

# CRS Report for Congress

## The Endangered Species Act (ESA) in the 110<sup>th</sup> Congress: Conflicting Values and Difficult Choices

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## Summary

The 110<sup>th</sup> Congress took limited action to oversee implementation and funding of the Endangered Species Act (ESA; P.L. 93-205, 16 U.S.C. §§ 1531-1543) and to consider proposals to amend the act. Major issues in recent years have included the role of science in decision-making, consultation requirements for federal agencies, critical habitat (CH) designation and procedures, protection by and incentives for property owners, and appropriate protection of listed species, among others. In addition, many have advocated enacting as law some ESA regulations promulgated during the Clinton Administration.

ESA 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 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. In the 109<sup>th</sup> Congress, several proposals would have reauthorized and extensively amended ESA, but none were enacted. No legislative proposals have been introduced in the 110<sup>th</sup> Congress to reauthorize the ESA.

In the 110<sup>th</sup> Congress, the Food, Conservation, and Energy Act of 2008, P.L. 110-246, included a provision amending the Internal Revenue Code to permit the deduction of expenditures for endangered species recovery. On species of international concern, the 110<sup>th</sup> Congress enacted P.L. 110-132, reauthorizing the African Elephant Conservation Act and the Rhinoceros and Tiger Conservation Act of 1994 through FY2012, and P.L. 110-133, reauthorizing the Asian Elephant Conservation Act through FY2012. A number of bills introduced in both the House and Senate to address global climate change include provisions that allocate funds to the FWS endangered species program and to related funds to assist species adaptation to climate change. Action is doubtful on a host of other bills introduced in the 110<sup>th</sup> Congress.

This report identifies and discusses oversight issues and legislation introduced in the 110<sup>th</sup> Congress to address specific concerns related to how ESA is implemented and how endangered species are managed.

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# The Endangered Species Act in the 110<sup>th</sup> Congress: Conflicting Values and Difficult Choices

## Most Recent Developments

On September 24, 2008, the Senate Committee on Environment and Public Works reported two bills proposing to expand species eligible for assistance from the Multinational Species Conservation Fund by creating a Great Cats and Rare Canids Conservation Fund (H.R. 1464, amended) and a Crane Conservation Fund (H.R. 1771). On September 24, 2008, the House Committee on Natural Resources reported (amended) H.R. 1497, amending the Lacey Act Amendments of 1981 to extend protection to plants illegally harvested outside of the United States. On September 23, 2008, the Senate Committee on Foreign Relations reported S.Res. 598, expressing the sense of the Senate regarding the need for the United States to lead international efforts to assist developing nations in preventing the extinction of a large portion of the world's plant and animal species. On September 16, 2008, the Senate Committee on Energy and Natural Resources reported S. 3189 (amended), amending P.L. 106-392 to extend the authorizations for the Upper Colorado and San Juan River Basin endangered fish recovery programs.

## 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, changes in land management practices, competition from invasive species, and other factors, nearly all related to economic, political, or social interests.<sup>1</sup>

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

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<sup>1</sup> For example, see CRS Report RL34326, *Apalachicola-Chattahoochee-Flint (ACF) Drought: Federal Water Management Issues*, by Nicole T. Carter, M. Lynne Corn, Amy Abel, Stan Mark Kaplan, Eugene H. Buck, Cynthia Brougher, and Kristina Alexander.

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 109<sup>th</sup> Congress, there were several unsuccessful attempts to enact comprehensive legislation that would have reauthorized the ESA.<sup>2</sup> Consequently, congressional efforts have 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.

## 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. 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.<sup>3</sup>

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 popularly referred to as NOAA Fisheries) in the Department of Commerce’s National Oceanic and Atmospheric Administration for the remaining marine and anadromous species.<sup>4</sup> 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 August 26, 2008, a total of 1,180 species of animals and 747 species of plants were listed as either endangered or threatened under the ESA, of which the

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<sup>2</sup> For a review of action by the 109<sup>th</sup> Congress on ESA, see CRS Report RL33468, *The Endangered Species Act (ESA) in the 109<sup>th</sup> Congress: Conflicting Values and Difficult Choices*, by Eugene H. Buck, M. Lynne Corn, Pervaze A. Sheikh, and Robert Meltz.

<sup>3</sup> For additional background, see CRS Report RL31654, *The Endangered Species Act: A Primer*, by M. Lynne Corn, Eugene H. Buck, and Pamela Baldwin.

<sup>4</sup> 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/>].

majority (609 species of animals and 744 species of plants) occur in the United States and its territories; the remainder occur only in other countries.<sup>5</sup> Of the 1,353 U.S. species, 1,163 (86.0%) are covered in recovery plans.<sup>6</sup> Of the U.S. species, 525 (38.8%) have designated critical habitat (CH) in some portion of their range.<sup>7</sup>

However, species don't exist in isolation, but evolve and fluctuate in abundance because of their relationships with other species. 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 interests, as well as one 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. 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.<sup>8</sup> 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.<sup>9</sup>

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

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<sup>5</sup> 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](http://www.iucn.org/en/news/archive/2007/09/12_pr_redlist.htm)].

