The Endangered Species Act (ESA) in the 111th Congress: Conflicting Values and Difficult Choices

Eugene H. Buck
Specialist in Natural Resources Policy

M. Lynne Corn
Specialist in Natural Resources Policy

Pervaze A. Sheikh
Specialist in Natural Resources Policy

Robert Meltz
Legislative Attorney

Kristina Alexander
Legislative Attorney

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Summary

The Endangered Species Act (ESA; P.L. 93-205, 16 U.S.C. §§ 1531-1543) has been one of the more contentious environmental laws. This may stem from its strict substantive provisions, which can affect the use of both federal and nonfederal lands and resources. 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. Once a species is listed, powerful legal tools are available to aid its recovery and protect its habitat. ESA may also be controversial because dwindling species are usually harbingers of broader ecosystem decline. ESA is considered a primary driver of large-scale ecosystem restoration issues. The most common cause of species listing is habitat loss.

The 111th Congress may consider whether to revoke ESA regulations promulgated in the waning days of the Bush Administration that would alter when federal agency consultation is required. In addition, legislation related to global climate change may include provisions that would allocate funds to the U.S. Fish and Wildlife Service's endangered species program and/or to related funds 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 and procedures, protection by and incentives for property owners, and appropriate protection of listed species, among others.

The 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 Congress to reauthorize the ESA.

This report discusses oversight issues and legislation introduced in the 111th Congress to address specific concerns related to how ESA is implemented and how endangered and threatened species are managed.

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Most Recent Developments

On January 15, 2009, the Senate passed, amended, S. 22, amending P.L. 106-392 to (1) extend the authorizations for the Upper Colorado and San Juan River Basin endangered fish recovery programs through FY2023 (Section 9107) and (2) authorize the implementation of the San Joaquin River Restoration Settlement, providing for the reintroduction of Chinook salmon (Title X, Subtitle A).

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, 16 U.S.C. §§ 1531 et seq.)—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 of its strict substantive provisions, which can affect the use of both federal and nonfederal lands and resources. Congress faces the issue of how to balance these interests (which may fall on various sides of any given species controversy) 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] Consequently, congressional efforts in the 110th Congress focused on addressing specific controversial features of ESA and on oversight of concerns such as the science used for making decisions and designation of critical habitat.[3]

Background and Analysis

Overview

The 1973 ESA (P.L. 93-205, as amended; 16 U.S.C. §§ 1531-1543) was a comprehensive attempt to protect species at risk of extinction and to consider habitat protection as an integral part of that effort. A stated purpose of ESA is to protect the ecosystems of which listed species are a part.

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

[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.

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. More flexible management can be provided for species listed as threatened. Distinct population segments of vertebrate species may also be listed 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, powerful 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.[4]

ESA is administered by the Department of the Interior's Fish and Wildlife Service (FWS) for terrestrial and freshwater species and some marine mammals, and by the National Marine Fisheries Service (NMFS; also referred to as NOAA Fisheries) in the Department of Commerce's National Oceanic and Atmospheric Administration for the remaining marine and anadromous[5] 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 28, 2009, a total of 1,143 species of animals and 749 species of plants were listed as either endangered or threatened under the ESA, of which the majority (572 species of animals and 746 species of plants) occur in the United States and its territories; the remainder occur only in other countries.[7] Of the 1,318 U.S. species, 1,130 (85.7%) are covered in recovery plans.[8] Of the U.S. species, 540 (41.0%) have designated critical habitat (CH) in some portion of their range.[9]

In the most recent data available, FY2006 federal and state expenditures on endangered and threatened species totaled $1,701,555,843, of which $1,647,783,646 was reported by federal agencies and $53,772,197 was reported by the states.[10] The top 10 species with the most total FY2006 expenditures (excluding land acquisition costs) included pallid sturgeon (almost $39 million), seven subpopulations of steelhead and Pacific salmon (altogether, more than $209 million), Steller sea lion (almost $25 million), and bull trout (almost $24 million).

[4] For additional background, see CRS Report RL31654, *The Endangered Species Act: A Primer*, by M. Lynne Corn, Eugene H. Buck, and Kristina Alexander.

[5] 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.

[6] 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 September 2007 that it considered 16,306 species to be threatened with extinction—an increase of 188 species since 2006. In addition, the IUCN identifies 785 species that have become extinct, with an additional 65 species found only in captivity or in cultivation. For more information, see http://www.iucn.org/en/news/archive/2007/09/12_pr_redlist.htm.

[8] Daily updated statistics are available at http://ecos.fws.gov/tess_public/Boxscore.do.

[9] A list of species with designated CH is available at http://ecos.fws.gov/tess_public/CriticalHabitat.do?listings=0&nmfs=1.

[10] U.S. Fish and Wildlife Service, *Federal and State Endangered and Threatened Species Expenditures, Fiscal Years 2005-2006*; available at http://www.fws.gov/endangered/pdfs/expenditures/Expenditures_Report_FY05-06.pdf.

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 ecosystems as the units of interest, rather than species. 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 mussel species).

Major Provisions of Domestic Law

Listing

Species may be listed on the initiative of the appropriate Secretary or by petition from an individual, group, or state agency. By law, the Secretary must decide whether to list the species based only on the best available scientific and commercial information, after an extensive series of procedural steps to ensure public participation and the collection of scientific information.[11] In deciding whether a species warrants the protections of ESA, the Secretary may not take into account the economic effects that listing may have; economic and other considerations are taken into account in structuring alternatives for assisting the species after listing.[12]

In addition, FWS and NMFS may identify selected species by adding them to a list of candidate species that are believed to be at sufficient risk to warrant protection, but whose protection is precluded by work to protect listed species. As of January 28, 2009, there were 252 species on the list of candidate species.[13]

Critical Habitat

With certain exceptions, if a species is listed, the Secretary must designate critical habitat (CH) in areas where the species is currently found or which might provide additional habitat for the species' recovery.[14] However, if the publication of this information is not prudent (e.g., might encourage vandals or collectors), the Secretary may decide not to designate CH. In addition, the Secretary may postpone designation for up to one year after listing, if the information is not determinable (16 U.S.C. § 1533). As of January 28, 2009, FWS had designated CH for 41% of listed domestic species.

