



# **Fishery, Aquaculture, and Marine Mammal Issues in the 111<sup>th</sup> Congress**

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## Summary

Fish and marine mammals are important resources in open ocean and nearshore coastal areas; many federal laws and regulations guide their management as well as the management of their habitat.

Commercial and sport fishing are jointly managed by the federal government and individual states. States generally have jurisdiction within 3 miles of the coast. Beyond state jurisdiction and out to 200 miles, the federal government manages fisheries under the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) through eight regional fishery management councils. Beyond 200 miles, the United States participates in international agreements relating to specific areas or species. The 111<sup>th</sup> Congress may oversee implementation of the MSFCMA as well as address individual habitat and management concerns for U.S. commercial and sport fisheries to achieve a sustainable balance between resource use and protection. Current concerns include whether additional effort should be taken to eliminate overfishing, how fishery disaster assistance should be funded, and whether to more aggressively encourage fishing vessel capacity reduction and limited access privilege programs. The 111<sup>th</sup> Congress has enacted P.L. 111-5, including language to broaden the basis for determining import increases for trade adjustment assistance for fishing and aquaculture to include wild-caught fish and seafood in addition to farm-raised fish and seafood. In addition, P.L. 111-11 authorized implementation of the San Joaquin River Restoration Settlement providing for the reintroduction of Chinook salmon; extended the authorizations for the Upper Colorado and San Juan River Basin endangered fish recovery programs through FY2023; directed the Secretary of Commerce to establish an ocean acidification program within NOAA, and to establish an interagency committee to develop an ocean acidification research and monitoring plan; and reauthorized (through FY2015) and amend the Fisheries Restoration and Irrigation Mitigation Act of 2000.

Aquaculture—the farming of fish, shellfish, and other aquatic animals and plants in a controlled environment—is expanding rapidly abroad, with more modest growth in the United States. In the United States, important species cultured include catfish, salmon, shellfish, and trout. The 111<sup>th</sup> Congress has enacted P.L. 111-5, including language (1) providing as much as \$50 million in total assistance to aquaculture producers for losses associated with high feed input costs during the 2008 calendar year and (2) including National Fish Hatcheries as eligible for \$165 million in resource management funding as well as \$115 million in construction funding for the U.S. Fish and Wildlife Service.

Marine mammals are protected under the Marine Mammal Protection Act (MMPA). With few exceptions, the MMPA prohibits harm or harassment (“take”) of marine mammals, unless restrictive permits are obtained. It also addresses specific situations of concern, such as dolphin mortality, primarily associated with the eastern tropical Pacific tuna fishery. The 111<sup>th</sup> Congress may consider bills to reauthorize and amend the MMPA as well as measures to address specific marine mammal habitat and management concerns, such as how to deal with the effects of increasing noise in the ocean.

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## Most Recent Developments

On September 22, 2010, the House agreed to H.Res. 1503, expressing support for the objectives of “National Estuaries Day” (September 25, 2010). On September 22, 2010, the House Foreign Affairs Subcommittee on Asia, the Pacific, and the Global Environment held an oversight hearing on renegotiating the South Pacific tuna treaty. On September 20, 2010, the Senate Committee on Environment and Public Works reported S. 3119 (amended), including a provision authorizing aquaculture of suspension-feeding shellfish or algae for a nutrient bioextraction pilot project in Long Island Sound. On September 20, 2010, the Senate Committee on Commerce, Science, and Transportation reported (1) S. 1252 (amended), amending and reauthorizing the Oceans and Human Health Act through FY2014, and (2) S. 2871, making technical corrections to the Western and Central Pacific Fisheries Convention Implementation Act and the Pacific Whiting Act of 2006. On September 16, 2010, the Senate Committee on Environment and Public Works reported H.R. 4715 (amended), including a provision amending the National Estuary Program to promote research on monitoring of pathways and ecosystems to track the introduction and establishment of nonnative species. (Members and staff may request e-mail notification of new CRS reports on marine and freshwater fisheries, aquaculture, and marine mammal issues by contacting Gene Buck at [gbuck@crs.loc.gov](mailto:gbuck@crs.loc.gov) and requesting to be added to the notification list.)

## Introduction

Increasing use of coastal and marine resources is driving proposals for Congress and the Administration to alter current relationships between environmental protection and sustainable resource management. Recent reports note declines in marine resources and shortcomings in what are perceived as fragmented and limited approaches to resource protection and management in federal and state waters.<sup>1</sup> A further concern is the increasing pressures and conflicts that arise from economic activity associated with continued human population growth in coastal areas. A common concern is habitat loss or alteration, due both to natural processes, such as climate variation, and to development, changes in land management practices, competition from invasive species, and other factors, nearly all related to economic, political, or social interests. Congress faces the issue of how to balance these diverse interests (which may fall on various sides of any given controversy) while promoting the sustainable management of fishery and other marine resources and protection of the marine environment.

Congress last reauthorized and extensively amended the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) in the 109<sup>th</sup> Congress (P.L. 109-479); the current funding authorization expires on September 30, 2013. The Marine Mammal Protection Act was last reauthorized in 1994 by P.L. 103-238, and funding authorization expired on September 30, 1999. The 111<sup>th</sup> Congress may consider measures to reauthorize the MMPA, address aquatic habitat concerns, provide funding for disaster assistance, and address fishery-specific concerns, as well as conducting oversight of MSFCMA implementation.

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<sup>1</sup> For example, see *America's Living Oceans: Charting a Course for Sea Change*, available at [http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/Reports/Protecting\\_ocean\\_life/env\\_pew\\_oceans\\_final\\_report.pdf](http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/Reports/Protecting_ocean_life/env_pew_oceans_final_report.pdf), and *An Ocean Blueprint for the 21<sup>st</sup> Century*, available at [http://www.oceancommission.gov/documents/full\\_color\\_rpt/000\\_ocean\\_full\\_report.pdf](http://www.oceancommission.gov/documents/full_color_rpt/000_ocean_full_report.pdf).