<sup>6</sup> Daily updated statistics are available at [[http://ecos.fws.gov/tess\\_public/Boxscore.do](http://ecos.fws.gov/tess_public/Boxscore.do)].

<sup>7</sup> A list of species with designated CH is available at [[http://ecos.fws.gov/tess\\_public/CriticalHabitat.do?listings=0&nmfs=1](http://ecos.fws.gov/tess_public/CriticalHabitat.do?listings=0&nmfs=1)].

<sup>8</sup> 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>].

<sup>9</sup> 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.

protection, but whose protection is precluded by work to protect listed species. As of August 26, 2008, there were 283 species on the list of candidate species.<sup>10</sup>

**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.<sup>11</sup> 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. 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 August 26, 2008, FWS had designated CH for 38.8% of listed domestic species.

As a practical matter, CH has not been designated for most listed species largely because FWS prefers to allocate its limited 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.<sup>12</sup> 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.<sup>13</sup> On April 28, 2006, the Keystone Center's ESA Working Group on Habitat released a report on habitat protection and ESA.<sup>14</sup> One of the conclusions of participants in 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 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, or private (nonfederal) actors in actions with a federal nexus (i.e., actions that involve any federal funding, permit, or license).

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<sup>10</sup> The list of candidate species is available at [[http://ecos.fws.gov/tess\\_public/SpeciesReport.do?listingType=C](http://ecos.fws.gov/tess_public/SpeciesReport.do?listingType=C)].

<sup>11</sup> For additional background on CH, see CRS Report RS20263, *Designation of Critical Habitat under the Endangered Species Act (ESA)*, by Pamela Baldwin.

<sup>12</sup> *Sierra Club v. FWS*, 245 F. 3d 434 (5<sup>th</sup> Cir. 2001), cited with approval in *New Mexico Cattle Growers Ass'n v. FWS*, 248 F. 3d 1277 (10<sup>th</sup> Cir. 2001); *Gifford Pinchot Task Force v. FWS*, 378 F. 3d 1059 (9<sup>th</sup> Cir. 2004).

<sup>13</sup> See [<http://www.biologicaldiversity.org/swcbd/programs/policy/ch/bioscience2005.pdf>].

<sup>14</sup> Available at [[http://www.keystone.org/spp/documents/ESA%20Report%20FINAL%20%2025%2006%20\(2\).pdf](http://www.keystone.org/spp/documents/ESA%20Report%20FINAL%20%2025%2006%20(2).pdf)].

**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.<sup>15</sup> ESA provides civil and criminal penalties for violations.

**Permits and Consultation.** FWS or 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, 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.<sup>16</sup> To review the possible effects of their actions on listed species and CH, federal agencies must 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 must suggest 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*, 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 of ESA to allow the *incidental take* of species during otherwise lawful actions.<sup>17</sup> An applicant for a permit must 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).

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<sup>15</sup> See CRS Report 95-778, *Habitat Modification and the Endangered Species Act: The Sweet Home Decision*, by Pamela Baldwin.

<sup>16</sup> National Association of Home Builders v. Defenders of Wildlife, 127 S. Ct. 1258 (2007).

<sup>17</sup> For additional background on FWS’s permitting program, see [<http://www.fws.gov/endangered/pdfs/permits.pdf>].



On August 15, 2008, the Administration published regulations allowing federal action agencies to decide independently whether agency projects might harm ESA-listed species, eliminating project reviews by FWS and/or NMFS scientists.<sup>18</sup> Critics question this proposal, fearing that it could provide federal agencies, some with little scientific expertise, with an unacceptable degree of discretion in deciding whether or not to comply with ESA.<sup>19</sup> 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.

**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 (sometimes referred to as the “God Squad”) decides whether to allow a project to proceed despite likely harm to a species. 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 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 an exemption is necessary for national security (16 U.S.C. § 1536). 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. 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<sup>20</sup> 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 the ESA (and other laws) “to ensure expeditious construction of the barriers and roads” at the border.<sup>21</sup> Secretary Chertoff invoked this waiver for different portions of the Mexican border fence in 2005 and two times in 2007.

**Emergencies.** 50 C.F.R. Section 402.05 provides for ESA procedures in case of emergencies, basically requiring only very informal consultations during an emergency with more complete consultation after the emergency has passed. 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 ESA consultation with the Service.”

**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

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<sup>18</sup> 73 *Fed. Reg.* 47868-47875 (August 15, 2008).

<sup>19</sup> Juliet Eilperin, “Endangered Species Act Changes Give Agencies More Say,” *Washington Post*, August 12, 2008, p. A1.

<sup>20</sup> Division C of P.L. 104-208; 110 Stat. 3009-554.

<sup>21</sup> P.L. 109-13, 119 Stat. 231.

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. 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).