[11] For a more detailed discussion of the listing process, see http://www.fws.gov/endangered/pdfs/listing/listing.pdf and http://www.fws.gov/endangered/bulletin/99/11-12/6-9.pdf.

[12] For an analysis of when and how ESA allows consideration of economic factors, see CRS Report RL30792, *The Endangered Species Act: Consideration of Economic Factors*, by Pamela Baldwin.

[13] The list of candidate species is available at http://ecos.fws.gov/tess_public/SpeciesReport.do?listingType=C.

[14] For additional background on CH, see CRS Report RS20263, *Designation of Critical Habitat under the Endangered Species Act (ESA)*, by Pamela Baldwin.

As a practical matter, CH has not been designated for most listed species largely because FWS prefers to allocate its resources to listing new species, based on its regulation (50 C.F.R. § 402.02) that takes away much of the legal value of designating CH for the recovery of the species. Yet FWS consistently loses legal challenges for failure to designate CH, and several courts have found the regulation in question to be an erroneous interpretation of the law because it does not take into account the duty to avoid adverse modification of CH.[15] Others have asserted the value of CH; for example, scientists with the Center for Biological Diversity published a study in April 2005 concluding that CH designation enhances species recovery.[16] As for timing of the designation, the Keystone Center's ESA Working Group on Habitat released a report on April 28, 2006, on habitat protection and ESA.[17] One conclusion of this study was that identifying the habitat that species require to recover is better done in the context of recovery planning, after more rigorous analysis and deliberation have been completed, rather than at the time of listing. Although recovery plans are not enforceable, preventing adverse modification of CH is enforceable.

CH is frequently misunderstood by the public as posing a significant direct restriction on private landowners' authority to manage their land. While a landowner may experience some additional procedures and possible restrictions on land management because of the presence of an ESA-listed species (through ESA's prohibitions on taking a listed species), and the presence of CH may shed light on whether "harm" has occurred, the duty to avoid adverse modification of CH is an express obligation only for federal agencies and actions, and may affect private (nonfederal) actors only where and when actions involve a federal nexus (i.e., involve any federal funding, permit, or license).

Prohibitions and Penalties

ESA contains prohibitions on the "take" of endangered species; take means to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct" (16 U.S.C. § 1532; harassment and harm are further defined by regulation at 50 C.F.R. § 17.3). There has been controversy over the extent to which habitat modification is prohibited. A 1995 Supreme Court decision held that including significant habitat modification was a reasonable interpretation of the term "harm" in ESA.[18] ESA provides civil and criminal penalties for violations.

Permits and Consultation

FWS and NMFS do not initiate the permitting process—agencies and individuals wishing to avoid ESA violations contact FWS or NMFS to initiate consultation that may conclude with permit issuance. Proposed actions that may have adverse impacts on listed species may be permitted in two ways. First, under Section 7 of ESA, if federal agency actions (or actions of a nonfederal party that require an agency's approval, permit, or funding) may affect a listed species,

[15] *Sierra Club v. FWS*, 245 F. 3d 434 (5th Cir. 2001), cited with approval in *New Mexico Cattle Growers Ass'n v. FWS*, 248 F. 3d 1277 (10th Cir. 2001); *Gifford Pinchot Task Force v. FWS*, 378 F. 3d 1059 (9th Cir. 2004).

[16] See http://www.biologicaldiversity.org/swcbd/programs/policy/ch/bioscience2005.pdf.

[17] Available at http://www.keystone.org/spp/documents/ESA%20Report%20FINAL%204%2025%2006%20(2).pdf.

[18] Babbitt v. Sweet Home Chapter of Communities for a Great Oregon, 515 U.S. 687 (1995). See CRS Report 95-778, *Habitat Modification and the Endangered Species Act: The Sweet Home Decision*, by Pamela Baldwin.

the federal agency must ensure that those actions are "not likely to jeopardize the continued existence" of any endangered or threatened species, nor to destroy or adversely modify CH. This does not apply in those instances where a law requires a federal agency to take only certain specific actions in order to satisfy the law, according to a 2007 decision by the U.S. Supreme Court.[19]

To review the possible effects of their actions on listed species and CH, federal agencies are to consult with the appropriate Secretary. If the Secretary finds that an action would jeopardize a listed species or destroy or adversely modify CH, the Secretary is to suggest any reasonable and prudent alternatives that would avoid these harms. Pending completion of the consultation process, agencies may not make irretrievable commitments of resources that would foreclose any alternatives. The Secretary issues a written statement, called a biological opinion (BiOp), that may allow the agency or the applicant to take individuals of a species incidental to otherwise lawful activities without triggering ESA's penalties, subject to terms and conditions specified in the opinion (16 U.S.C. § 1536), or may conclude that jeopardy cannot be avoided, in which case the agency may seek an exemption for the action from the Endangered Species Committee.

For actions without a federal nexus (i.e., no federal funding, permit, or license), the appropriate Secretary may issue permits under Section 10(a) of ESA to allow the incidental take of species during otherwise lawful actions.[20] An applicant for a permit is to submit a habitat conservation plan (HCP) that shows the likely impact of the planned action; steps taken to minimize and mitigate the impact; funding for the mitigation; alternatives considered and rejected; and any other measures the Secretary may require. The use of this section has been vastly expanded, and streamlined procedures are provided for activities with minimal impacts (50 C.F.R. § 17.22).