# Commercial and Sport Fisheries

## Background

Historically, coastal states managed marine sport and commercial fisheries in nearshore waters, where most seafood was caught. However, as fishing techniques improved, fishermen ventured farther offshore. Before 1950, the federal government assumed limited responsibility for marine fisheries, responding primarily to international fishery concerns and treaties (by enacting implementing legislation for treaties, e.g., the Northern Pacific Halibut Act in 1937) as well as to interstate fishery conflicts (by consenting to interstate fishery compacts, e.g., the Pacific Marine Fisheries Compact in 1947). In the late 1940s and early 1950s, several Latin American nations proclaimed marine jurisdictions extending 200 miles or further offshore. This action was denounced by those within the United States and other distant-water fishing nations who sought to preserve access for far-ranging fishing vessels. Beginning in the 1950s (Atlantic) and 1960s (Pacific), increasing numbers of foreign fishing vessels steamed into U.S. offshore waters to catch the substantially unexploited seafood resources. Since the United States then claimed only a 3-mile jurisdiction (in 1964, P.L. 88-308 prohibited fishing by foreign-flag vessels within 3 miles of the coast; in 1966, P.L. 89-658 proclaimed an expanded 12-mile exclusive U.S. fishery jurisdiction), foreign vessels could fish many of the same stocks caught by U.S. fishermen. U.S. fishermen deplored this “foreign encroachment” and alleged that overfishing was causing stress on, or outright depletion of, fish stocks. Protracted Law of the Sea Treaty<sup>2</sup> negotiations in the early and mid-1970s as well as actions by other coastal nations provided impetus for unilateral U.S. action.

The enactment of the Fishery Conservation and Management Act (FCMA); later renamed the Magnuson Fishery Conservation and Management Act and more recently the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA; 16 U.S.C. §§ 1801 et seq.), ushered in a new era of federal marine fishery management. The FCMA was signed into law on April 13, 1976, after several years of debate. On March 1, 1977, marine fishery resources within 200 miles of all U.S. coasts, but outside state jurisdiction, came under federal jurisdiction, and an entirely new multifaceted regional management system began allocating fishing rights, with priority given to domestic enterprise.

Primary federal management authority was vested in the National Marine Fisheries Service (NMFS, also popularly referred to as NOAA Fisheries) within the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce.<sup>3</sup> The 200-mile fishery conservation zone was superseded by a 200-mile Exclusive Economic Zone (EEZ), proclaimed by President Reagan on March 10, 1983 (Presidential Proclamation 5030).

Eight Regional Fishery Management Councils were created by the FCMA.<sup>4</sup> Council members are appointed by the Secretary of Commerce from lists of candidates knowledgeable about fishery resources, provided by coastal state governors.<sup>5</sup> The councils prepare fishery management plans

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<sup>2</sup> The United Nations Convention on the Law of the Sea was reported favorably in the 110<sup>th</sup> Congress by the Senate Committee on Foreign Relations (S.Exec.Rept. 110-9) on December 19, 2007.

<sup>3</sup> NMFS programs are described in detail at <http://www.nmfs.noaa.gov/>.

<sup>4</sup> Links to individual council websites are available at <http://www.nmfs.noaa.gov/councils/>.

<sup>5</sup> For the 2007 report to Congress on council membership, see [http://www.nmfs.noaa.gov/sfa/reg\\_svcs/Council\\_Reporttocongress/07\\_RptCongress.pdf](http://www.nmfs.noaa.gov/sfa/reg_svcs/Council_Reporttocongress/07_RptCongress.pdf).

(FMPs) for those fisheries that they determine require active federal management. After public hearings, revised FMPs are submitted to the Secretary of Commerce for approval. Approved plans are implemented through regulations published in the *Federal Register*. Together these councils and NMFS have developed and implemented 40 FMPs for various fish and shellfish resources, with 9 additional plans in various stages of development. Some plans are created for an individual species or a few related ones (e.g., FMPs for red drum by the South Atlantic Council and for shrimp by the Gulf of Mexico Council). Others are developed for larger species assemblages inhabiting similar habitats (e.g., FMPs for Gulf of Alaska groundfish by the North Pacific Council and for reef fish by the Gulf of Mexico Council). Many of the implemented plans have been amended (one over 30 times), and three have been developed and implemented jointly by two or more councils. The MSFCMA was reauthorized in the final hours of the 109<sup>th</sup> Congress by P.L. 109-479, the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006.<sup>6</sup> The authorization of appropriations in Section 7 of the act expires at the end of FY2013.

Today, individual states manage marine fisheries in inshore and coastal waters, generally within 3 miles of the coast. Interstate coordination occurs through three regional (Atlantic, Gulf, and Pacific) interstate marine fishery commissions, created by congressionally approved compacts. Beyond state waters, out to 200 miles, the federal government manages fish and shellfish resources for which FMPs have been developed under the MSFCMA. Individual states manage fishermen operating state-registered vessels under state regulations consistent with any existing federal FMP when fishing in inshore state waters and, in the absence of a federal FMP, wherever they fish.

Under initial FCMA authority, a substantial portion of the fish catch from federal offshore waters was allocated to foreign fishing fleets. However, the 1980 American Fisheries Promotion Act (Title II of P.L. 96-561) and other FCMA amendments orchestrated a decrease in foreign catch allocations as domestic fishing and processing industries expanded. Foreign catch from the U.S. EEZ declined from about 3.8 billion pounds in 1977 to zero since 1992. Commensurate with the decline of foreign catch, domestic offshore catch in federal EEZ waters increased dramatically, from about 1.6 billion pounds (1977) to more than 6.3 billion pounds in 1986-1988.<sup>7</sup> Since this peak, annual landings have hovered around 6 billion pounds (**Figure 1**).

In 2009, U.S. commercial fishermen landed slightly more than 6.0 billion pounds of edible, unprocessed fish and shellfish from combined state, federal, and international waters, worth more than \$3.7 billion at the dock.<sup>8</sup> Imports of mostly processed products supplied 5.2 billion pounds, worth \$13.1 billion. U.S. consumers spent an estimated \$75.5 billion on edible seafood in 2009, with \$50.3 billion of that amount spent in restaurants and other food service establishments. In addition, marine recreational anglers caught an estimated 391 million fish in 2009, of which the