An April 2005 GAO study found that, although FWS spends almost half of its recovery funds on highest priority species, factors other than a species’ priority ranking (e.g., regional office workload, opportunities for partnerships to maximize scarce recovery funds), in practice, determine how funding is allocated.<sup>22</sup> GAO found that FWS does not have a process to routinely assess funding decisions to ensure that they are appropriate.

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.<sup>23</sup> 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 level of accountability for and enforcement of actions on private land would protect listed species comparable to what 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). 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. 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 authorized 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).

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<sup>22</sup> 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>].

<sup>23</sup> 73 *Fed. Reg.* 44761-44772.

## Major Provisions of International Law

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.<sup>24</sup> 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.<sup>25</sup>

Under CITES, the Conference of Parties (COP) convenes every two to three years. At these meetings, the parties vote on adopting amendments to Appendices I and II, review the progress of the Convention in meeting its goals, and make recommendations for improving CITES. The most recent COP was held in June 2007 in The Hague, Netherlands. Several decisions regarding the listing of species were discussed, including denying a proposal to review restrictions on whales, listing species of sawfish and European eel, denying listing proposals for some species of sharks and coral, approving some trade in ivory before a nine-year ban, and addressing tiger farming and illegal logging. The next COP will be held in Doha, Qatar, in 2010.

In the 110<sup>th</sup> Congress, the House Committee on Natural Resources held hearings on the effects of domestic and international illegal wildlife trade on endangered and threatened species. 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. The United States is considered one of the largest importers of illegal wildlife and wildlife products. CITES as well as the Lacey Act are considered two of the primary policy mechanisms that address the illegal wildlife trade. Some legislative proposals were introduced in the 110<sup>th</sup> Congress to address illegal wildlife trade. These measures centered on establishing a list of acceptable species that could enter the United States and increasing the enforcement capacity of FWS to address this illegal trade.<sup>26</sup>

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

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<sup>24</sup> For additional information on CITES, see [<http://www.cites.org/>].

<sup>25</sup> 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.

<sup>26</sup> For more information on illegal wildlife trade, see CRS Report RL34395, *International Illegal Trade in Wildlife: Threats and U.S. Policy*, by Liana S. Wyler and Pervaze A. Sheikh.

of gibbons). This fund supports conservation efforts benefitting these species, often in conjunction with efforts under CITES.<sup>27</sup>

In the 110<sup>th</sup> Congress, P.L. 110-132 reauthorized the African Elephant Conservation Act and the Rhinoceros and Tiger Conservation Act of 1994 through FY2012, and P.L. 110-133 reauthorized the Asian Elephant Conservation Act through FY2012. Other bills have been introduced to deal with international concerns:

- Several bills expand species eligible for assistance from the MSCF by creating a Great Cats Conservation Fund (H.R. 1913), a Great Cats and Rare Canids Conservation Fund (H.R. 1464 and S. 1033), and a Crane Conservation Fund (H.R. 1771 and S. 1048). On September 6, 2007, the House Natural Resources Subcommittee on Fisheries, Wildlife, and Oceans held a hearing on H.R. 1913, H.R. 1464, and H.R. 1771. On May 19, 2008, the House Committee on Natural Resources reported (amended) H.R. 1464 (H.Rept. 110-657); the House passed this bill (amended) on May 20, 2008. On September 24, 2008, the Senate Committee on Environment and Public Works reported (amended) H.R. 1464 (S.Rept. 110-492). On May 13, 2008, the House Committee on Natural Resources reported (amended) H.R. 1771 (H.Rept. 110-635); the House passed this bill (amended) on May 21, 2008. On September 24, 2008, the Senate Committee on Environment and Public Works reported H.R. 1771 (S.Rept. 110-493).
- H.R. 1497 amends the Lacey Act Amendments of 1981 to extend protection to plants illegally harvested outside of the United States; the bill was reported (amended) by the House Committee on Natural Resources on September 24, 2008 (H.Rept. 110-882).
- H.R. 4455 authorizes the Secretary of the Interior to provide international wildlife management and conservation programs through FWS's Wildlife Without Borders Program; on June 24, 2008, the House Natural Resources Subcommittee on Fisheries, Wildlife, and Oceans held a hearing on this bill.
- H.R. 5756 reauthorizes the Neotropical Migratory Bird Conservation Act.
- S.Res. 598 expresses the sense of the Senate regarding the need for the United States to lead international efforts to assist developing nations in preventing the extinction of a large portion of the world's plant and animal species; this measure was reported by the Senate Committee on Foreign Relations on September 23, 2008.
- H.R. 6862 reauthorizes the Marine Turtle Conservation Act of 2004 through FY2014.

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<sup>27</sup> For more information on the MSCF, see CRS Report RS21157, *Multinational Species Conservation Fund*, by Pervaze A. Sheikh and M. Lynne Corn.