On December 16, 2008, FWS published final regulations allowing federal action agencies, in some circumstances, to decide independently whether agency projects might harm ESA-listed species, eliminating consultation with FWS and/or NMFS scientists.[21] These regulations took effect on January 15, 2009. Critics question this regulation, fearing that it provides federal agencies, some with little scientific expertise, with an unacceptable degree of discretion in deciding whether or not to comply with ESA.[22] A lawsuit against these regulations has been filed by various interest groups and the State of California.[23]

Exemptions

Proponents of a federal action may apply for an exemption from the prohibition against jeopardy for that action (not for a species). Under ESA, an Endangered Species Committee (often referred to as the "God Squad") decides whether to allow a federal action project to proceed despite likely jeopardy to a species. The requirement that an exemption applicant must pay for mitigation may deter potential applicants. To date, this process has been little used and only one exemption (Grayrocks Dam, WY) has been granted and carried out. The committee is required to accept the

[19] National Association of Home Builders v. Defenders of Wildlife, 127 S. Ct. 1258 (2007).

[20] For additional background on FWS's permitting program, see http://www.fws.gov/endangered/pdfs/permits.pdf.

[21] 73 *Federal Register* 76272-76287 (December 16, 2008).

[22] Juliet Eilperin, "Endangered Species Act Changes Give Agencies More Say," *Washington Post*, August 12, 2008, p. A1.

[23] For additional information, see CRS Report RL34641, *Proposed Changes to Regulations Governing Consultation Under the Endangered Species Act (ESA)*, by Kristina Alexander and M. Lynne Corn.

President's determination (under specified circumstances) on an exemption in declared disaster areas. The committee must grant an exemption if the Secretary of Defense determines that it is necessary for national security (16 U.S.C. § 1536). From time to time, the Department of Defense (DOD) has claimed that requirements under ESA conflict with its readiness activities, but DOD has not requested any exemptions to date.[24] In the 111th Congress, H.R. 672 would restrict the use of military and national security exemptions to ESA restrictions on the taking of listed species or modification of their habitat.

Other statutes may provide for waivers of ESA provisions; for example, Section 102(c) of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996[25] provides for a waiver of ESA and the National Environmental Policy Act (NEPA) to the extent the Attorney General determines necessary to ensure expeditious construction of barriers and roads at borders. The Secretary of Homeland Security has the authority to waive ESA (and other laws) "to ensure expeditious construction of the barriers and roads" at the border.[26] Secretary Chertoff invoked this waiver for different portions of the Mexican border fence in 2005 and two times in 2007.

Emergencies

ESA has provisions for emergencies; they apply when a species is in danger, not when a project needs to be rushed.[27] In Section 4, which describes the process for listing species, ESA provides shortened timelines for listing species where an emergency poses "a significant risk to the wellbeing of any species." The best scientific and commercial data must still be used. A shortened period for obtaining an exemption or permit is also available, "where the health or life of an endangered animal is threatened and no reasonable alternative is available to the applicant."[28]

According to FWS, any hurricane-related federal activities in presidentially declared disaster areas would trigger the emergency consultation provisions of ESA. Specifically, for the 2005 Gulf of Mexico hurricanes, FWS stated that "restoring any infrastructure damaged or lost due to the hurricane back into the original footprint **does not require consultation** with the Service."[29]

In the 111th Congress, Section 1(b) of H.R. 996 would, on the declaration of an emergency by a state governor, require the Secretary of the Interior and the Secretary of Commerce, for the duration of the emergency, to temporarily exempt actions necessary to address the impact of the emergency from the ESA's prohibitions against taking and adverse modification of critical habitat.

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[24] However, Section 318(a) of the National Defense Authorization Act for FY2004 (P.L. 108-136) authorizes the Secretary of the Interior to exempt military lands from designation as critical habitat under ESA, if the Secretary determines "in writing" that an Integrated Natural Resource Management Plan (INRMP) for such lands provides a "benefit" to the species for which critical habitat is proposed for designation. For additional information, see CRS Report RS22149, *Exemptions from Environmental Law for the Department of Defense (DOD)*, by David M. Bearden.

[25] Division C of P.L. 104-208; 110 Stat. 3009-554.

[26] P.L. 109-13, 119 Stat. 231.

[27] In case of emergencies, 50 C.F.R. § 402.05 provides for ESA procedures, requiring only very informal consultations during an emergency with more complete consultation after the emergency has passed.

[28] 16 U.S.C. § 1539(c).

[29] Letter from Jackie Parrish, Acting Regional Director, Southeast Region, U.S. Fish and Wildlife Service, Sept. 13, 2005, available at http://www.fws.gov/southeast/katrina/hurricane%20response%20memo905v2.pdf.

Recovery Plans

The appropriate Secretary generally must develop a recovery plan for the survival and conservation (defined in Section 3(3) of ESA as "to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary"—i.e., recovery) of a listed species. These plans are not binding on federal agencies or others, but rather serve as guidelines. Species with recovery plans are reported to Congress every two years. At first, recovery plans tended to cover popular species, like birds or mammals, but a 1988 amendment forbade the Secretary from favoring particular taxonomic groups (16 U.S.C. § 1533).

On July 31, 2008, FWS published guidance on the use of a crediting framework in carrying out recovery measures, allowing federal agencies to offset adverse effects on listed species by beneficial actions taken elsewhere.[30] Under this guidance, federal agencies would create conservation "banks" by paying private landowners to conserve species, allowing federal agencies to offset activities (e.g., military training exercises, oil and gas exploration and development, federal timber sales) on public land that could harm species. Critics of this guidance question whether the trade (conservation damage in one federal area offset by conservation benefit in another area) would still maintain the same level of accountability and enforcement. Actions on private land to protect listed species might not achieve the level federal agencies are required to provide on public lands.

Land Acquisition and Cooperation

The federal government may acquire land to conserve or recover listed species, and ESA authorizes money from the Land and Water Conservation Fund for land acquisition (16 U.S.C. § 1534). By law, the appropriate Secretary must cooperate with the states in conserving protected species and must enter into cooperative agreements to assist states in their endangered species programs, if the programs meet certain specified standards.[31] If there is a cooperative agreement, the states may receive federal funds to implement the program, but must normally provide a minimum 25% match. Under the 1988 amendments, the Cooperative Endangered Species Conservation Fund was created to provide state grants. While regular annual deposits to this fund are set by a formula (16 U.S.C. § 1535(i)(1)), spending from the fund requires annual appropriation.

