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 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, old-growth timber in national forests, 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. The 113th Congress may face specific resource conflicts involving threatened and endangered species, including managing water supplies and ecosystem restoration in San Francisco Bay and the Sacramento and San Joaquin Rivers Delta in California (i.e., Bay-Delta) and managing water supplies in the Klamath Basin. 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, and salmon).

Major issues for the 113th Congress likely 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, or 112th Congresses to reauthorize 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. Congress faces the issue of how to balance these 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 little legislation related to ESA was enacted.[3]

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 as threatened or endangered. Consequently, some populations of Chinook, coho, chum, and

[1] For example, see CRS Report RL34326, *Apalachicola-Chattahoochee-Flint (ACF) Drought: Federal Water Management Issues*, coordinated by Nicole T. Carter.

[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 Eugene H. Buck et al.

[3] For a review of action by the 110th Congress on ESA, see CRS Report RL33779, *The Endangered Species Act (ESA) in the 110th Congress: Conflicting Values and Difficult Choices*, by Eugene H. Buck et al.; for a review of action by the 111th Congress on ESA, see CRS Report R40185, *The Endangered Species Act (ESA) in the 111th Congress: Conflicting Values and Difficult Choices*, by Eugene H. Buck et al.; for a review of action by the 112th Congress on ESA, see CRS Report R41608, *The Endangered Species Act (ESA) in the 112th Congress: Conflicting Values and Difficult Choices*, by Eugene H. Buck et al.

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

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 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 Biological Resources Division conducts research on species for which FWS has management authority; NMFS conducts research on the species for which it is responsible.

As of January 2, 2013, a total of 1,234 species of animals and 820 species of plants were listed as either endangered or threatened under the ESA, of which the majority (619 species of animals and 817 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 1,436 U.S. species, 1,143 (about 80%) are covered in active recovery plans.[9] In the most recent data available, FY2011 federal and state expenditures on endangered and threatened species totaled about $1.59 billion, of which about $1.53 billion was reported by federal agencies and about $58 million was reported by the states.[10] The top 10 species with the highest total FY2011 expenditures (excluding land acquisition costs) included 7 subpopulations of steelhead and Pacific salmon ($338 million altogether), pallid sturgeon ($42 million), bull trout ($37 million), and red-cockaded woodpecker ($27 million).

[5] A more detailed discussion of the major provisions of ESA is provided in CRS Report RL31654, *The Endangered Species Act: A Primer*, by M. Lynne Corn, Kristina Alexander, and Eugene H. Buck.

[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/.