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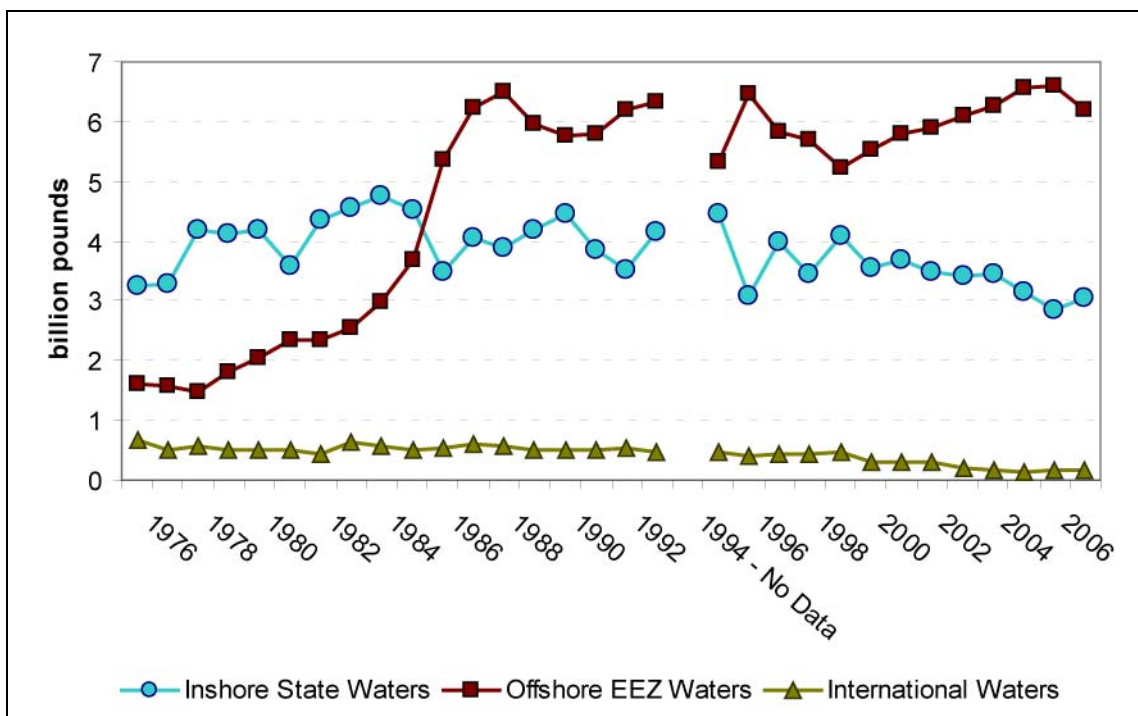
<sup>6</sup> A detailed summary of the Sustainable Fisheries Act, including an explanation of issues and legislative history, can be found at <http://www.nmfs.noaa.gov/sfa/sfaguide/>.

<sup>7</sup> This total includes both landings for human food and landings for industrial purposes, e.g., bait and animal food, reduction to meal and oil, etc.

<sup>8</sup> For additional domestic commercial fishery harvest statistics, see <http://www.st.nmfs.noaa.gov/st1/commercial/index.html>. Statistics for 2009 are available at [http://www.st.nmfs.noaa.gov/st1/fus/fus09/fus\\_2009.pdf](http://www.st.nmfs.noaa.gov/st1/fus/fus09/fus_2009.pdf).

retained catch was about 212 million pounds.<sup>9</sup> In 2006, a nationwide survey estimated that recreational anglers spent more than \$40 billion each year pursuing their sport.<sup>10</sup>

**Figure I. U.S. Commercial Fish and Shellfish Harvest, 1976-2007**



**Source:** NMFS, *Fisheries of the United States* (various years), Current Fishery Statistics series.

NMFS reports annually on the status of fish stocks managed under the MSFCMA.<sup>11</sup> For 2009, NMFS made determinations for 250 fish stocks and complexes,<sup>12</sup> finding that 38 (15%) of them were subject to overfishing<sup>13</sup> and 212 (85%) were not. In addition, NMFS made determinations for 203 stocks and complexes, finding that 46 (23%) were overfished<sup>14</sup> and 157 (77%) were not. These numbers reflect a slight decline in the overfishing percentage compared to 2008 (when 16% were subject to overfishing) as well as a stable overfished percentage compared to that year (when 23% were overfished).

In addition, NMFS developed a Fish Stock Sustainability Index (FSSI) in 2005 as a performance measure to evaluate progress nationwide in addressing overfishing.<sup>15</sup> Out of a possible maximum

<sup>9</sup> Recreational fishing programs at NMFS are discussed at <http://www.st.nmfs.gov/st1/recreational/index.html>.

<sup>10</sup> Results of the 2006 survey can be found at [http://library.fws.gov/pubs/nat\\_survey2006\\_final.pdf](http://library.fws.gov/pubs/nat_survey2006_final.pdf).

<sup>11</sup> See [http://www.nmfs.noaa.gov/sfa/statusoffisheries/sos\\_full28\\_press.pdf](http://www.nmfs.noaa.gov/sfa/statusoffisheries/sos_full28_press.pdf).

<sup>12</sup> NMFS reviewed 522 individual stocks and stock complexes but had insufficient information to make determinations on all of them.

<sup>13</sup> A stock that is subject to overfishing has a fishing mortality (harvest) rate above the level that provides for the maximum sustainable yield.

<sup>14</sup> A stock that is overfished has a biomass level below a biological threshold specified in its fishery management plan.

<sup>15</sup> FSSI is a performance measure for the sustainability of 230 fish stocks selected for their importance to commercial and recreational fisheries. The FSSI will increase as overfishing ends and stocks rebuild to the level that provides maximum sustainable yield. FSSI is calculated by assigning a score for each fish stock based on rules available at (continued...)

FSSI of 920, this index of success in curbing overfishing has increased from 481.5 (third quarter of calendar year 2005) to 580.5 (second quarter of calendar year 2010).

## **Magnuson-Stevens Act**

The MSFCMA was reauthorized in the 109<sup>th</sup> Congress in 2006 by P.L. 109-479, the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006.<sup>16</sup> Some of the major issues addressed by this comprehensive measure included

- modifying requirements for the appointment and training of members of regional councils as well as the conduct of business by regional council committees and panels to enhance transparency of the regional council process;
- setting a firm deadline to end overfishing by 2011 and modifying how depleted fisheries are to be rebuilt;
- increasing the consideration of economic and social impacts in fishery management;
- modifying research programs and improving data collection and management;
- increasing protection for deep sea corals and bottom habitat;
- implementing a pilot program of ecosystem-based management;
- promoting new gear technologies to further reduce bycatch;
- establishing national guidelines for individual fishing quota (limited access privilege) programs;
- modifying regional council fishery management plan procedures, including better coordinating environmental review under the National Environmental Policy Act (NEPA; 42 U.S.C. §§ 4321, et seq.); and
- strengthening the role of science in fishery management decision-making.<sup>17</sup>

## **Implementation of P.L. 109-479**

NMFS has summarized various tasks associated with implementing P.L. 109-479.<sup>18</sup> On January 13, 2009, NMFS released its first report to Congress on implementing Title IV of P.L. 109-479, relating to better control of illegal, unreported, and unregulated (IUU) fishing activities.<sup>19</sup> On January 15, 2009, NMFS issued final guidance amending the guidelines for National Standard 1,

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(...continued)

[http://www.nmfs.noaa.gov/sfa/statusoffisheries/2010/second/q2\\_2010\\_fssi\\_summary\\_changes.pdf](http://www.nmfs.noaa.gov/sfa/statusoffisheries/2010/second/q2_2010_fssi_summary_changes.pdf).

<sup>16</sup> For additional summary information on this measure, see <http://www.nmfs.noaa.gov/msa2005/MSA%202006%20Implementation%20Overview.pdf>.