Miscellaneous

Other provisions specify exemptions for certain captive raptors and their progeny, regulate subsistence activities by Alaskan Natives, prohibit interstate transport and sale of listed species and parts, control trade in parts or products of endangered species owned before ESA went into effect, and specify rules for establishing experimental populations (16 U.S.C. § 1539).

[30] 73 *Federal Register* 44761-44772.

[31] Information on the NMFS program can be found at http://www.nmfs.noaa.gov/pr/conservation/states/.

Implementation of Wildlife Treaties

ESA is the domestic implementing legislation for 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. 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.[32] In contrast to ESA, CITES classifies species based solely on the risk that trade poses to their survival. ESA makes violations of CITES violations of U.S. law if committed within U.S. jurisdiction (16 U.S.C. § 1538). ESA also regulates import and export of controlled products and provides some exceptions.[33]

ESA and CITES also address the 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.[34] In the 110th Congress, the House Committee on Natural Resources held hearings on the effects of illegal wildlife trade on endangered and threatened species.

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.[35] In the 111th Congress, several bills would expand species eligible for assistance from the MSCF by creating a Great Cats and Rare Canids Conservation Fund (H.R. 411) and a Crane Conservation Fund (H.R. 388 and S. 197).

Are Species Protection and Restoration Working?

The answer to this question depends on what is measured. Since 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. In the 25 years since the ESA was enacted in 1973, 46 U.S. and foreign species or distinct population segments thereof have been delisted.[36] The reasons cited by FWS are (a) recovery (20 species); (b) extinction (9 species; however, some may have been extinct when listed); and (c) original data in error (17 species). Recovered species include the American alligator, Yellowstone grizzly bear, bald eagle, brown pelican, peregrine falcon (two subspecies), 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,

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

[33] 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.

[34] 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.

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

[36] For updated information, see http://ecos.fws.gov/tess_public/DelistingReport.do.

the ivory-billed woodpecker, thought by many to be extinct, was believed to have been rediscovered in a remote area of Arkansas a few years ago; it might just as easily have quietly gone extinct without being rediscovered. Rare species are, by definition, hard to find.

Some have asserted that ESA is a failure since only 20 species have been delisted as recovered.[37] Others note 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,"[38] thereby making recovery difficult. 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. If this standard is used, ESA could be considered a success, since a large number (41%, according to one study)[39] of listed species 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.[40]

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*.[41] It reviewed and critiqued various ways that recovery might be measured. One approach is 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.

Table 1. Percent Recovery Achieved Versus Time Listed

(data as of September 30, 2002)

Recovery Plan objectives	% species listed 5 years or less	% species listed 6-10 years	% species listed 11+ years
0%-25% recovery achieved	96	94	64
26%-50% recovery achieved	4	5.5	24
51%-75% recovery achieved	0	0.25	9
76%-100% recovery achieved	0	0.25	3

Source: FWS, *Recovery Report to Congress: Fiscal Years 2001-2002*, p. 13.

An April 2005 study by the Government Accountability Office (GAO) found that, although FWS spends almost half of its recovery funds on the highest-priority species, factors other than a species' priority ranking (e.g., regional office workload, opportunities for partnerships to

[37] Delisted species are identified at http://ecos.fws.gov/tess_public/DelistingReport.do.

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

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

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

[41] Available at http://republicans.resourcescommittee.house.gov/archives/ii00/issues/more/esa/ESA_Implementation_Report5.17.05.pdf.

maximize scarce recovery funds), in practice, determine how funding is allocated.[42] GAO found that FWS does not have a process to routinely assess funding decisions to ensure that they are appropriate. In 2006, GAO examined federal efforts to recover 31 selected species.[43] 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 by the selection of species examined.

A December 2008 study by the Government Accountability Office (GAO) found that, although FWS, NMFS, and other federal agencies had implemented a majority of GAO recommendations to strengthen ESA implementation during the previous 10 years, almost one-third of GAO recommendations had not been implemented.[44] For example:

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

Issues in the 111th 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 were considered in the past, either in oversight or legislation, that seem likely to receive attention in the current Congress.

Revised Regulations for Consultation

On August 15, 2008, FWS and NMFS (i.e., Services) issued proposed revisions to the Section 7 consultation regulations.[45] A draft environmental assessment was prepared under the National Environmental Policy Act, finding that the changes would not have a significant impact on the

[42] 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.

[43] 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, 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.

[44] 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.

[45] 73 *Federal Register* 76272 (Dec. 16, 2008).

environment.[46] The final version was published December 16, 2008, and took effect January 15, 2009.[47] A lawsuit was filed to set aside the changed regulations, claiming they violated federal law.[48]

Six substantive changes were proposed to the regulations. The alterations included the following:

- changing the definition of biological assessment (BA);[49]
- changing the definition of cumulative effects;[50]
- changing the definition of effects of the action;[51]
- changing when a consultation is needed;[52]
- changing the procedure for informal consultation;[53] and
- changing the procedure for formal consultation.[54]
- The final regulations revise the consultation process by (1) allowing already prepared documents to be used as a BA; (2) allowing action agencies greater discretion to determine whether consultation applies; (3) clarifying certain definitions; and (4) making procedural changes to informal consultations.[55] The final regulations altered the criteria for when a consultation is needed, but otherwise made no significant changes to the proposed version.

An additional stated goal of the revised regulations relates to climate change. The Services said that the modifications would "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."[56] Some believe that the ESA is not the appropriate statutory vehicle for regulating greenhouse gas emissions, as it was not implemented to analyze air quality. Others note that the ESA has no exceptions for types of projects, and therefore, regulations cannot create one. Still others suggest that the existing causation requirements linking an agency action to a particular harm already limit the ESA's use as a tool in regulating global warming.

