These factors included (1) toxic contaminants, (2) exotic species, and (3) water project effects. Based on this hypothesis, the group developed a set of conceptual models to explain pelagic fish decline. Their results have so far been inconclusive and more research is planned 2008. See *Pelagic Organism Decline Progress Report: 2007 Synthesis of Results*, at http://www.fws.gov/sacramento/es/documents/POD_report_2007.pdf.

⁷⁷ In 2004, the Bureau of Reclamation, which operates the CVP, issued a biological assessment (BA) of its proposal to increase pumping as part of a revised coordinated operational plan with the SWP, known as Operations Criteria and Plan (OCAP), and initiated consultation with FWS. Consultation was also initiated with NMFS on several other anadromous species (e.g., salmon and sturgeon), which also has been challenged in court.

⁷⁸ *NRDC v. Kempthorne*, 506 F. Supp. 2d 322 (E.D. Cal. 2007).

⁷⁹ *NRDC v. Kempthorne*, 2007 U.S. Dist. LEXIS 91968 (E.D. Cal. December 14, 2007).

⁸⁰ <http://www.usbr.gov/mp/cvo/OCAP/docs/Letters.pdf>.

⁸¹ Available at http://www.fws.gov/sacramento/es/documents/SWP-CVP_OPs_BO_12-15_final_OCR.pdf.

and projected drought conditions for 2014 continue to stress the water supply system and pumping levels in the Delta. In the meantime, the litigation regarding the 2008 FWS BiOp and the FY2009 NMFS BiOp are before the Ninth Circuit Court of Appeals.

At issue during the second session of the 113th Congress may be congressional oversight of proposals to address water supply shortages due to hydrological and regulatory factors affecting delivery of water from the CVP and SWP, as well as broader efforts to address environmental and water supply challenges associated with the Bay-Delta (e.g., the Bay-Delta Conservation Plan). Section 308 of S. 17 (H.R. 1881) would prohibit the Bureau of Reclamation and California state agencies from restricting operations for the Central Valley Project pursuant to any BiOp under certain conditions. Section 1(b) of H.R. 1927 would deem ESA requirements relating to the operations of the CVP and SWP fulfilled if the 2008 FWS and 2009 NMFS BiOp RPAs are implemented and certain Delta water flows and pumping regimens are not exceeded.

Private Property and Fifth Amendment Takings⁸²

The prohibitions in Section 9 (private actions) and Section 7 (federal nexus) at times frustrate the economic desires of owners of land or other property. This has long been a central issue for ESA's detractors, who assert that restrictions under ESA routinely "take" property in the constitutional sense of the term.⁸³ Conflicts between ESA and property owners come about despite the existence of ESA mechanisms, such as incidental take permits intended to soften its impact on property owners.

Under the Fifth Amendment, property cannot be "taken" by the United States without just compensation. The Supreme Court has long tried, with limited success, to define which government actions affect private property so severely as to effect such a "taking." In briefest outline, government actions usually are deemed a taking when they cause either a permanent physical occupation of private property or, through regulation, a *total* elimination of its economic use and value. When the government regulation removes only part, but not all, of the property's use or value, a three-factor balancing test is used to determine whether a taking has occurred.⁸⁴ Although these factors remain amorphous, it is at least clear from lower court decisions that, for a taking to occur, the regulation's impact on the property generally must be severe; and with regard to the property as a whole, not just the regulated portion.

Approximately 20 court decisions have addressed takings challenges to ESA restrictions on land or other property, with only one finding a taking. These cases have involved restrictions on timber cutting, reductions in water delivery to preserve instream flows needed by listed species (a particularly active area now), restrictions on shooting animals that were responsible for loss of livestock, and prohibitions on the transport or sale of endangered species. In several of these cases, the taking claim failed because it was filed in the wrong court or was not "ripe." Where takings claims were reached by the court, they were rejected principally because the economic

⁸² This section was prepared by (name redacted), Legislative Attorney [(redacted)]@crs.loc.gov....).