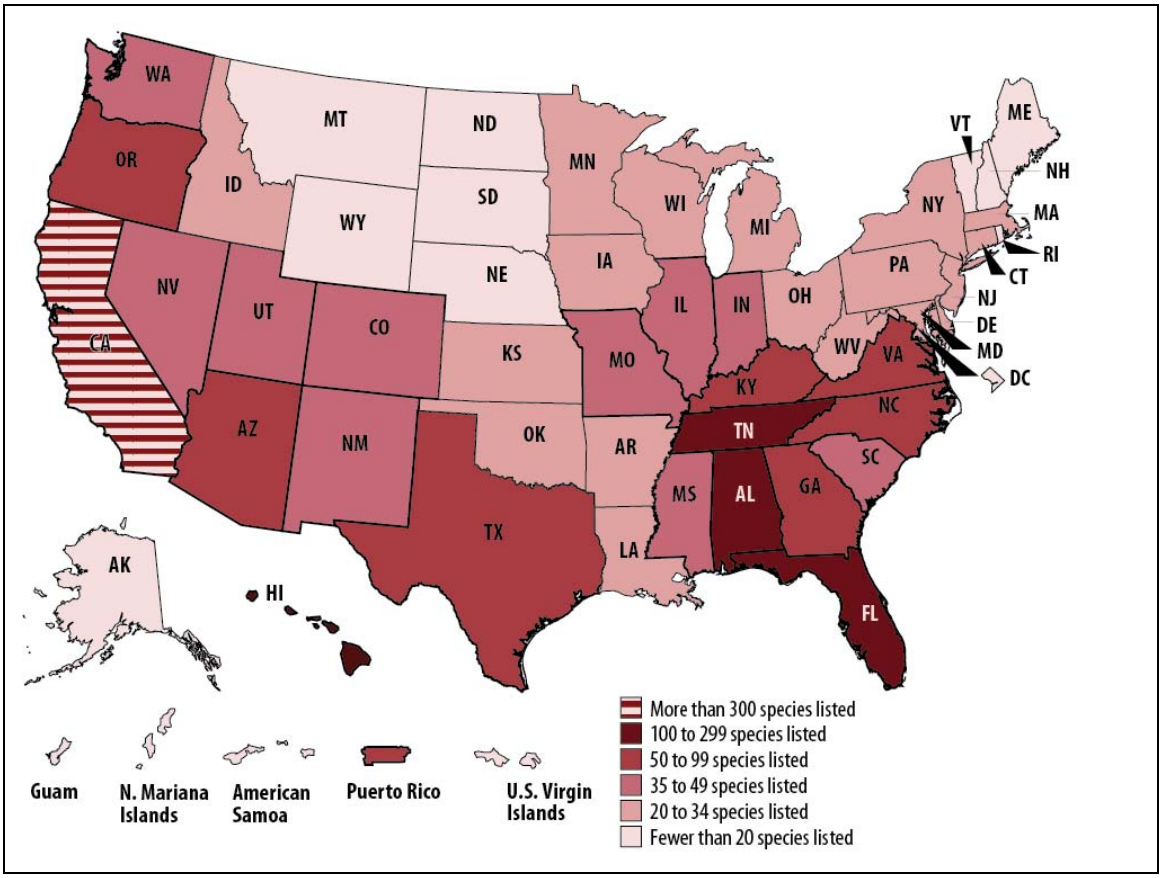
[7] For comparison, the International Union for Conservation of Nature and Natural Resources (IUCN; World Conservation Union) announced in 2011 that it considered 19,570 species to be threatened with extinction—an increase of 1,219 species since 2010. In addition, the IUCN identified 825 species that had become extinct or were extinct in the wild (i.e., found only in captivity or in cultivation), including 239 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 habitat. 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 2011*; available at http://www.fws.gov/endangered/esa-library/pdf/2011.EXP.FINAL.pdf.