The suit against the changes argues that the revisions will not achieve these goals:

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[46] 73 *Federal Register* 63667 (Oct. 27, 2008). The final EA was announced with the final regulations (73 *Federal Register* 76272).

[47] Comments were originally due within 30 days, but that was extended to 60 days. 73 *Federal Register* 52942, 52943 (Sept. 12, 2008). Although no specific number of comments was given in the final notice, as usually is done, reportedly more than 200,000 comments were received. See, for example, Erika Dimmler, "Environmentalists Blast Changes to Endangered Species Rules," CNN.com (Dec. 12, 2008).

[48] *Center for Biological Diversity v. Kempthorne*, No. CV-08-5546 (N.D. Cal. *filed* Dec. 11, 2008). The Center for Biological Diversity, Greenpeace, and Defenders of Wildlife were plaintiffs. The State of California joined the suit as a plaintiff.

[49] 50 C.F.R. § 402.02.

[50] Id. at § 402.02.

[51] 50 C.F.R. § 402.02.

[52] 50 C.F.R. § 402.03.

[53] 50 C.F.R. § 402.13.

[54] 50 C.F.R. § 402.14.

[55] 73 *Federal Register* 47869.

[56] 73 *Federal Register* 47872.

> contrary to the Services' characterization, the proposed changes would severely limit the kinds of direct, indirect, and cumulative effects that must be addressed in section 7 consultations, and would also result in a plethora of actions harmful to listed species proceeding without the Services' input or involvement merely because the Services lacked adequate time or resources to respond within the mandatory time frames imposed by the regulations.[57]

In the 111th Congress, H.J.Res. 18 would provide for congressional disapproval of the rule submitted by the Department of the Interior and the Department of Commerce under Chapter 8 of Title 5, *U.S. Code*, relating to interagency cooperation under ESA. H.R. 585 would direct the President to enter into an arrangement whereby the National Academy of Sciences would determine the impact of the FWS/NMFS rule amending regulations governing interagency cooperation and consultation under ESA Section 7. Section 429 of H.R. 1105 would authorize the Secretaries of the Interior and Commerce to withdraw or reissue the regulation relating to interagency cooperation and consultation under ESA within 60 days of this measure's enactment.

Critical Habitat Designation

With limited exceptions, by law FWS or NMFS must designate CH at the time a species is listed. However, some critics argue that CH designation places undue burdens on landowners or that it has little conservation benefit. Others argue (and the courts have largely agreed) that FWS and NMFS have misinterpreted and failed to enforce the current statute. There are also disagreements over the value and timing of CH designation.[58] (See "Critical Habitat," above.)

"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."[59] 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 Desert bald eagles.[60] 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 or because it is difficult to locate enough of them to support definitive scientific research. 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. What should be done in such instances? 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 costs and time required to acquire more complete data, particularly in connection with many lesser-known species.

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[57] *Center for Biological Diversity v. Kempthorne*, No. CV-08-5546, at 17-18 (N.D. Cal. *filed* Dec. 11, 2008).

[58] For details on how legislation in the 109th Congress sought to address this issue, see CRS Report RL33468, *The Endangered Species Act (ESA) in the 109th Congress: Conflicting Values and Difficult Choices*, by Eugene H. Buck et al.

[59] 16 U.S.C. § 1533(b)(1)(A).

[60] See CRS Report RL32992, *The Endangered Species Act and "Sound Science"*, by Eugene H. Buck et al.

ESA does not elaborate on this question, but some assert that, given the protective purpose of ESA—to save and recover species—and the wording of "best ... data available," species that may be dwindling are to be given the benefit of the doubt and a margin of safety. This is the position taken on pages 1-7 of the joint FWS/NMFS Endangered Species Consultation Handbook, which states that efforts should be made to develop information, but if a BiOp must be rendered promptly, it should be based on the available information, "giving the benefit of the doubt to the species," with consultation possibly being reinitiated if additional information becomes available.[61] This phrase is drawn from H.Rept. 96-697, p. 12 (1979),[62] which states that the "best information available" language was intended to allow FWS or NMFS to issue BiOps even when information was incomplete, rather than being forced to issue negative opinions for lack of data. The report also states that if a BiOp is rendered on the basis of inadequate information, the federal agency proposing an action has the duty to show that its actions will not jeopardize a species and a continuing obligation to make a reasonable effort to develop information, and that the statutory language "continues to give the benefit of the doubt to the species."

Information Quality

Section 515 of P.L. 106-554, known as the Information Quality Act or the Data Quality Act, directs the Office of Management and Budget (OMB) to issue government-wide guidelines to federal agencies to ensure and maximize the quality, objectivity, utility, and integrity of information disseminated by federal agencies. OMB published final guidelines on February 22, 2002.[63] The Department of the Interior and FWS have both issued additional guidelines that are available through their websites,[64] and have established a process for interested persons to seek correction of information. Even before these latest guidelines were issued, FWS had promulgated guidance on information quality and peer review procedures—issues that also have been addressed in recent legislation.

FWS and NMFS developed an Interagency Cooperative Policy on Information Standards Under the Endangered Species Act.[65] Under this policy, FWS and NMFS are to receive and use information from a wide variety of sources, including individuals. Submitted information may range from the informal—oral, traditional, or anecdotal—to peer-reviewed scientific studies, and hence the reliability of the information can vary widely. Agency biologists are to review and evaluate all information impartially for purposes of listing, CH designation, consultation, recovery, and permitting actions, and to ensure that any information used by the agencies to implement ESA is "reliable, credible, and represents the best scientific and commercial data available." Agency biologists are to document their evaluations of all information and, to the extent consistent with the use of the best scientific and commercial data available, use primary and original sources of information as the basis for recommendations. In addition, agency managers are to review the work of FWS and NMFS biologists to "verify and assure the quality of the science used to establish official positions, decisions, and actions."