## 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 seems a good starting point. In the 25 years since the ESA was enacted in 1973, 48 U.S. and foreign species or distinct population segments thereof have been delisted.<sup>28</sup> The reasons cited by FWS are (a) recovery (22 species); (b) extinction (9 species; however, some may have been extinct when listed); and (c) original data in error (17 species). Recovered species include alligators, Yellowstone grizzly bear, bald eagle, brown pelican, peregrine falcons (two subspecies), and three species of kangaroos. 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 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 17 species have been delisted as recovered.<sup>29</sup> 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, some scientific studies have demonstrated that most species are listed only after they become very depleted (e.g., median population of 407 animals for endangered vertebrates, according to one study), 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) 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.<sup>30</sup>

On May 17, 2005, the House Committee on Resources released an oversight report entitled *Implementation of the Endangered Species Act of 1973*.<sup>31</sup> 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 recovery has progressed related to the length of time since species were listed.

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<sup>28</sup> For updated information, see [[http://ecos.fws.gov/tess\\_public/DelistingReport.do](http://ecos.fws.gov/tess_public/DelistingReport.do)].

<sup>29</sup> Delisted species are identified at [[http://ecos.fws.gov/tess\\_public/DelistingReport.do](http://ecos.fws.gov/tess_public/DelistingReport.do)].

<sup>30</sup> See CRS Report 98-32, *Endangered Species Act List Revisions: A Summary of Delisting and Downlisting*, by Robert J. Noecker.

<sup>31</sup> Available at [[http://republicans.resourcescommittee.house.gov/archives/ii00/issues/more/esa/ESA\\_Implementation\\_Report5.17.05.pdf](http://republicans.resourcescommittee.house.gov/archives/ii00/issues/more/esa/ESA_Implementation_Report5.17.05.pdf)].

**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.

The Government Accountability Office (GAO) examined federal efforts to recover 31 selected species.<sup>32</sup> 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.

## The Endangered Species Act 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.<sup>33</sup>) Once listed, the argument would be made that sources of substantial greenhouse gas emissions, such as coal-fired powerplants, 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].” Additionally, federal agencies proposing to issue permits for the construction or

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<sup>32</sup> 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.

<sup>33</sup> 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.

modification of greenhouse gas sources would be required, the argument runs, to initiate Section 7 consultation.<sup>34</sup>

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 made abundantly clear its opposition to use of 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 ..." The effect of the exemption would appear 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 today's science 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). In addition, amendments to the consultation regulations proposed in August 2008 would make it even less likely that consultation would be triggered by GHG emissions.

In the 110<sup>th</sup> Congress, provisions in S. 317, S. 1177, and S. 1554 amend the Clean Air Act to provide funding for programs and projects conserving habitat for endangered species and species of conservation concern that are vulnerable to the impact of climate change. In addition, Section 402(e)(3)(C)(iv) of S. 1766; Section 7456(a)(2) of H.R. 3220/H.R. 3221; Section 4702 of S. 2191 and S. 3036; Section 114 of S. 2204; Section 106 of H.R. 2338; Subtitle G of H.R. 6186; Subtitle B, Part 2 of H.R. 6316; and Section 456 of H.R. 2337, as reported (amended) on August 3, 2007 (H.Rept. 110-296, Part I), allocate funds to the FWS endangered species programs and to related funds to assist species adaptation to climate change. The House passed H.R. 3221 (amended) on August 4, 2007; the Senate passed this measure (amended) on April 10, 2008, without the House-passed provisions relating to endangered species. On May 20, 2008, the Senate Committee on Environment and Public Works reported (amended) S. 2191 (S.Rept. 110-337). S. 3071 amends the ESA to temporarily prohibit the Secretary of the Interior from considering global climate change as a natural or manmade factor in determining whether a species is a threatened or endangered species.

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<sup>34</sup> 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.

## Issues in the 110<sup>th</sup> 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. Issues for the 110<sup>th</sup> Congress may include effects of ESA on private and federal land use, promotion of species recovery, agency use of scientific information, specific regional resource conflicts, and other matters. Below are descriptions of some of the issues that may be considered, either in oversight or legislation.

### Critical Habitat Designation

With limited exceptions, 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.<sup>35</sup> (See “Critical Habitat,” above.)

Section 15303 of P.L. 110-246, the Food, Conservation, and Energy Act of 2008, amended the Internal Revenue Code to permit the deduction of expenditures for endangered species recovery. The 110<sup>th</sup> Congress has considered several proposals to provide compensation to landowners who voluntarily provide habitat to threatened or endangered species:

- S. 700; H.R. 1422; S. 2223, as reported by the Senate Committee on Finance on October 24, 2007 (S.Rept. 110-205); Section 204 of S. 2242, as reported on October 25, 2007, by the Senate Committee on Finance (S.Rept. 110-206); and Section 12204 of H.R. 2419, as passed by the Senate on December 14, 2007, amend the Internal Revenue Code to provide a tax credit to individuals who enter into agreements to protect habitat for endangered and threatened species. This provision was deleted from H.R. 2419 in conference (H.Rept. 110-627).
- H.R. 1551, H.R. 1600, H.R. 2144, H.R. 2401, S. 919, and S. 1424 establish a priority for protecting and restoring habitat for federally or state-listed rare, threatened, endangered, and candidate species in various agricultural conservation programs.