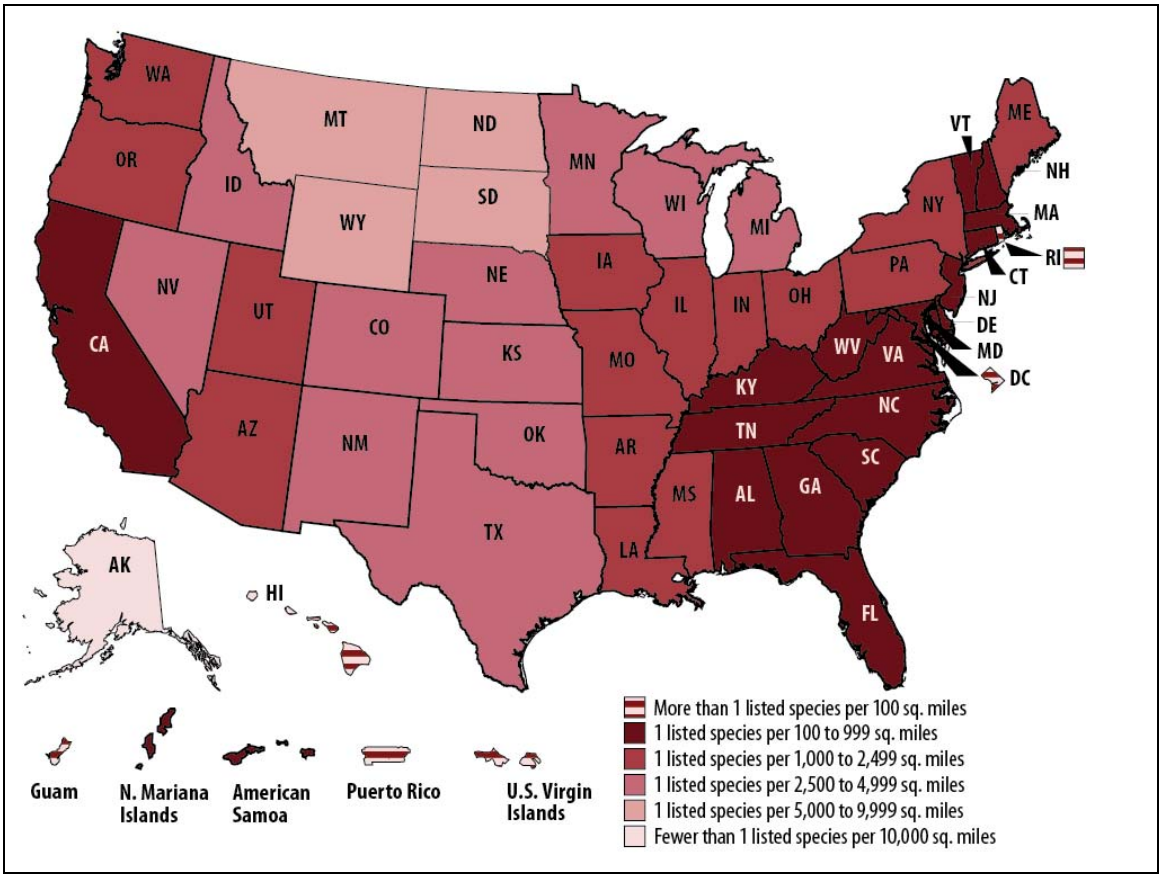
Figure 1. Number of Listed Species, by State and Territory



Source: Created by CRS from data on the numbers of listed species available at http://ecos.fws.gov/tess_public/pub/stateListing.jsp, March 30, 2012.

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; declining species often function like the proverbial canary in the coal mine, by flagging larger issues of resource scarcity and altered ecosystems. Past resource debates in which ESA-listed species were part of larger issues include 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 the 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, March 30, 2012; 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.

Implementation of 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 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.[11] CITES parallels ESA by dividing its listed species into groups according to the estimated risk of extinction, but uses three major categories (called appendices), rather than two.[12] In contrast to ESA, CITES classifies species based solely on the risk that trade poses to their survival. Under ESA, violations of CITES are also violations of U.S. law if

[11] For additional background, see CRS Report R42447, *The Endangered Species Act (ESA) as Implementing Legislation for International Treaties*, by Kristina Alexander.

[12] For additional information on CITES, see http://www.cites.org/.

committed within U.S. jurisdiction (16 U.S.C. §1538). ESA also regulates import and export of controlled products and provides some exceptions.[13]

Both ESA and CITES address illegal trade in wildlife. International illegal wildlife trade is estimated to be worth more than $10 billion annually and has been associated with the decline of species, spread of disease, and proliferation of invasive species, among other things.[14]

In addition, FWS's Multinational Species Conservation Fund (MSCF) benefits tigers, the six species of rhinoceroses, Asian and African elephants, marine turtles, and great apes (gorillas, chimpanzees, bonobos, orangutans, and the various species of gibbons). This fund supports conservation efforts benefitting these species, often in conjunction with efforts under CITES.[15]

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 are likely to receive attention in the 113th Congress.

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.[16] In the 39 years since ESA was enacted, 56 U.S. and foreign species or distinct population segments thereof have been delisted.[17] The reasons cited by FWS are (a) recovery (28 species); (b) extinction (10 species; however, some may have been extinct when listed); and (c) original data in error (18 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, thought by many to be extinct, was thought to have been rediscovered in a remote area of Arkansas a few years ago. Rare species are, by definition, hard to find.