[61] Available at http://www.nmfs.noaa.gov/pr/pdfs/laws/esa_section7_handbook.pdf.

[62] Conference report on S. 1143 in the 96th Congress, which subsequently became P.L. 96-159, reauthorizing and amending ESA.

[63] 67 Federal Register 8452.

[64] For example, see http://www.fws.gov/stand/standards/process_WWW.html.

[65] 59 *Federal Register* 34271, July 1, 1994.

Additionally, a companion document, the Interagency Cooperative Policy for Peer Review in Endangered Species Act Activities,[66] notes that, in addition to the public comments received on proposed listing rules and draft recovery plans, the Services are also to formally solicit expert opinions and peer review to ensure the best biological and commercial information. For listing decisions, the agencies are to solicit the expert opinions of at least three specialists and summarize these in the record of final decision. Special independent peer review can also be used when it is likely to reduce or resolve an unacceptable level of scientific uncertainty.

Court Cases on ESA and Science[67]

Courts, in considering the "best data available" language, have held that an agency is not obliged to conduct studies to obtain missing data,[68] but cannot ignore available biological information,[69] especially if the ignored information is the most current.[70] Nor may an agency treat one species differently from other similarly situated species,[71] 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.[72] "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.[73] 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."[74]

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.[75] In *Arizona Cattle Growers Association v. United States Fish and Wildlife Service*,[76] 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.[77]

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[66] 59 *Federal Register* 34270, July 1, 1994.

[67] For more information, see CRS Report RL32992, *The Endangered Species Act and "Sound Science"*, by Eugene H. Buck et al.

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

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

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

[71] Id.

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

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

[74] *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.

[75] 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).

[76] 273 F. 3d 1229 (9th Cir. 2001).

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

Endangered Species and Climate Change

In the absence of federal regulatory action on climate change, environmental groups are eyeing use of the Endangered Species Act (among other approaches) as a means of restricting greenhouse gas emissions. This approach is still in the embryonic stage. The idea, as spearheaded by the Center for Biological Diversity (CBD), is to petition FWS and NMFS to list as endangered or threatened various animals whose habitat is or will be adversely affected by climate change. (CBD has already done so for several species, including the polar bear.)[78] Once the species is listed, the argument would 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 greenhouse gas-limiting terms and conditions. Note that "take" is defined in the ESA to include "harm" to a member of a listed species, and "harm," in turn, is defined by regulation to include certain "significant habitat modification[s] or degradation[s]." As a result, federal agencies proposing to issue permits for the construction or modification of greenhouse gas sources would be required, the argument runs, to initiate Section 7 consultation.[79]

Any effort to address climate change through the ESA will encounter several obstacles, chief among them whether the causal link between greenhouse gas emissions and habitat harm is too attenuated to fall within the ESA's prohibitions and requirements. The ESA also provides federal agencies with various tools to minimize ESA/climate change conflicts, such as Section 4(d) "special rules" for threatened species.

In May 2008, FWS listed the polar bear as threatened, catapulting the above Section 7, Section 9, and 4(d)-rule mechanisms to the fore. In connection with the listing, FWS opposed using the ESA to address climate change. First, it issued a 4(d) rule for the polar bear specifically excluding from the Section 9 take prohibition "any taking of polar bears that is incidental to, but not the purpose of ... an otherwise lawful activity." An effect of the exclusion appears to be that a coal-fired power plant could not be deemed to "take" polar bears through its greenhouse gas (GHG) emissions. Second, FWS argued in the listing preamble that current scientific understanding has not established a causal connection between specific sources of GHG emissions and specific impacts to polar bears or their habitat, concluding that the Section 7 consultation mechanism would not be triggered by federal actions leading to greater GHG emissions (e.g., permitting of fossil-fuel-fired power plants). More authoritatively, recent regulations amending the Section 7 consultation regulations state that consultation is not necessary if the effects of a government action are shown by "global processes," an undefined term, and those effects cannot be reliably predicted or measured at the local scale, or would have insignificant local impact, or have only a remote risk of harm to listed species or their habitat.[80]

In the 111th Congress, H.R. 1054 would amend the Marine Mammal Protection Act to allow imports of polar bear trophies taken in sport hunts in Canada before the polar bear was listed as a

[78] For additional information on the polar bear, see CRS Report RL33941, *Polar Bears: Listing Under the Endangered Species Act*, by Eugene H. Buck, M. Lynne Corn, and Kristina Alexander.

[79] For additional information, see CRS Report RS22906, *Use of the Polar Bear Listing to Force Reduction of Greenhouse Gas Emissions: The Legal Arguments*, by Robert Meltz, and CRS Report RL34573, *Does the Endangered Species Act (ESA) Listing Provide More Protection of the Polar Bear?*, by Kristina Alexander.

[80] 73 *Fed. Reg*. 76,272 (Dec. 16, 2008).

threatened species under ESA. Section 429 of H.R. 1105 would authorize the Secretary of the Interior to withdraw or reissue the December 2008 special rule that outlines protections afforded polar bears within 60 days of this measure's enactment.

Regional Resource Conflicts

One 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)). As open space dwindles and 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 have been the subject of recent congressional oversight and legislative interest.

Klamath River Basin

Controversy erupted in 2001 when the Bureau of Reclamation 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 for their families 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. The Trinity River diversion from the Klamath basin to central California also has ramifications for the Bureau's role in the Central Valley Project. 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.[81] On July 31, 2007, the House Natural Resources Committee held an oversight hearing on allegations of political intervention influencing scientific and policy decisions at the Department of the Interior, with respect to Klamath River salmon.

A proposed agreement has been drafted among Klamath River stakeholders to address conflicting water management objectives.[82] The parties to this proposed agreement have indicated that, if the agreement is finalized, they will seek legislative support from Congress.