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<sup>35</sup> For details on how legislation in the 109<sup>th</sup> Congress sought to address this issue, see CRS Report RL33468, *The Endangered Species Act (ESA) in the 109<sup>th</sup> Congress: Conflicting Values and Difficult Choices*, by Eugene H. Buck, M. Lynne Corn, Pervaze A. Sheikh, and Robert Meltz.



## “Sound Science” and ESA

ESA requires that determinations of species status be made “solely on the basis of the best scientific and commercial data available....”<sup>36</sup> 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, and Sonoran Desert bald eagles.<sup>37</sup> 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 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.

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*,” arguably dwindling species are to be given the benefit of the doubt and a margin of safety. This is the position taken on page 1-7 of the joint FWS/NMFS *Endangered Species Consultation Handbook*, which states that efforts should be made to develop information, but if a biological opinion 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.<sup>38</sup> This phrase is drawn from H.Rept. 96-697, p. 12 (1979), which states that the “best information available” language was intended to allow FWS to issue biological opinions even when information was incomplete, rather than being forced to issue negative opinions. The report also states that if a biological opinion is rendered on the basis of inadequate information, the federal agency proposing an action has the duty to show 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.”

In the 110<sup>th</sup> Congress, the House Committee on Natural Resources held an oversight hearing on May 9, 2007, on political influence and scientific integrity in ESA implementation.<sup>39</sup> In addition, several bills have been introduced:

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<sup>36</sup> 16 U.S.C. § 1533(b)(1)(A).

<sup>37</sup> See CRS Report RL32992, *The Endangered Species Act and “Sound Science,”* by Eugene H. Buck, M. Lynne Corn, and Pamela Baldwin.

<sup>38</sup> Available at [[http://www.nmfs.noaa.gov/pr/pdfs/laws/esa\\_section7\\_handbook.pdf](http://www.nmfs.noaa.gov/pr/pdfs/laws/esa_section7_handbook.pdf)].

<sup>39</sup> For more on this issue, see U.S. Government Accountability Office, *Endangered Species* (continued...)

- H.Res. 487 expresses the sense of the House recognizing the contributions of modeling and simulation technology; the House agreed to this measure on July 16, 2007.
- H.R. 3459 amends ESA to require FWS to publish a summary statement of the scientific basis for a listing or delisting decision or the designation of CH.

**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.<sup>40</sup> The Department of the Interior and FWS have both issued additional guidelines that are available through their websites,<sup>41</sup> and a process is established for interested persons to seek correction of information. Even before these latest guidelines, 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.<sup>42</sup> Under this policy, FWS and NMFS are to receive and use information from a wide variety of sources, including from 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...”

Additionally, a companion document, the Interagency Cooperative Policy for Peer Review in Endangered Species Act Activities,<sup>43</sup> 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 three specialists and summarize these in the record

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<sup>39</sup> (...continued)

*Act Decision Making*, GAO-08-688T, May 21, 2008, 66 p.

<sup>40</sup> *67 Fed. Reg.* 8452.

<sup>41</sup> For example, see [[http://www.fws.gov/stand/standards/process\\_WWW.html](http://www.fws.gov/stand/standards/process_WWW.html)].

<sup>42</sup> *59 Fed. Reg.* 34271, July 1, 1994.

<sup>43</sup> *59 Fed. Reg.* 34270, July 1, 1994.

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.**<sup>44</sup> Courts that have considered the “best data available” language have held that an agency is not obliged to conduct studies to obtain missing data,<sup>45</sup> but cannot ignore available biological information,<sup>46</sup> especially if the ignored information is the most current.<sup>47</sup> Nor may an agency treat one species differently from other similarly situated species,<sup>48</sup> nor 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.<sup>49</sup> “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.<sup>50</sup> 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*.”<sup>51</sup>

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.<sup>52</sup> In *Arizona Cattle Growers Association v. United States Fish and Wildlife Service*,<sup>53</sup> 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.<sup>54</sup>

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<sup>44</sup> For more information, see CRS Report RL32992, *The Endangered Species Act and “Sound Science,”* by Eugene H. Buck, M. Lynne Corn, Pamela Baldwin, and Kristina Alexander.

<sup>45</sup> *Southwest Center for Biological Diversity v. Babbitt*, 215 F. 3d 58 (D.C. Cir. 2000).

<sup>46</sup> *Connor v. Burford*, 848 F. 2d 1441 (9<sup>th</sup> Cir. 1988).

<sup>47</sup> *Southwest Center for Biological Diversity v. Babbitt*, 926 F. Supp. 920 (D.C. Ariz. 1996).

<sup>48</sup> *Id.*

<sup>49</sup> *Biodiversity Legal Foundation v. Babbitt*, 943 F. Supp. 23 (D. D.C. 1996).