Some have asserted that ESA is a failure since only 28 species have been delisted due to recovery; on the other hand, only 10 species have been delisted because of extinction. Others note

[13] 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 Pervaze A. Sheikh and M. Lynne Corn.

[14] For more information on illegal wildlife trade, see CRS Report RL34395, *International Illegal Trade in Wildlife: Threats and U.S. Policy*, by Liana Sun Wyler and Pervaze A. Sheikh.

[15] For more information on the MSCF, see CRS Report RS21157, *International Species Conservation Funds*, by Pervaze A. Sheikh and M. Lynne Corn.

[16] 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.

[17] These figures were updated on January 3, 2013; for the latest information, see http://ecos.fws.gov/tess_public/DelistingReport.do.

that full recoveries are relatively few because the two principal causes of extinction—habitat loss and invasive non-native species—continue to increase. In addition, "only those species whose situations are known to be the most desperate will receive priority,"[18] thereby making 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.[19] Under this standard, ESA could be considered a success, since a large number of listed species (41%, according to one study)[20] 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.[21] 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 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.[22]

Table 1. 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 GAO found that although FWS spends 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.[23] GAO found that FWS does not have a process to assess

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

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

[20] 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.

[21] See CRS Report 98-32, *Endangered Species List Revisions: A Summary of Delisting and Downlisting*, by Robert J. Noecker.

[22] Michael Hoffman et al., "The Impact of Conservation on the Status of the World's Vertebrates," *Science*, v. 330 (December 10, 2010): 1503-1509.

[23] 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.

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. In 2006, GAO examined federal efforts to recover 31 selected species.[24] 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.[25] For example:

- FWS had not clarified the role of critical habitat and how and when it should be designated;[26]
- 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.[27]

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.[28]

"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."[29] In several recent 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 Sonoran

[24] 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.

[25] 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.

[26] On August 24, 2012, FWS and NMFS published a proposed rule that would simplify the designation of new critical habitat (CH) by offering an earlier assessment of economic impacts (77 *Fed. Reg.* 50503-50510).

[27] This report is available at http://www.nmfs.noaa.gov/pr/laws/esa/biennial.htm.

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

[29] 16 U.S.C. §1533(b)(1)(A).

Desert bald eagles.[30] Critics in some of these disputes suggest that the science supporting ESA action has been insufficiently rigorous or mishandled by the agencies.

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,[31] but cannot ignore available biological information,[32] especially if the ignored information is the most current.[33] Nor may an agency treat one species differently from other similarly situated species,[34] 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.[35] "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.[36] 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."[37]

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.[38] In *Arizona Cattle Growers Association v. United States Fish and Wildlife Service*,[39] 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.[40]

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[30] See CRS Report RL32992, *The Endangered Species Act and "Sound Science"*, by M. Lynne Corn, Kristina Alexander, and Eugene H. Buck.

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

[32] *Connor v. Burford*, 848 F. 2d 1441 (9th Cir. 1988).

[33] *Southwest Center for Biological Diversity v. Babbitt*, 926 F. Supp. 920 (D.C. Ariz. 1996).

[34] Id.

[35] *Biodiversity Legal Foundation v. Babbitt*, 943 F. Supp. 23 (D. D.C. 1996).

[36] *Defenders of Wildlife v. Babbitt*, 958 F. Supp. 670, 679-680 (D. D.C. 1997).

[37] *Building Industry Ass'n of Sup. Cal. v. Norton*, 247 F. 3d 1241, 1246-1267 (D.C. Cir. 2001), cert. denied 2002 U.S. LEXIS 479.

[38] 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).

[39] 273 F. 3d 1229 (9th Cir. 2001).