[81] For more information, see CRS Report RL31098, *Klamath River Basin Issues: An Overview of Water Use Conflicts*, by Betsy A. Cody, Pamela Baldwin, and Eugene H. Buck.

[82] See http://www.edsheets.com/Klamathdocs.html.

Pacific Salmon Restoration

Salmon protection in the Pacific Northwest presents many difficult choices, especially because of recent droughts and the connection between regional hydropower facilities and fishery management decisions. NMFS officials have listed a total of 26 distinct population segments (called *evolutionarily significant units* or ESUs) of Pacific salmon and steelhead trout as either threatened or endangered, and are working with state, local, and tribal officials, as well as the public, to implement recovery measures addressing habitat restoration and other concerns. Recent controversies and litigation have focused on three issues: (1) BiOps on operation of the Federal Columbia River Power System as it relates to retaining (or removing) four dams on the lower Snake River, and how properly to factor the presence of the dams into evaluations of jeopardy; (2) whether salmon produced in hatcheries should be included in listed ESUs of Pacific salmon; and (3) the role and extent of CH designation in the recovery of Pacific salmon. In 2007, the hatchery listing policy of NMFS was ruled invalid by a federal court, in part because the court found it scientifically questionable to include hatchery-raised fish under an act designed to protect wild fish.[83] Decisions of the federal district court for Oregon have invalidated NMFS's approach to evaluating jeopardy to salmon from dam operations on the Columbia and Snake Rivers, and ordered increased spills of water to assist transit of juvenile salmon to the sea.[84]

In the 111th Congress, H.R. 372, S. 161, and Title X, Subtitle A, of S. 22 would authorize the implementation of the San Joaquin River Restoration Settlement,[85] providing for the reintroduction of Chinook salmon. The Senate passed S. 22, amended, on January 15, 2009.

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. 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, toxic contaminants, changes in habitat size and quality, and changes in food supply.[86] The contribution of each factor in causing the species decline is controversial. Some contend that entrainment in water pumps is the primary cause, whereas others argue that all causes might be more or less equally responsible for the observed decline.[87]

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[83] *Trout Unlimited v. Lohn*, No. CV06-0483-JCC, 2007 WL 1795036 (W.D. Wash. June 13, 2007).

[84] For details on how legislation in the 109th Congress proposed to address this issue, see CRS Report RL33468, *The Endangered Species Act (ESA) in the 109th Congress: Conflicting Values and Difficult Choices*, by Eugene H. Buck et al.

[85] For additional information on this settlement, see CRS Report RL34237, *San Joaquin River Restoration Settlement*, coordinated by Betsy A. Cody and Pervaze A. Sheikh.

[86] Testimony of Bob Johnson, Commissioner of the Bureau of Reclamation, at House 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.

[87] In 2005, the Pelagic Organism Decline working group was created to address the decline in fish and zooplankton populations in the Bay-Delta. 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:* (continued...)

The Delta smelt decline has significant consequences for the operation of the Central Valley Project (CVP) and the State Water Project (SWP), which supply water to much of California. If entrainment by water pumps is largely responsible for the decline of Delta smelt, changes in how these pumps are operated might be required to satisfy ESA requirements. These requirements could result in reduced pumping and less water for users.

To address the impact of pumping on Delta smelt, an ESA Section 7 consultation between FWS and the Bureau was conducted. FWS 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 brought up by the Bureau. In May 2007, the FWS BiOp was found not to comply with ESA with regard to Delta smelt.[88] The Bureau and FWS reinitiated consultation based on new information on the Delta smelt in 2007. While the consultation process is underway, the Bureau is implementing interim protective measures required by a court order issued in December 2007.[89] A revised BiOp was issued December 15, 2008.[90] FWS determined that the continued operation of water projects in the Bay-Delta as described in the biological assessment (BA) is likely to jeopardize the continued existence of the delta smelt and adversely modify its critical habitat. Along with the revised BiOp, FWS outlined the reasonable and prudent alternative (RPA) intended to protect each life-stage and critical habitat of the delta smelt.

In the 111th Congress, H.R. 856 would authorize support for establishing a fish hatchery program for Delta smelt in the Sacramento-San Joaquin Delta and temporarily exempt two pumping plants from ESA take restrictions.

Counterpart Regulations: Pesticides and Fire Management Projects

ESA regulations found at 50 C.F.R. Section 402.30 and Section 402.40 are referred to as counterpart regulations. These regulations allow certain action agencies to determine whether their actions jeopardize a listed species without having to consult as required by ESA Section 7.

Counterpart pesticide regulations were promulgated by the U.S. Environmental Protection Agency (EPA) for regulatory actions on pesticides.[91] Under the regulations, when EPA took action under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA; P.L. 80-104; 7 U.S.C. §§ 136, et seq.), EPA decided whether a proposed FIFRA action was likely to adversely affect a listed species or critical habitat. EPA made this determination without consultation with, or written concurrence from, the FWS Director, once an alternative consultation agreement was executed. FWS did not review the determination for consistency with ESA.

On August 24, 2006, the District Court for the Western District of Washington overturned the pesticide counterpart regulations, ruling that these regulations did not conform to the plain language or intent of ESA Section 7 because they excused federal action agencies from engaging

(...continued)

2007 Synthesis of Results, at http://www.fws.gov/sacramento/es/documents/POD_report_2007.pdf.

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

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

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

[91] 69 *Federal Register* 47732 (August 5, 2004); 50 C.F.R. Part 402, Subpart D.

in consultation.[92] The court let stand the "optional formal consultation" process, in which NMFS or FWS can adopt EPA effects determinations as their own.