<sup>50</sup> *Defenders of Wildlife v. Babbitt*, 958 F. Supp. 670, 679-680 (D. D.C. 1997).

<sup>51</sup> *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.

<sup>52</sup> 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.

<sup>53</sup> 273 F. 3d 1229 (9<sup>th</sup> Cir. 2001).

<sup>54</sup> *Pacific Coast Federation of Fishermen’s Associations, Inc. v. NMFS*, 265 F.3d 1028, 1034 (continued...)

## 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 at conserving 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 some of the situations that 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 issues 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 biological opinions (by FWS and NMFS) have been variously criticized and defended.<sup>55</sup> 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.<sup>56</sup> The parties to this proposed agreement have indicated that, if the agreement is finalized, they will seek legislative support from Congress.

**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

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<sup>54</sup> (...continued)  
(9<sup>th</sup> Cir. 2001).

<sup>55</sup> 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.

<sup>56</sup> See [<http://www.edsheets.com/Klamathdocs.html>].

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) biological opinions on operation of the Federal Columbia River Power System (FCRPS) 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 or not 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.<sup>57</sup> 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.<sup>58</sup>

Section 4073 of P.L. 110-114 required a feasibility study of fish passage improvements in Oregon. Several measures relating to salmon restoration have been introduced in the 110<sup>th</sup> Congress:

- H.R. 24, H.R. 4074, S. 27, and Title X of S. 3213 authorize the implementation of the San Joaquin River Restoration Settlement<sup>59</sup> providing for the reintroduction of chinook salmon; the House Natural Resources Subcommittee on Water and Power held a hearing on H.R. 24 on March 1, 2007, and the Senate Energy and Natural Resources Subcommittee on Water and Power held a hearing on S. 27 on May 3, 2007. On May 13, 2008, the House Committee on Natural Resources reported H.R. 4074 (H.Rept. 110-633). On June 25, 2008, the Senate Committee on Energy and Natural Resources reported (amended) S. 27 (S.Rept. 110-400).
- Section 103 of H.R. 860 and S. 493 designate salmon restoration areas in California.
- H.R. 1507 directs the Secretary of Commerce to seek scientific analysis of federal efforts to restore salmon and steelhead listed under the ESA.
- H.R. 1769 amends the Marine Mammal Protection Act to authorize the taking of California sea lions on the Columbia River to protect ESA-listed salmon; the House Natural Resources Subcommittee on

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<sup>57</sup> Trout Unlimited v. Lohn, No. CV06-0483-JCC, 2007 WL 1795036 (W.D. Wash. June 13, 2007).

<sup>58</sup> For details on how legislation in the 109<sup>th</sup> Congress proposed to address this issue, see CRS Report RL33468, *The Endangered Species Act (ESA) in the 109<sup>th</sup> Congress: Conflicting Values and Difficult Choices*, by Eugene H. Buck, M. Lynne Corn, Pervaze A. Sheikh, and Robert Meltz.

<sup>59</sup> For additional information on this settlement, see CRS Report RL34237, *San Joaquin River Restoration Settlement*, by Betsy A. Cody, et al.

Fisheries, Wildlife, and Oceans held a hearing on this bill on August 2, 2007.

- Section 127 of S. 1696, as reported by the Senate Committee on Appropriations (S.Rept. 110-91), would have directed the Department of the Interior to implement provisions identified in the NMFS and FWS Upper Snake River Basin Biological Opinions, regardless of court ruling. This provision was not retained in P.L. 110-161, the Consolidated Appropriations Act, 2008.
- S. 3608 establishes a Salmon Stronghold Partnership program to protect wild Pacific salmon.

**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, species abundance has declined to the lowest ever observed. The Delta smelt decline is potentially attributed to a combination of several factors, including entrainment in water export pumps, competition and predation from exotic fish species, toxic contaminants, changes in habitat size and quality, and changes in food supply.<sup>60</sup> 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.<sup>61</sup>

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 biological opinion (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

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<sup>60</sup> 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*, 2<sup>nd</sup> Sess. 110<sup>th</sup> Congress, January 29, 2008.

<sup>61</sup> 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: 2007 Synthesis of Results*, at [[http://www.fws.gov/sacramento/es/documents/POD\\_report\\_2007.pdf](http://www.fws.gov/sacramento/es/documents/POD_report_2007.pdf)].

smelt.<sup>62</sup> 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.<sup>63</sup>

In the 110<sup>th</sup> Congress, the House Natural Resources Subcommittee on Water and Power held an oversight field hearing in Vallejo, CA, on July 2, 2007, on issues related to the status of native fish populations, including Delta smelt, in the Bay-Delta ecosystem. H.R. 6940 authorizes support for the establishment of a fish hatchery program for Delta smelt in the Sacramento-San Joaquin Delta and temporarily exempts 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.<sup>64</sup> Under the regulations, when EPA takes action under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA; P.L. 80-104; 7 U.S.C. §§ 136, et seq.), EPA would decide whether a proposed FIFRA action is likely to adversely affect a listed species or critical habitat. EPA would make this determination without consultation with, and written concurrence from, the FWS Director, if an alternative consultation agreement is executed. FWS would 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 by excusing federal action agencies from engaging in consultation.<sup>65</sup> 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.<sup>66</sup> The alternative consultation process contained in these counterpart regulations eliminates the need to conduct informal consultation with

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<sup>62</sup> NRDC v. Kempthorne, 506 F. Supp. 2d 322 (E.D. Cal. 2007).