[40] *Pacific Coast Federation of Fishermen's Associations, Inc. v. NMFS*, 265 F.3d 1028, 1034 (9th Cir. 2001).

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.[41]

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 Environmental Coalition v. Florida*, and it was not clear whether those claims were premised on the ESA or on another legal basis.[42] In an Eighth Circuit case, *Sierra Club v. U.S. Army Corps of Engineers*,[43] 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).[44]

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.[45] Those regulations were effective only from January 15, 2008, to May 5, 2008, after Congress acted to halt them in P.L. 111-8.[46] 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."[47] Despite the revocation of those changes,

[41] Article available at http://www.biologicaldiversity.org/programs/biodiversity/endangered_species_act/pdfs/bio201262712_Forum_Greenwald.pdf.

[42] 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.

[43] 645 F.3d 978 (8th Cir. 2011).

[44] 776 F. Supp. 2d 1007 (N.D. Cal. 2011).

[45] 73 *Federal Register* 76272 (December 16, 2008) (effective January 15, 2009).

[46] 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").

[47] 73 *Federal Register* 47872.

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.[48]

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.[49] The polar bear was listed under the act primarily due to shrinking habitat caused by changing climate.[50] The polar bear regulation prevents a lawsuit that claims that a power plant in any state other than Alaska harmed the polar bear by indirectly causing its ice floe 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.[51]

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 Basin

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 BiOps (by FWS and NMFS) have been variously criticized and defended.[52]

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[48] 50 C.F.R. §402.02.

[49] 50 C.F.R. §17.40(q)(4). See also, CRS Report RL33941, *Polar Bears: Listing Under the Endangered Species Act*, by Eugene H. Buck, M. Lynne Corn, and Kristina Alexander.

[50] 73 *Federal Register* 28212 (May 5, 2008).

[51] 75 *Federal Register* 76085.

[52] For additional background on this regional issue, see CRS Report R42157, *Klamath River Basin: Background and* (continued...)

Recently two agreements that would attempt to resolve conflicts in the Klamath Basin have been agreed to by federal and non-federal entities and received media attention.[53] 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 in the Basin. A second agreement with PacifiCorp (a private company), the Klamath Hydropower Settlement Agreement, 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, Secretary of the Interior Salazar announced the completion of scientific and technical studies concerning the environmental and economic impacts of removing four Klamath River hydroelectric dams.[54] Implementation of both agreements requires congressional authorization and subsequent appropriations.

In the 112th Congress, legislation authorizing the agreements was introduced but not acted upon. At issue for the 113th Congress is whether to provide legislative approval and support for the two new Klamath agreements.

Gray Wolf

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.[55] 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.

In 2003, FWS determined that the two DPSs no longer needed the protection of the ESA and so they were delisted. The Western and Eastern 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, FWS responded by returning the wolves in the Western Great Lakes and parts of the Northern Rocky Mountains areas to their former protected status, eliminating the DPS designations. That 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. In April 2009 FWS published notices establishing 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). A court held in August 2010 that the Northern Rockies delisting violated the ESA, directing that the delisting be declared invalid.[56] The Northern Rockies wolves were returned to their experimental population status, meaning

(...continued)

Issues, coordinated by Charles V. Stern.

[53] Copies of the two agreements can be found at http://www.edsheets.com/Klamathdocs.html.

[54] See http://www.doi.gov/news/pressreleases/Salazar-Announces-Release-of-Klamath-Dam-Removal-Studies.cfm.

[55] For more information, see CRS Report RL34238, *Gray Wolves Under the Endangered Species Act (ESA): Distinct Population Segments and Experimental Populations*, by Kristina Alexander and M. Lynne Corn, and CRS Report R41730, *The Gray Wolf and the Endangered Species Act: A Brief Legal History*, by Kristina Alexander.

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

they are treated as threatened in most circumstances. Meanwhile, critics argue that allowing Congress to remove or add protections for particular species would set a dangerous precedent.[57]

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.