⁸³ See CRS Report RL31796, *The Endangered Species Act (ESA) and Claims of Property Rights "Takings"*, by (name redacted)

⁸⁴ The three factors, announced by the Supreme Court in *Penn Central Transp. Co. v. New York City* in 1978 and reaffirmed by the Court many times since, are (1) the economic impact of the government action on the property owner; (2) the extent to which the government action interferes with the owner's reasonable investment-backed expectations; and (3) the "character" of the government action, 438 U.S. 104, 124 (1978). These are vague guideposts only; the Court stresses that every case is to be decided ad hoc.

impact was insufficient as to the property as a whole, or because of the long-standing principle that the government is not responsible for the actions of wild animals.

The one decision finding a taking involved a reduction in the water delivered to a water district below the contractually promised amount because the water was needed to maintain in-stream flows for ESA-listed fish.⁸⁵ This decision, however, has been undermined by the same judge who wrote it in a later decision.⁸⁶ A second ESA/taking case appeared on course for a plaintiff win, but was dismissed on ripeness grounds. In this case, the Federal Circuit instructed that when the government requires water subject to appropriative water rights to be physically diverted to a fish ladder (for ESA-listed fish), the diversion and resulting non-delivery to the water right holder must be analyzed under a physical rather than regulatory taking theory.⁸⁷ Under a physical taking theory, the water right holder normally would be expected to be victorious. However, on second appeal the Federal Circuit held that the water district had not shown that the water diverted to the fish ladder was of sufficient amount to interfere with the district's ability to satisfy its obligations to its customers.⁸⁸ So the case was dismissed as unripe.

In the 1990s, critics sought to amend ESA to afford compensation for a broader range of property impacts than the Constitution provides—perhaps by specifying a fixed percentage of ESA-related property value loss, above which compensation must always be paid. No such bills were enacted.

Additional Issues and Legislative Initiatives

Other miscellaneous issues have emerged for which legislation has been introduced in the 113th Congress:

- H.R. 1526 (Section 104(e)) would alter the consultation process for a timber sale program on federal lands allowing the Department of Agriculture to make its own no jeopardy determination in the ESA consultation process.
- H.R. 1965 (Section 1302) provides that certain earlier actions by the Bureau of Land Management concerning permitting for oil shale development shall be deemed to satisfy the provisions of ESA, as well as of certain other laws.
- H.R. 3533 (and its companion bill, S. 1731) would make an array of changes in ESA. They would allow governors to determine whether species may be listed within their states; allow governors to assume sole authority for listed species found only within the state's boundaries as determined by the governor; eliminate petitions to list species; require congressional approval to list species; remove species from protection five years after listing; and allow property owners to seek compensation for a broad range of impacts on fair market value due to the statute's prohibitions on taking listed species, among other changes.
- S. 17 (Section 309(d)) would prohibit any area necessary to construct or maintain the Keystone XL pipeline from being considered critical habitat under ESA.

⁸⁵ *Tulare Lake Basin Water Storage Dist. v. United States*, 49 Fed. Cl. 313 (2001).

⁸⁶ *Casitas Municipal Water Dist. v. United States*, 76 Fed. Cl. 100 (2007). Though the judge's 2007 opinion was reversed in relevant respects on appeal (543 F.3d 1276 (Fed. Cir. 2008)), the appeals court's rationale seems to leave the lower court's argument intact.

⁸⁷ *Casitas Municipal Water Dist. v. United States*, 543 F.3d 1276 (Fed. Cir. 2008).

⁸⁸ *Casitas Municipal Water Dist. v. United States*, 708 F.3d 1340 (Fed. Cir. 2013).

- S. 17 (Section 307(a)) would provide a temporary exemption from ESA restrictions on taking and adverse modification of critical habitat in a declared emergency.
- S. 19 would amend ESA to establish a procedure for state approval of consent decrees or settlement agreements in actions brought under ESA Section 11(g)(1)(C).
- S. 744 (Section 3(d)) would waive ESA and other legal requirements to ensure expeditious construction of border fences and infrastructure.

ESA Appropriations

Appropriations play an important role in the ESA debate, providing funds for listing and recovery activities as well as financing consultations that are necessary for federal projects. In addition, appropriations bills have served as vehicles for some substantive changes in ESA provisions.