<sup>17</sup> For additional highlights and commentary on this enactment, see <http://cbbulletin.com/Free/199763.aspx>; a detailed summary of enacted provisions is available at <http://www.olemiss.edu/orgs/SGLC/National/Magnuson.pdf>.

<sup>18</sup> Available at [http://www.nmfs.noaa.gov/msa2007/Reauthorization\\_tasks.pdf](http://www.nmfs.noaa.gov/msa2007/Reauthorization_tasks.pdf). Additional information on NMFS's implementation of P.L. 109-479 can be found at <http://www.nmfs.noaa.gov/msa2007/>.

<sup>19</sup> Available at [http://www.nmfs.noaa.gov/msa2007/docs/biennial\\_report011309.pdf](http://www.nmfs.noaa.gov/msa2007/docs/biennial_report011309.pdf).

designed to end overfishing in response to provisions in P.L. 109-479 providing new requirements for annual catch limits and other accountability measures.<sup>20</sup>

### **Action in the 111<sup>th</sup> Congress**

On October 27, 2009, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held an oversight hearing on implementation of the MSFCMA. The House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held two hearings on catch shares (1) as a fishery management option (March 16, 2010) and (2) regarding the community perspective (April 22, 2010). In addition, the 111<sup>th</sup> Congress is considered several bills that amend the MSFCMA:

- H.R. 1584 and S. 1255 amend the MSFCMA to extend the authorized time period for rebuilding certain overfished populations. S. 2856 and H.R. 4369 allow the United States-Canada Transboundary Resource Sharing Understanding to be considered an international agreement for the purposes of Section 304(e)(4) of the MSFCMA, creating an exemption and allowing federal fisheries managers to extend stock rebuilding deadlines for New England groundfish and scallop fisheries covered under the bilateral agreement. On May 24, 2010, the Senate Committee on Commerce Science, and Transportation reported (amended) S. 2856 (S.Rept. 111-194). S. 3594 amends the MSFCMA to (1) modify conditions under which certain fish may be harvested in a multispecies fishery where other species are overfished, (2) establish an economic assistance program for recreational and commercial fishery participants, fishing industries, and fishing communities significantly affected by a prohibition on the retention of stocks to end or prevent overfishing or rebuild overfished stocks, (3) clarify emergency authority, and (4) require additional fishery studies and reports.
- S. 1124, Section 605 of S. 1194, Section 2 of H.R. 2652, and Section 802 of H.R. 3619 amend the American Fisheries Act to modify provisions for vessel rebuilding and replacement, vessel exemptions, and fishery cooperative exemption provisions. On December 3, 2009, the House Committee on Transportation and Infrastructure reported (amended) H.R. 2652 (H.Rept. 111-351). On October 30, 2009, the Senate Committee on Commerce, Science, and Transportation reported (amended) S. 1194 (S.Rept. 111-95). On October 16, 2009, the House Committee on Transportation and Infrastructure reported (amended) H.R. 3619 (H.Rept. 111-303, Part I); and the House passed this measure (amended) on October 23, 2009. On May 7, 2010, the Senate passed H.R. 3619, after amending this measure to substitute the language of S. 1124, as reported.
- H.R. 3307 and S. 3046 direct the Secretary of Commerce to study the South Atlantic red snapper fishery and limit the Secretary's authority to promulgate any interim rule that prohibits fishing in this fishery. H.R. 4723 and S. 3045 direct the Secretary of Commerce to study the Gulf of Mexico red snapper fishery and limit the Secretary's authority to promulgate any interim rule that prohibits fishing in this fishery.

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<sup>20</sup> 74 *Federal Register* 3178-3213, January 16, 2009.

- Section 704 of H.R. 3534 prohibits regional fishery management councils from implementing offshore aquaculture through fishery management plans and their amendments and invalidates any such action already taken. On September 16-17, 2009, and June 30, 2010, the House Committee on Natural Resources held hearings on this measure. On July 28, 2010, the House Committee on Natural Resources reported (amended) this measure (H.Rept. 111-575). The House passed this measure on July 30, 2010, after amending this bill to remove the aquaculture provision.
- H.R. 81 and S. 850 amend the MSFCMA to modify language related to prohibiting shark finning; the House passed H.R. 81 on March 2, 2009. On February 4, 2010, the Senate Committee on Commerce, Science, and Transportation reported (amended) S. 850 (S.Rept. 111-124).
- S. 1609 and H.R. 3910 authorize a single fisheries cooperative for the Bering Sea Aleutian Islands longline catcher processor subsector for Pacific cod. On July 27, 2010, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on H.R. 3910. On August 5, 2010, the Senate Committee on Commerce, Science, and Transportation reported S. 1609 (S.Rept. 111-250).
- H.R. 4634 limits the authority of the Secretary of Commerce to implement certain fishery closures unless the Secretary certifies that closure is the only option available for maintaining a fishery at a sustainable level.
- H.R. 5668 amends the MSFCMA to require the use of sums received as fines, penalties, and forfeitures of property for violations of that act or other marine resource laws to be used to reduce the federal deficit and debt. H.R. 6075 amends the MSFCMA to require payment of costs, fees, and expenses incurred by prevailing parties in proceedings under the MSFCMA from sums received as fines, penalties, and forfeitures.
- H.R. 5155 prohibits the Secretary of Commerce from regulating incidental fisheries bycatch until a report on aerial assessment of sea turtle populations is submitted to Congress.
- S. 918/H.R. 3270 amend the MSFCMA to add New York to the New England Fishery Management Council.
- H.R. 1379 prohibits the commercial harvesting of Atlantic striped bass in coastal waters and the EEZ.
- H.R. 5180 establishes an ombudsman office within NMFS; the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on this bill on July 27, 2010.
- Section 4 of H.R. 5863 prohibits the approval of oil and gas exploration and/or development/production plans unless the Secretary certifies MSFCMA compliance; in addition, Section 5 would require consultation for any of these oil and gas activities for their potential effect on fish habitat in federal waters.

## **Pacific Salmon**

### **Background**

Steelhead trout and five species of salmon spawn in Pacific coastal rivers and lakes, after which juveniles migrate to North Pacific ocean waters where they mature before returning to the same freshwater rivers and lakes to spawn. Management is complicated because these fish may cross several state and national boundaries during their life spans, and their different subpopulations/stocks intermingle on fishing grounds. In addition to natural environmental fluctuations, threats to salmon include hydropower dams that block rivers and create reservoirs, sport and commercial harvests, habitat modification by competing resource industries and other human development, and hatcheries seeking to supplement natural production but sometimes unintentionally causing genetic or developmental concerns. In response to declining salmon populations in Washington, Oregon, Idaho, and California, discrete population units have been listed as endangered or threatened species under the Endangered Species Act.<sup>21</sup> On September 13, 2006, a San Joaquin River Restoration Settlement Agreement was announced, ending an 18-year legal dispute over the operation of Friant Dam in California. This agreement provides for river channel improvements and water flow to sustain Chinook salmon upstream (south) from the confluence of the Merced River tributary while reducing or avoiding adverse water supply impacts to Friant Division long-term water contractors that may result from restoration flows provided in the agreement.