National Fire Plan (NFP) counterpart regulations were promulgated by the Forest Service, Bureau of Land Management, Bureau of Indian Affairs, National Park Service, FWS, and NMFS.[93] The alternative consultation process contained in these counterpart regulations eliminates the need to conduct informal consultation with FWS or NMFS, and eliminates the requirement to obtain written concurrence from FWS or NMFS for those NFP actions that the action agency determines are "not likely to adversely affect" any listed species or designated CH. The District Court for the District of Columbia held that the Alternative Consultation Agreement did not improperly bypass ESA Section 7.[94] In contrast to the pesticide counterpart regulations, the Services must determine that the action agencies' actions are consistent with ESA Section 7. A report by the Services of the NFP counterpart regulations found that all 10 projects reviewed by NMFS were deficient in 5 or 6 criteria, and 44 out of 50 projects reviewed by FWS missed at least 1 of 6 criteria, with 19 missing all of them.[95]

In the 111th Congress, H.R. 585 would direct the President to enter into an arrangement whereby the National Academy of Sciences would determine the impact of P.L. 108-148 (Healthy Forests Restoration Act of 2003) on ESA protection relative to forest fire protection.

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 rallying cry for ESA's detractors, who assert that restrictions under ESA routinely "take" property in the constitutional sense of the term.[96] 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.[97] Although

[92] *Washington Toxics Coalition v. U.S. Department of the Interior*, 457 F. Supp. 2d 1158 (W.D. Wa. 2006); see http://www.eswr.com/latest/selfconsultationorder.pdf.

[93] 68 *Federal Register* 68254 (December 8, 2003); 50 C.F.R. Part 402, Subpart C.

[94] *Defenders of Wildlife v. Kempthorne*, No. 04-1230, 2006 WL 2844232 (D.D.C. September 29, 2006).

[95] NMFS, FWS, FS, and BLM, *Use of the ESA Section 7 Counterpart Regulations for Projects that Support the National Fire Plan, Program Review: Year One* (Jan. 11, 2008), 24 p.; Available at http://www.nmfs.noaa.gov/pr/pdfs/laws/fireplanreview.pdf. See also Appendix A of CRS Report RL34641, *Proposed Changes to Regulations Governing Consultation Under the Endangered Species Act (ESA)*, by Kristina Alexander and M. Lynne Corn.

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

[97] 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. These are vague guideposts only; the Court stresses that every case is to be decided ad hoc. Indeed, many question whether it is even appropriate to call the three factors a test.

these factors have been little explicated by the courts, it is clear that for a taking to occur, the property impact must be severe. Moreover, except for physical takings, the property impact is assessed 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 marauding 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 taking 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 longstanding 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 the need to maintain in-stream flows for listed fish, has been repudiated by the judge who wrote it.[98] 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 species), the diversion must be analyzed under a physical rather than regulatory taking theory.[99] Under such a theory, as noted, the holder of water rights is likely to win its taking claim. The United States is now seeking reconsideration of this decision.

Critics want ESA amended 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. Provisions to that effect have been included in bills of previous Congresses, although not in recent ones. Opponents of an explicit compensation standard counter that ESA should not be singled out for a more property owner-friendly standard than other statutes or the Constitution. More fundamentally, they note that property rights have never been absolute, and that regulation has long been noncompensable as long as the impact on the property owner is not severe.

Additional Legislative Initiatives

Other measures introduced in the 111th Congress relating to ESA include the following:

- Section 9107 of S. 22 would amend P.L. 106-392 to extend the authorizations for the Upper Colorado and San Juan River Basin endangered fish recovery programs through FY2023; the Senate passed this measure, amended, on January 15, 2009.
- H.R. 556 would establish a research program for recovery of the southern sea otter.
- H.R. 672 restricts the use of military and national security exemptions to ESA restrictions on taking of listed species.

[98] 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).

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

- Section 30 of H.R. 1108 would direct the Secretary of the Interior to establish regional OCS Joint Permitting Offices, with expertise in ESA Section 7 consultations and preparation of biological opinions.

FWS 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 changes in ESA.

Table 2 summarizes recent ESA and related funding for FWS. P.L. 110-161 (H.R. 2764, the Consolidated Appropriations Act, 2008) provided more than $236 million for FWS's ESA and related programs. Division A of P.L. 110-329 provided continuing appropriations for FWS until March 6, 2009, at the level of FY2008 appropriations. In the 111th Congress, H.R. 1105 is an omnibus appropriations bill for FY2009.

Table 2. Funding for FWS Endangered Species and Related Programs, FY2006-FY2009

($ in thousands)

	FY2006 Enacted	FY2007 Enacted	FY2008 Enacted	FY2009 Request	FY2009 Omnibus
Endangered Species Program					
Candidate Conservation	8,619	8,425	9,731	8,659	10,870
Listing	17,630	17,824	17,978	18,188	19,266
Consultation	47,997	49,179	51,758	51,577	53,462
Recovery	73,562	69,551	71,041	68,417	74,575
Subtotal	*147,808*	*144,979*	*150,508*	*146,841*	*157,973*
Related Programs					
Landowner Incentive	21,667	23,667	0	0	0
Stewardship Grants	7,277	7,277	0	0	0
Cooperative Endangered Species Fund[a]	80,001	81,001	73,831	75,501	80,001
Multinational Species Fund	6,404	6,404	7,875	4,256	10,000
Neotropical Bird Fund	3,941	3,941	4,430	3,960	4,750
Total FWS	**267,098**	**266,962**	**236,644**	**230,558**	**252,724**

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

a. For FY2006, the conference agreement derived $62.039 million from the Land and Water Conservation Fund (LWCF); for FY2007, LWCF provided $23.667 million; for FY2008, LWCF provided $49.773 million.

Author Contact Information

Eugene H. Buck
Specialist in Natural Resources Policy
gbuck@crs.loc.gov, 7-7262

M. Lynne Corn
Specialist in Natural Resources Policy
lcorn@crs.loc.gov, 7-7267

Pervaze A. Sheikh
Specialist in Natural Resources Policy
psheikh@crs.loc.gov, 7-6070

Robert Meltz
Legislative Attorney
rmeltz@crs.loc.gov, 7-7891

Kristina Alexander
Legislative Attorney
kalexander@crs.loc.gov, 7-8597