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.[58] 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 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 or to delist Wyoming's wolves.

Also in April 2011, FWS took action addressing wolves in other parts of the United States. FWS has proposed to delist the wolves in the Western Great Lakes and to recognize wolves in eastern states as a different species (*Canis lycaon*) from the wolves found in most of the rest of the country:

> 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.[59]

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

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

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

[59] There is no notice yet in the *Federal Register.* See press release at http://us.vocuspr.com/Newsroom/Query.aspx?SiteName=fws&Entity=PRAsset&SF_PRAsset_PRAssetID_EQ=115700&XSL=PressRelease&Cache=True.

Delta Smelt

Delta smelt (*Hypomesus transpacificus*) is a small, slender-bodied fish found only in the San Francisco Bay and Sacramento-San Joaquin Rivers Delta in California (Bay-Delta), where they were once abundant.[60] The species was listed as threatened under ESA in 1993 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 entrainment (i.e., entrapment) in water export pumps, competition and predation from exotic fish species, warmer water temperatures, toxic contaminants, changes in habitat size and quality, and changes in food supply.[61] The contribution of each factor in causing the species decline is controversial. Some contend that all causes might contribute to the observed decline.[62]

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 entrainment and/or adverse modification of delta smelt critical habitat by water pumps is believed to contribute to the decline of delta smelt, changes in how these pumps are operated have triggered consultation under ESA. ESA requirements following consultation have contributed to reduced pumping and less water for users, which has been very controversial.

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.[63] 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.[64] 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.[65] A revised BiOp was issued December 15, 2008.[66] FWS determined that the continued operation of water projects in the Bay-Delta, as described in the CVP Operations Criteria and Plan (OCAP) biological assessment, was likely to jeopardize the continued existence of the delta smelt and

[60] For additional background, see CRS Report R41876, *Biological Opinions for the Sacramento-San Joaquin Delta: A Case Law Summary*, by Kristina Alexander.

[61] 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.

[62] 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 for 2008. See *Pelagic Organism Decline Progress Report: 2007 Synthesis of Results*, at http://www.fws.gov/sacramento/es/documents/POD_report_2007.pdf.

[63] 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).

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

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

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

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 BiOp was issued.

At issue during the 113th Congress may be congressional oversight of proposals to change operations and authorities for the Bureau of Reclamation's Central Valley Project and environmental and/or economic damages from federal water project operations.

Private Property and Fifth Amendment Takings

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.[67] Conflicts between ESA and property owners come about despite the existence of ESA mechanisms 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. 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.[68] 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 all but two finding no 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 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. Of the two decisions favoring the property owner, one, involving reduced water delivery to a water district owing to

[67] See CRS Report RL31796, *The Endangered Species Act (ESA) and Claims of Property Rights "Takings"*, by Robert Meltz.

[68] 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.

the need to maintain in-stream flows for listed fish, has been undermined by the judge who wrote it in a later decision.[69] The other, however, instructs that when government requires water subject to appropriative water rights to be physically diverted to a fish ladder (here, for the use of a listed fish species), the diversion must be analyzed under a physical rather than regulatory taking theory.[70] Under such a theory, as noted, the holder of water rights is generally likely to win its taking claim. In the present case, however, the trial court on remand held that the water diverted to the fish ladder had not been shown to encroach on the water actually needed by the plaintiff water district for its customers. The court therefore dismissed the case as not ripe, and it is on appeal again.[71]

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.

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 Service[72]

Table 2 summarizes recent ESA and related funding for FWS. The Administration's FY2013 budget request was released on February 13, 2012. The Administration proposed that FY2013 funding for endangered species programs in FWS's Ecological Services account increase by about $3.7 million (+2.1%) above the FY2012 enacted funding. In addition, the Administration proposed an increase of $12.3 million (+25.8%) for the Cooperative Endangered Species Fund above what was enacted for FY2012. On July 10, 2012, the House Committee on Appropriations reported H.R. 6091 (H.Rept. 112-589), proposing significantly reduced FY2013 funding for most ESA programs. Under this measure, funding for FWS core ESA programs would have been reduced by $41.9 million (24%) from funding enacted for FY2012 and by $45.7 million (25%) from the Administration's FY2013 request. In the absence of final action on this bill, a continuing resolution, P.L. 112-175, provided FY2013 funding through March 27, 2013, for projects and activities at the FY2012 level.