To address some of their concerns about Pacific salmon management, the United States and Canada negotiated a bilateral agreement on Pacific salmon in 1985. However, by the mid-1990s, controversy stalled renegotiations to adjust cooperative management of these fish. This deadlock was resolved in June 1999 when a new accord was concluded. Annex IV of this bilateral agreement outlines, in detail, the fishery regimes to be followed by Canada and the United States in cooperatively managing the six species of anadromous Pacific salmon and steelhead trout. Annex IV was recently renegotiated and took effect on January 1, 2009.<sup>22</sup>

### **Action in the 111<sup>th</sup> Congress**

Language in the “construction” account for the U.S. Fish and Wildlife Service in P.L. 111-8 (H.R. 1105, the Omnibus Appropriations Act for 2009) permanently rescinded all unobligated balances under the authority of the Anadromous Fish Conservation Act. Title X, Subtitle A, of P.L. 111-11 (H.R. 146) authorized the implementation of the San Joaquin River Restoration Settlement<sup>23</sup> providing for the reintroduction of Chinook salmon.<sup>24</sup> The 111<sup>th</sup> Congress is considering several additional bills relating to Pacific salmon:

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<sup>21</sup> For additional background on this issue, see CRS Report 98-666, *Pacific Salmon and Steelhead Trout: Managing Under the Endangered Species Act*, by Eugene H. Buck and Harold F. Upton.

<sup>22</sup> For background information on the Pacific Salmon Treaty, see CRS Report RL30234, *The Pacific Salmon Treaty: The 1999 Agreement and Renegotiated Annex IV*, by Eugene H. Buck. For additional information on the renegotiated Annex IV, see <http://www.dfo-mpo.gc.ca/media/back-fiche/2009/pr01-eng.htm>.

<sup>23</sup> For additional information on this settlement, see CRS Report RL34237, *San Joaquin River Restoration Settlement*, coordinated by Betsy A. Cody and Pervaze A. Sheikh.

<sup>24</sup> For more background, see CRS Report R40125, *Title X of H.R. 146: San Joaquin River Restoration*, by Betsy A. Cody and Pervaze A. Sheikh.

- H.R. 1080 amends the Pacific Salmon Treaty Act to strengthen enforcement mechanisms to stop illegal, unreported, and unregulated fishing; on March 19, 2009, the House Natural Resources, Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on this bill, and on July 24, 2009, the House Committee on Natural Resources reported this measure, amended (H.Rept. 111-228). The House passed H.R. 1080 (amended) on September 22, 2009. S. 2870 amends the Pacific Salmon Treaty Act of 1985 and the Northern Pacific Anadromous Stocks Act of 1992 to deter and combat illegal, unreported, and unregulated fishing. On March 24, 2010, the Senate Committee on Commerce, Science, and Transportation ordered S. 2870 reported.
- H.R. 1672 and S. 668 direct county marine resources committees to assist in identifying local implications, needs, and strategies associated with the recovery of Puget Sound salmon. On October 20, 2009, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on H.R. 1672. On October 21, 2009, the Senate Committee on Commerce, Science, and Transportation reported (amended) S. 668 (S.Rept. 111-90). On December 7, 2009, the House Committee on Natural Resources reported (amended) H.R. 1672 (H.Rept. 111-354), and the House subsequently passed this measure (amended).
- On March 31, 2009, the House Committee on Natural Resources held an oversight hearing on the California drought and actions by federal and state agencies to address impacts on lands, fisheries, and water users. H.R. 2977 directs the Bureau of Reclamation to enter into an agreement with the National Academy of Sciences to study sustainable water and environmental management in the Sacramento-San Joaquin Delta, California. H.R. 3794 amends the Central Valley Project Improvement Act to assist in efforts to avoid losses of juvenile anadromous fish.
- S. 817 and H.R. 2055 establish a Salmon Stronghold Partnership program to protect wild Pacific salmon; on June 16, 2009, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on H.R. 2055. On April 15, 2010, the Senate Commerce, Science, and Transportation Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard held a hearing on S. 817. On June 9, 2010, the Senate Committee on Commerce, Science, and Transportation ordered S. 817 reported.
- Section 201 of H.R. 4347 amends Title IV of the Indian Self-Determination and Education Assistance Act relating to funding agreements with the Hoopa Valley Tribe for restoring the Trinity River fishery and with the Quinault Indian Nation for the National Salmon Hatchery located on the Quinault Reservation.
- H.R. 3503 requires a scientific analysis of Federal salmon recovery efforts by the National Academy of Sciences and authorizes removal of the four lower Snake River dams by the Army Corps of Engineers.
- H.R. 3999 directs the Commissioner of the Bureau of Reclamation to initiate ESA consultations on the Central Valley Project and the California State Water Project.

## **Additional Fishery Issues in the 111<sup>th</sup> Congress**

### **Assistance**

Section 1886 of P.L. 111-5 broadens the basis for determining import increases relating to trade adjustment assistance for fishing and aquaculture to include wild-caught fish and seafood in addition to farm-raised fish and seafood. Several other bills in the 111<sup>th</sup> Congress deal with assistance to the fishing industry:

- S. 533 and H.R. 2548 amend the Coastal Zone Management Act to establish a grant program to ensure waterfront access for aquaculture operators and commercial fishermen. On October 20, 2009, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on H.R. 2548.
- H.R. 3583 provides for a subsidy to sellers and buyers of fish directly delivered to American Samoa from vessels with U.S. fisheries endorsements. On November 4, 2009, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on this measure.
- Section 208 of S. 2731 requires a report to Congress providing information on economic injury disaster declarations under Section 7(b)(2) of the Small Business Act (15 U.S.C. 636(b)(2)) based on a fishery resource disaster declaration from the Secretary of Commerce.
- S. 3337 and Section 10 of S. 3763 provide technical assistance grants to fisheries organizations for assisting individuals and businesses affected by the Deepwater Horizon oil spill in the Gulf of Mexico to file claims.
- H.R. 1983 recodifies Title 53 (Small Business) of the U.S. Code, including disaster assistance programs applicable to commercial fishermen and aquaculture operations.
- H.R. 4914 and S. 3528 promote coastal jobs creation in activities that promote sustainable fisheries and fishing communities and revitalize waterfronts. On July 27, 2010, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on H.R. 4914.
- Section 9 of H.R. 5676 would amend the Oil Pollution Act of 1990 to treat fishermen as a separate category in processing claims for loss of income.