<sup>63</sup> NRDC v. Kempthorne, 2007 U.S. Dist. LEXIS 91968 (E.D. Cal. December 14, 2007).

<sup>64</sup> 69 Fed. Reg. 47732 (August 5, 2004); 50 C.F.R. Part 402, Subpart D.

<sup>65</sup> 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>].

<sup>66</sup> 68 Fed. Reg. 68254 (December 8, 2003); 50 C.F.R. Part 402, Subpart C.

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 was not an improper bypass of ESA Section 7.<sup>67</sup> 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 ten projects reviewed by NMFS were deficient in five or six criteria, and 44 out of 50 projects reviewed by FWS missed at least one of six criteria, with 19 missing all six.<sup>68</sup>

## Private Property and Fifth Amendment Takings

The presence of endangered species on private property is sometimes welcomed by owners. Builders, for example, have been known to market a new residential development in part on the basis of the wildlife present on undeveloped parts of the tract. Still, 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. 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.<sup>69</sup> Although 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.

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<sup>67</sup> *Defenders of Wildlife v. Kempthorne*, No. 04-1230, 2006 WL 2844232 (D.D.C. September 29, 2006).

<sup>68</sup> 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>].

<sup>69</sup> 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.



More than a dozen court decisions have addressed takings challenges to ESA restrictions on land or other property, with all but one 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 resulting in 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. In the one decision favoring the property owner, ESA-related cutbacks in water delivered by a state reclamation project to water districts were held a taking by the United States of state-contract-created water rights.<sup>70</sup> This decision has been questioned in other court rulings, and the judge who decided it largely repudiated its reasoning in a later decision.<sup>71</sup>

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

The 110<sup>th</sup> Congress enacted P.L. 110-229, including Section 515 authorizing the Secretary of the Interior to participate in the Platte River Recovery Implementation Program for Endangered Species in the Central and Lower Platte River Basin. On May 1, 2007, the Senate agreed to S.Res. 125, designating May 18, 2007, as “Endangered Species Day.” On this same date, the Senate also agreed to S.Res. 146 supporting the goals of June 20, 2007, as “American Eagle Day,” to celebrate the recovery and restoration of the American bald eagle; the House agreed to similar language (H.Res. 341) on June 5, 2007. On June 18, 2008, the House agreed to H.Res. 1247, supporting the goals and ideals of “American Eagle Day.” The 110<sup>th</sup> Congress has considered a variety of additional ESA issues, although none has been enacted into law:

- Section 901 of S. 1892 requires a Coast Guard report on efforts taken from FY2000 through 2007 to protect endangered sea turtles

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<sup>70</sup> Tulare Lake Basin Water Storage Dist. v. United States, 49 Fed. Cl. 313 (2001). See CRS Report RL31796, *The Endangered Species Act and Claims of Property Rights “Takings,”* by Robert Meltz; and CRS Congressional Distribution Memorandum, *The ‘Tulare Lake’ Decision’s Implications for Use of Bureau of Reclamation Project Water,* by Pamela Baldwin and Robert Meltz, available from [rmeltz@crs.loc.gov].

<sup>71</sup> Casitas Municipal Water Dist. v. United States, 76 Fed. Cl. 100 (2007).

and marine mammals; the Senate Committee on Commerce, Science, and Transportation reported (amended) this measure on February 5, 2008 (S.Rept. 110-261).

- On January 17, 2008, the House Select Committee on Energy Independence and Global Warming held a hearing on the delay by U.S. Fish and Wildlife Service in announcing their decision on whether to list polar bears as threatened.<sup>72</sup> H.R. 5058, H.R. 5588, and S. 2568 prohibit the Secretary of the Interior from leasing any tract in the Chukchi Sea Lease Sale 193 off Alaska until the Secretary determines whether to list the polar bear as a threatened or endangered species. On January 30, 2008, the Senate Committee on Environment and Public Works held an oversight hearing to examine threats to and protection for polar bear. On April 2, 2008, the Senate Committee on Environment and Public Works held an oversight hearing on the listing decision for polar bear under ESA. H.R. 6057 amends the Outer Continental Shelf Lands Act to prohibit oil and gas leasing and related activities in the Beaufort and Chukchi Sea Planning Areas unless certain conditions are met. H.R. 6936 amends the Marine Mammal Protection Act (MMPA) to allow importing polar bear trophies taken in Canadian sport hunts before the polar bear was listed as a threatened species. H.R. 7171 amends the MMPA to allow the importation of polar bear trophies taken in sport hunts in Canada.
- H.R. 1917 amends the ESA to enable federal agencies to rescue and relocate threatened or endangered species in certain circumstances where flood control levees are reconstructed, maintained, or repaired; the House Committee on Natural Resources held a hearing on this measure on April 24, 2007.
- S. 658 amends the ESA to modify the processes for species listing and delisting as well as recovery planning.
- The Senate Committee on Environment and Public Works held an oversight field hearing on ESA impacts on the gas industry on August 23, 2007.
- S. 424 directs the U.S. Army Corps of Engineers to implement the Penobscot River Restoration Project, benefitting endangered Atlantic salmon and shortnose sturgeon.
- H.R. 2530 requires certain electricity consumers to be informed of ESA compliance costs.
- H.R. 3156 and S. 1860 modify how certain endangered species offenses might be prosecuted.
- H.R. 3639 establishes a research program for recovery of the southern sea otter.
- H.R. 3847 and S. 2165 amend the ESA to provide for suspension of ESA provisions during droughts for federal and state agencies that manage river basins within regions affected by drought.