Fish and Wildlife Service⁸⁹

Table 2 summarizes recent ESA and related funding for FWS. The Administration proposed that FY2014 funding for endangered species programs in FWS’s Ecological Services account increase by 7.3% above the FY2013 enacted funding. In addition, the Administration proposed an increase of 17.4% for the Cooperative Endangered Species Fund above the FY2013 levels. There are two related programs that also generally benefit endangered foreign or migratory species and these are also shown. The Administration proposed level funding for the Multinational Species Conservation Fund and for the Neotropical Migratory Bird Fund. FY2014 appropriations for these programs are pending in congressional deliberations concerning an omnibus spending bill. For more information on the status of Interior appropriations, see CRS Report R43142, *Interior, Environment, and Related Agencies: FY2013 and FY2014 Appropriations*.

Table 2. Funding for FWS Endangered Species and Related Programs, FY2011-FY2014

(\$ in thousands)

	FY2011 Enacted	FY2012 Enacted	FY2013 Enacted	FY2014 Request
Candidate Conservation	11,448	11,337	11,247	11,530
Listing	20,902	20,869	20,667	22,622
Consultation	61,877	60,943	60,672	64,751
Recovery	81,219	82,806	80,181	86,543
<i>Subtotal</i>	<i>175,446</i>	<i>175,955</i>	<i>172,767</i>	<i>185,446</i>
Cooperative Endangered Species Fund	59,880	47,681	47,681	56,000

⁸⁹ For an overview of FWS appropriations, see CRS Report R42466, *Fish and Wildlife Service: FY2013 Appropriations and Policy*, by (name redacted)

	FY2011 Enacted	FY2012 Enacted	FY2013 Enacted	FY2014 Request
Multinational Species Fund ^a	9,980	9,466	9,787	9,787
Neotropical Bird Fund ^b	3,992	3,786	3,786	3,786
Total	249,298	236,888	234,021	255,019

Sources: Annual budget justifications. FY2011-FY2013 enacted from House Committee reports.

- a. Appropriations for species conservation authorized by the African Elephant Conservation Act (16 U.S.C. §4201), Rhinoceros and Tiger Conservation Fund (16 U.S.C. §5301), Asian Elephant Fund (16 U.S.C. §4261), Great Ape Conservation Fund (16 U.S.C. §1603), and Marine Turtle Conservation Act (16 U.S.C. §6601).
- b. Appropriations authorized by the Neotropical Migratory Bird Conservation Act (16 U.S.C. §§6101-6109).

National Marine Fisheries Service⁹⁰

For NMFS, funding for ESA programs is included under “protected species research and management”, which also includes funding authorized under the Marine Mammal Protection Act (see **Table 3**).⁹¹ The Administration proposed that FY2014 funding for NMFS’s protected species programs in NOAA’s Operations, Research, and Facilities (OR&F) account increase by about \$20.4 million (12.4%) above the FY2013 National Oceanic and Atmospheric Administration operating plan. On July 17, 2013, the House Committee on Appropriations approved H.R. 2787 (H.Rept. 113-171), recommending that FY2014 funding for Protected Species be increased by \$1.5 million (0.9%) from the FY2013 spend plan and decreased by \$19.0 million (-10.2%) from the funding level proposed by the Administration. On July 18, 2013, the Senate Committee on Appropriations approved S. 1329 (S.Rept. 113-78), recommending that FY2014 funding for Protected Species be increased by \$18.2 million (11.0%) above the FY2013 spend plan, decreased by \$2.2 million (-1.2%) from the funding level proposed by the Administration, and increased by \$16.7 million (10.0%) above the level recommended by the House Committee on Appropriations. On October 17, 2013, the Continuing Appropriations Act, 2014 (P.L. 113-46) was signed into law. The act continues FY2013 appropriations for Commerce, Justice, and Science (CJS) agencies and bureaus until January 15, 2014, or whenever the FY2014 CJS appropriations bill is signed into law.

Table 3. Funding for NMFS Protected Species Programs, FY2011-FY2014
(\$ in thousands)

	FY2011 Enacted	FY2012 Enacted	FY2013 Final Op. Plan	FY2014 Request	FY2014 Hse Rpt.	FY2014 Sen Rpt.
Protected Species	188,101	176,451	165,521	185,969	167,000	183,758

Sources: Annual budget justifications, House and Senate committee and conference reports.

⁹⁰ This section was prepared by (name redacted), Analyst in Natural Resources Policy ([redacted]@crs.loc.gov,7.) .

⁹¹ The National Oceanic and Atmospheric Administration “Blue Book” is available at http://www.corporateservices.noaa.gov/~nbo/14bluebook_highlights.html.

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