### **Habitat Protection and Restoration**

Section 9107 of P.L. 111-11 (H.R. 146) amended P.L. 106-392 to extend the authorizations for the Upper Colorado and San Juan River Basin endangered fish recovery programs through FY2023. On July 27, 2010, the Senate Environment and Public Works Subcommittee on Water and Wildlife held an oversight hearing to assess the natural resource damages resulting from the BP Deepwater Horizon disaster. Other measures have been introduced:

- H.R. 790 and S. 851 prohibit federal oil or natural gas leases in any marine national monument or national marine sanctuary or Georges Bank. H.R. 204 permanently prohibits oil and gas leasing off the coast of Mendocino, Humboldt, and Del Norte Counties in the state of California. H.R. 1696 and S. 783

- permanently prohibit offshore drilling on the outer Continental Shelf in the Mid-Atlantic and North Atlantic planning areas. H.R. 1906 permanently prohibits oil and gas leasing off the California coast. H.R. 2439 prohibits oil and gas leases on portions of the outer continental shelf located off the coast of New Jersey. H.R. 5213 and S. 3358 prohibit offshore drilling on the outer continental shelf off California, Oregon, and Washington. H.R. 5287 prohibits offshore drilling on the outer continental shelf in the Atlantic Ocean and Gulf of Mexico. H.R. 5248 prohibits oil, gas, or mineral leasing on the entire U.S. outer continental shelf. H.R. 5358 prohibits oil and gas leasing on the outer continental shelf off the Florida coast. H.R. 5607 prohibits oil and gas leasing in the North Atlantic Planning Area.
- H.R. 2288/S. 1453 amend P.L. 106-392 to maintain annual base funding for the Upper Colorado and San Juan fish recovery programs through FY2023. The Senate Energy and Natural Resources Subcommittee on Water and Power held a hearing on S. 1453 on July 23, 2009. On September 22, 2009, the House Natural Resources Subcommittee on Water and Power held a hearing on H.R. 2288. On May 18, 2010, the House Committee on Natural Resources reported (amended) H.R. 2288 (H.Rept. 111-481), and the House passed this measure (amended) on the same date. On March 2, 2010, the Senate Committee on Energy and Natural Resources reported S. 1453 (S.Rept. 111-142).
  - S. 1252 amends and reauthorizes the Oceans and Human Health Act through FY2014; on September 20, 2010, the Senate Committee on Commerce, Science, and Transportation reported (amended) this measure (S.Rept. 111-296). Section 605 of H.R. 3534 creates an Ocean Resources Conservation and Assistance Fund to support activities that promote and protect ocean ecosystem health and biodiversity. On September 16-17, 2009, the House Committee on Natural Resources held hearings on H.R. 3534. On July 28, 2010, the House Committee on Natural Resources reported (amended) H.R. 3534 (H.Rept. 111-575), and the House passed this amended measure on July 30, 2010. On May 11, 2010, the Senate Environment and Public Works Subcommittee on Oversight and Subcommittee on Water and Wildlife held a joint oversight hearing on the Environmental Protection Agency's role in protecting ocean health.
  - H.R. 1672 and S. 668 amend and reauthorize the Northwest Straits Marine Conservation Initiative Act. On October 20, 2009, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on H.R. 1672. On October 21, 2009, the Senate Committee on Commerce, Science, and Transportation reported (amended) S. 668 (S.Rept. 111-90). On December 7, 2009, the House Committee on Natural Resources reported (amended) H.R. 1672 (H.Rept. 111-354), and the House subsequently passed this measure (amended).
  - H.R. 2565 and S. 1214 seek to conserve fish and aquatic communities through partnerships that foster fish habitat conservation; on June 16, 2009, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on H.R. 2565. On December 3, 2009, the Senate Environment and Public Works Subcommittee on Water and Wildlife held a hearing on S. 1214. On May 17, 2010, the Senate Committee on Environment and Public Works reported (amended) S. 1214 (S.Rept. 111-190).

- S. 1311 amends the Federal Water Pollution Control Act (Clean Water Act) to enhance cooperative efforts to monitor, restore, and protect water quality and marine ecosystems of the Gulf of Mexico. On November 9, 2009, the Senate Environment Subcommittee on Water and Wildlife held a hearing on this measure. Title VIII of H.R. 3534, as reported by the Committee on Natural Resources on July 28, 2010, establishes a Gulf of Mexico Restoration Program (H.Rept. 111-575, Part I). The House passed H.R. 3534, amended, on July 30, 2010, with the Restoration Program in Title V.
- S. 1601, S. 3387, and H.R. 5362 provide for the release of water from the Ruedi Reservoir for the benefit of endangered fish habitat in the Colorado River. On June 9, 2010, the Senate Energy and Natural Resources Subcommittee on Water and Power held a hearing on S. 3387.
- Section 106 of S. 684, Section 208 of S. 3597, and Section 627 of S. 3663 authorize the Coast Guard and NOAA to identify U.S. areas where special navigational measures are warranted to reduce the risk of oil spills and potential damage to natural resources, including commercial fisheries. S. 3597 seeks to improve the ability of the National Oceanic and Atmospheric Administration, the Coast Guard, and coastal states to sustain healthy ocean and coastal ecosystems relative to oil spills; the Senate Committee on Commerce, Science, and Transportation ordered this measure reported (amended) on July 27, 2010.
- H.R. 5344 and S. 3382 authorize the Secretary of the Interior, through the Coastal Program of the U.S. Fish and Wildlife Service, to work with willing partners to assess, protect, restore, and enhance coastal areas that provide fish habitat.
- H.R. 2977 directs the Bureau of Reclamation to enter into an agreement with the National Academy of Sciences to study sustainable water and environmental management in the Sacramento-San Joaquin Delta, California.
- S.Res. 247 and H.Res. 710 express support for the objectives of “National Estuaries Day” (September 26, 2009). On September 10, 2009, the Senate agreed to S.Res. 247; the House agreed to H.Res. 710 on October 6, 2009. S.Res. 596 designates September 25, 2010, as “National Estuaries Day”; the Senate agreed to this measure on August 3, 2010; H.Res. 1503 expresses support for the objectives of “National Estuaries Day” (September 25, 2010); the House agreed to H.Res. 1503 on September 22, 2010.
- Section 15 of H.R. 2120 authorizes expenditures for monitoring and management of fish and their habitat related to energy and minerals development on federal onshore and offshore lands.
- H.R. 3622 amends the Internal Revenue Code of 1986 to allow a credit for the construction of ponds for recreational fishing and conservation of aquatic habitat.
- Section 312 of S. 3280 amends the Sikes Act to provide funding for fish habitat management on state-owned National Guard installations.
- H.Res. 1458 celebrates the diversity of marine fisheries and the biological richness of marine ecosystems.
- A number of bills in the 111<sup>th</sup> Congress address various water quality and aquatic/marine ecosystem restoration issues more generally; for more information on these issues, see CRS Report R40098, *Water Quality Issues in the*

*111<sup>th</sup> Congress: Oversight and Implementation*, by Claudia Copeland, and CRS Report RL34329, *Crosscut Budgets in Ecosystem Restoration Initiatives: Examples and Issues for Congress*, by Pervaze A. Sheikh and Clinton T. Brass.