[69] See *Casitas Municipal Water Dist. v. United States*, 76 Fed Cl. 100 (2007), aff'd in part, reversed in part on other grounds, 543 F.3d 1276 (Fed. Cir. 2008), holding to the contrary of *Tulare Lake Basin Water Storage Dist. v. United States*, 49 Fed. Cl. 313 (2001).

[70] *Casitas Municipal Water Dist*., 543 F.3d 1276.

[71] 102 Fed. Cl. 443 (2011), *appeal pending before Federal Circuit.*

[72] For an overview of FWS appropriations, see CRS Report R42466, *Fish and Wildlife Service: FY2013 Appropriations and Policy*, by M. Lynne Corn.

Table 2. Funding for FWS Endangered Species and Related Programs, FY2011-FY2013

($ in thousands)

	FY2011 Request	FY2011 Enacted	FY2012 Request	FY2012 Enacted	FY2013 Request	FY2013 Hse Rpt
Endangered Species Program						
Candidate Conservation	11,471	11,448	11,426	11,337	11,463	10,554
Listing	20,945	20,902	24,644	20,869	22,431	14,564
Consultation	63,299	61,877	62,888	60,943	64,095	45,865
Recovery	85,611	81,219	83,692	82,806	81,709	63,034
Subtotal	*181,326*	*175,446*	*182,650*	*175,955*	*179,698*	*134,017*
Related Programs						
Cooperative Endangered Species Fund	85,000	59,880	100,000	47,681	60,000	14,129
Multinational Species Fund[a]	10,000	9,980	9,750	9,466	9,980	4,735
Neotropical Bird Fund[b]	4,000	3,992	5,000	3,786	3,786	1,893
Total FWS	**280,326**	**249,298**	**297,400**	**236,888**	**253,464**	**154,774**

Sources: Annual budget justifications, House and Senate committee and conference reports. FY2011 enacted and FY2012 House Report figures from H.Rept. 112-151.

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 Service

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**).[73] The Administration proposed that FY2013 funding for NMFS's protected species programs in NOAA's Operations, Research, and Facilities (OR&F) account decrease by about $6.4 million (-3.6%) below the FY2012 enacted funding. On April 19, 2012, the Senate Committee on Appropriations reported S. 2323 (S.Rept. 112-158), recommending that FY2012 funding for Protected Species be increased by $14.3 million (8.4%) from that proposed by the Administration and by $7.9 million (4.5%) above the FY2012 enacted funding. On May 2, 2012, the House Committee on Appropriations reported H.R. 5326 (H.Rept. 112-463), recommending that FY2012 funding for Protected Species be decreased by $15.8 million (-9.3%) from that proposed by the Administration and by $22.2 million (-12.6%) below the FY2012 enacted funding. On May 10, 2012, the House passed H.R. 5326 (amended). In the absence of final action

[73] The Department of Commerce "Budget in Brief" is available at http://www.osec.doc.gov/bmi/budget/FY13BIB/fy2013bib_final.pdf.

on either bill, a continuing resolution, P.L. 112-175, provided FY2013 funding through March 27, 2013, for projects and activities at the FY2012 level.

Table 3. Funding for NMFS Protected Species Programs, FY2011-FY2013

($ in thousands)

	FY2011 Enacted	FY2012 Request	FY2012 Enacted	FY2013 Request	FY2013 Sen Rpt	FY2013 Hse Psd
Protected Species	199,447	216,581	176,451	170,041	184,347	154,234

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

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