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<sup>72</sup> For additional information, see CRS Report RL33941, *Polar Bears: Listing Under the Endangered Species Act*, by Eugene H. Buck, M. Lynne Corn, and Kristina Alexander.

- S.Res. 456 directs the United States to undertake bilateral discussions with Canada to negotiate an agreement to conserve endangered large whales that migrate along the Atlantic coast. S. 2657 and H.R. 5536 require the Secretary of Commerce to prescribe regulations to reduce the incidence of vessels colliding with North Atlantic right whales by limiting vessel speed. On July 22, 2008, the Senate Committee on Commerce, Science, and Transportation reported (amended) S. 2657 (S.Rept. 110-429).
- S.Res. 520 designates May 16, 2008, as “Endangered Species Day.”
- S.Res. 583 designates June 20, 2008, as “American Eagle Day,” to celebrate the recovery and restoration of the bald eagle.
- S. 3189 and H.R. 7169 amend P.L. 106-392 to extend the authorizations for the Upper Colorado and San Juan River Basin endangered fish recovery programs; S. 3189 was reported (amended) by the Senate Committee on Energy and Natural Resources on September 16, 2008.
- H.R. 7032, Section 33 of H.R. 6428, and Section 238 of H.R. 6779 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. President Bush signed P.L. 110-161 (H.R. 2764, the Consolidated Appropriations Act, 2008) into law, providing more than \$236 million for FWS’s ESA and related programs.

On February 4, 2008, the Bush Administration released its FY2009 budget request, including more than \$230 million for ESA-related programs withing FWS. The FY2009 request for ESA program funding for FWS under their Ecological Services Account is \$3.67 million (2.44%) less than funding enacted for FY2008. Species and programs to receive decreased funding include the following:

Pacific salmon recovery grants:	-\$1,477,000
General consultation:	-\$984,000
Idaho sage grouse:	-\$246,000
Wolf monitoring:	-\$246,000
Lahontan cutthroat trout:	-\$246,000
Condor recovery:	-\$246,000

Under the Administration’s proposal, total FWS funding for all ESA-related programs would decrease by about \$6.09 million (2.57%) from that enacted for FY2008.

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

(\$ in thousands)

	<b>FY2006 Enacted</b>	<b>FY2007 Request</b>	<b>FY2007 Enacted</b>	<b>FY2008 Request</b>	<b>FY2008 Enacted</b>	<b>FY2009 Request</b>
<b>Endangered Species Program</b>						
Candidate Conservation	8,619	8,063	8,425	8,635	9,731	8,659
Listing	17,630	17,759	17,824	18,263	17,978	18,188
Consultation	47,997	49,337	49,179	51,578	51,758	51,577
Recovery	73,562	65,879	69,551	68,067	71,041	68,417
<i>Subtotal</i>	<i>147,808</i>	<i>141,038</i>	<i>144,979</i>	<i>146,543</i>	<i>150,508</i>	<i>146,841</i>
<b>Related programs</b>						
Landowner Incentive	21,667	24,400	23,667	0	0	0
Stewardship Grants	7,277	9,400	7,277	0	0	0
Cooperative Endangered Species Fund <sup>a</sup>	80,001	80,001	81,001	80,001	73,831	75,501
Multinational Species Fund <sup>b</sup>	6,404	8,217	6,404	4,257	7,875	4,256
Neotropical Bird Fund <sup>b</sup>	3,941	0	3,941	3,960	4,430	3,960
<b>Total FWS</b>	<b>267,098</b>	<b>263,056</b>	<b>266,962</b>	<b>234,761</b>	<b>236,644</b>	<b>230,558</b>

**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, the Administration requested all \$80.001 million from LWCF and the Omnibus provided \$49.773 from the LWCF.
- b. From FY2002 through FY2007, the President's budget proposed subsuming the Neotropical Migratory Bird Fund within the Multinational Species Conservation Fund; Congress rejected this proposal.