## **Climate Change and Ocean Acidification**

Title XII, Subtitle D, of P.L. 111-11 (H.R. 146) directed the Secretary of Commerce to establish an ocean acidification program within NOAA, and to establish an interagency committee to develop an ocean acidification research and monitoring plan.<sup>25</sup> On April 22, 2010, the Senate Commerce, Science, and Transportation Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard held a hearing on the environmental and economic impacts of ocean acidification. Several additional bills deal with climate change and fisheries:

- H.R. 2192; Title IV, Subtitle E, Part 1, Subpart C, of H.R. 2454/H.R. 2998; Division A, Title III, Subpart C, of S. 1733; and S. 1933 establish and fund an integrated federal program to protect, restore, and conserve natural resources in response to the threats of climate change.<sup>26</sup> The House Committee on Energy and Commerce held hearings on H.R. 2454 on May 18-21, 2009, and reported this measure (amended) on June 5, 2009 (H.Rept. 111-137, Part I). On June 26, 2009, the House passed H.R. 2454 (amended). The Senate Committee on Environment and Public Works held a hearing on S. 1733 on October 27-29, 2009, and reported this bill (amended) on February 2, 2010 (S.Rept. 111-121). Section 6(c)(1)(N) of S. 2877 provides funding for climate change and ocean acidification mitigation and adaptation projects, activities, and research to increase the resilience of fish and wildlife and ecosystems. S. 3641 establishes a National Endowment for the Oceans, authorizing funding for analyses of climate change and ocean acidification.
- H.Res. 989 expresses the sense of the House that the United States should adopt national policies and pursue international agreements to prevent ocean acidification, to study the impacts of ocean acidification, and to address the effects of ocean acidification on marine ecosystems and coastal economies. On June 9, 2010, the House failed to agree to this measure under suspension of the rules.
- Section 4 of S. 810 directs NOAA and EPA to establish four regional Institutes for Ocean and Coastal Adaptation to Climate Change and Ocean Acidification, to conduct research, planning, and related efforts to assess, prepare for, and adapt to the ongoing and expected impacts of climate change and ocean acidification.

## **Energy and Water Projects**

Section 13002 of P.L. 111-11 (H.R. 146) reauthorized (through FY2015) and amended the Fisheries Restoration and Irrigation Mitigation Act of 2000. Section 15 of H.R. 2120 authorizes expenditures for monitoring and management of fish and their habitat related to energy and minerals development on federal onshore and offshore lands.

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<sup>25</sup> For background information, see CRS Report R40143, *Ocean Acidification*, by Eugene H. Buck and Peter Folger.

<sup>26</sup> For additional information, see CRS Report R40911, *Comparison of Climate Change Adaptation Provisions in S. 1733 and H.R. 2454*, coordinated by Melissa D. Ho.

## **Sport Fisheries**

Section 160 of P.L. 111-68 extended the division of appropriations for various programs under the Sport Fish Restoration and Boating Trust Fund through October 31, 2009. Section 3513 of P.L. 111-84 (H.R. 2647) modified the authorization for applications to the Secretary of Transportation for obsolete vessels to be used as artificial reefs. Section 1008(a) of P.L. 111-118 further extended the authority to make expenditures from the Highway Trust Fund and other trust funds, including various programs under the Sport Fish Restoration and Boating Trust Fund, through February 28, 2010. Section 4(a) of P.L. 111-144 further extended the authority to make expenditures from the Highway Trust Fund and other trust funds, including various programs under the Sport Fish Restoration and Boating Trust Fund, through March 28, 2010. P.L. 111-147 further extended the authority to make expenditures from the Highway Trust Fund and other trust funds, including various programs under the Sport Fish Restoration and Boating Trust Fund, through December 31, 2010. Section 3001(a)(4) of P.L. 111-227 extends the temporary suspension of duty on lug-bottom boots for use in fishing waders.

Several bills contain provisions related to sport and recreational fisheries:

- Section 19(b) of H.R. 1108 and Section 21(b) of H.R. 2120 amend the Outer Continental Shelf Lands Act to direct the Secretary of the Interior to issue regulations permitting the use of decommissioned offshore oil and gas platforms as artificial reefs, and require a study of how the removal of offshore oil and gas platforms and other outer continental shelf facilities might affect existing fish stocks and coral populations.
- H.R. 2430 directs the Secretary of the Interior to continue stocking fish in certain lakes in the North Cascades National Park, Ross Lake National Recreation Area, and Lake Chelan National Recreation Area; the House agreed to this measure on June 2, 2009. The Senate Energy and Natural Resources Subcommittee on National Parks held a hearing on H.R. 2430 on July 22, 2009. On August 5, 2010, the Senate Committee on Energy and Natural Resources ordered this bill reported, amended.
- Section 9(b)(2)(B) of S. 503 makes a portion of adjusted bonus, rental, and royalty revenues from federal oil and gas leasing and operations in the western Arctic coastal plain of Alaska available for federal sport fish restoration grants.
- S. 297/S. 477 authorize charter boat operators and recreational fishermen to form associations to catch and market aquatic products, implement vessel capacity reduction programs, and undertake research.
- H.R. 5672 protects the use of traditional fishing equipment on federal lands and prevents certain restrictions on the implements and equipment used by fishing communities.
- H.R. 3622 amends the Internal Revenue Code of 1986 to allow a credit for the construction of ponds for recreational fishing and conservation of water-based wildlife habitat.
- As amended and passed by the House on May 28, 2010, Section 1067 of H.R. 5136 expresses the sense of Congress regarding recreational fishing on military installations.

- H.Res. 1282 expresses the sense of the House of Representatives that the promotion of recreational fishing and boating should be a national priority.
- H.R. 2717 and S. 1205 exempt guides for hire and other operators of uninspected vessels on Lake Texoma from Coast Guard and other regulations.
- H.R. 3749 and S. 1770 seek to promote opportunities for recreational fishing, hunting, and shooting on federal public lands. On July 30, 2010, the House passed H.R. 3534, amended to include Section 403(a) requiring that at least 1.5% of the Land and Water Conservation Fund each year be expended toward securing recreational public access to federal lands under the jurisdiction of the Secretary of the Interior for hunting, fishing, and other outdoor recreation.
- H.R. 1379 prohibits the commercial harvesting of Atlantic striped bass in coastal waters and the EEZ. H.R. 6092 amends the Atlantic Striped Bass Conservation Act to allow recreational fishing for Atlantic striped bass in the Block Island Sound transit zone.

## **International Relations**

P.L. 111-117 appropriated funds for international fisheries commissions at \$53.976 million for FY2010. On July 14, 2010, the Senate Finance Subcommittee on International Trade, Customs, and Global Competitiveness held an oversight hearing on “Marine Wealth: Promoting Conservation and Advancing American Exports.” Section 103(4) of H.R. 2410 authorizes appropriations for International Fisheries Commissions at \$12.608 million for FY2010 and such sums as may be necessary for FY2011; on June 4, 2009, the House Committee on Foreign Affairs reported this measure (H.Rept. 111-136), amended to authorize the Administration’s request of \$43.576 million for international fisheries commissions for FY2010 and such sums as may be necessary for FY2011. On June 10, 2009, the House passed H.R. 2410 (amended). Section 103(4) of H.R. 2475 authorizes appropriations for international fisheries commissions at \$29.925 million for FY2010 and such sums as may be necessary for FY2011. S. 2870 amends various statutes implementing international fishery agreements to deter and combat illegal, unreported, and unregulated (IUU) fishing. On March 24, 2010, the Senate Committee on Commerce, Science, and Transportation ordered S. 2870 reported. S. 2871 makes technical corrections to the Western and Central Pacific Fisheries Convention Implementation Act and the Pacific Whiting Act of 2006; on September 20, 2010, the Senate Committee on Commerce, Science, and Transportation reported this measure (S.Rept. 111-297). Section 110 of S. 2971 amends the Fishermen’s Protective Act to extend the period for reimbursement of seized commercial fishermen through FY2013; on April 27, 2010, the Senate Committee on Foreign Relations ordered this measure reported (amended). Section 101(b)(3) of S. 3508/H.R. 4959 direct that a comprehensive plan of action under an International Conservation Strategy consider increased surveillance and enforcement to address IUU fishing in ten developing countries where fish stocks are severely depleted and regional fishing economies are threatened. On July 29, 2010, the Senate Committee on Appropriations reported S. 3676, providing \$51.5 million for international fisheries commissions for FY2011 (S.Rept. 111-237). H.Res. 1608 condemns the detainment of a South Korean fishing vessel by North Korea. On September 22, 2010, the House Foreign Affairs Subcommittee on Asia, the Pacific, and the Global Environment held an oversight hearing on renegotiating the South Pacific tuna treaty.

## **Health Care**

P.L. 111-148 includes provisions authorizing grants to commercial fishing industry organizations to provide information on qualified health benefit plans and identifying fishing as a high-risk profession affecting the cost of employer-sponsored health coverage. Section 2(a) of H.R. 2607, Section 112(a) of S. 1240, Section 232(a) of H.R. 3400, Section 121(a) of H.R. 3713, Section 502(a) of H.R. 3889, Section 201(a) of H.R. 4038, Section 132(a) of H.R. 4529, and Section 501(a) of H.R. 5421 amend the Employee Retirement Income Security Act of 1974 (ERISA; P.L. 93-406; 29 U.S.C. §§ 1001, et seq.) to authorize fishing industry associations to provide health care plans for association members.

## **Coral**

Several bills relate to coral and coral reefs:

- H.R. 860 and S. 2859 amend and reauthorize the Coral Reef Conservation Act of 2000 through FY2014; the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on H.R. 860 on February 25, 2009. On July 10, 2009, the House Committee on Natural Resources reported (amended) H.R. 860 (H.Rept. 111-196). The House passed H.R. 860 (amended) on September 22, 2009. On December 17, 2009, the Senate Committee on Commerce, Science, and Transportation ordered S. 2859 reported. Title IX of S. 3663 amends the Coral Reef Conservation Act of 2000 to clarify prohibited activities and enforcement.
- H.Res. 989 expresses the sense of the House that the United States should adopt national policies and pursue international agreements to prevent ocean acidification, to study the impacts of ocean acidification, and to address the effects of ocean acidification on marine ecosystems and coastal economies.
- H.R. 52/S. 345 amend the Tropical Forest Conservation Act of 1998 to provide debt relief to developing countries that protect coral reefs and associated coastal marine ecosystems; on July 16, 2009, the Senate Committee on Foreign Relations reported S. 345 (S.Rept. 111-49).
- Section 19(b) of H.R. 1108 and Section 21(b) of H.R. 2120 amend the Outer Continental Shelf Lands Act to require a study of how the removal of offshore oil and gas platforms and other outer continental shelf facilities might affect existing coral populations.
- H.R. 4914 and S. 3528 promote coastal jobs creation in activities that implement local strategies developed by state or federal agencies to conserve coral reef ecosystems. On July 27, 2010, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on H.R. 4914.

## **Invasive Species**

On February 9, 2010, the House Transportation and Infrastructure Subcommittee on Water Resources and Environment held an oversight hearing on Asian carp and the Great Lakes.<sup>27</sup> On

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<sup>27</sup> For additional background on Asian carp, see CRS Report R41082, *Asian Carp and the Great Lakes Region*, by (continued...)

February 25, 2010, the Senate Energy and Natural Resources Subcommittee on Water and Power held a hearing to examine the science and policy behind efforts to prevent the introduction of Asian carp into the Great Lakes. On July 14, 2010, the Senate Energy and Natural Resources Subcommittee on Water and Power held an oversight hearing to examine the federal response to the discovery of Asian carp in Lake Calumet, Illinois. In addition, a number of bills were introduced with provisions relating to invasive species issues.

- Several bills amend the Lacey Act to add bighead carp (H.R. 48 and S. 1421/H.R. 3173) to the list of injurious species that are prohibited from being imported or shipped interstate; the Senate Environment and Public Works Subcommittee on Water and Wildlife held a hearing on S. 1421 on December 3, 2009, and the full committee ordered this bill reported on December 10, 2009. H.R. 51 directs the U.S. Fish and Wildlife Service to study the feasibility of various approaches to eradicating Asian carp from the Great Lakes watershed. H.R. 4472 and S. 2946 direct the Secretary of the Army to take action with respect to the Chicago Area Waterway System to prevent the migration of bighead and silver carp into Lake Michigan. H.R. 4604 directs the Secretary of the Army to prevent the spread of Asian carp in the Great Lakes and their tributaries. H.R. 5625 and S. 3553 require the Army Corps of Engineers to provide a study of how to separate the Great Lakes and Mississippi River Basins, to be completed in 18 months; to identify modes of shipping that would not compromise hydrological separation; and to detail the environmental benefits and costs of options for achieving hydrological separation. Section 3013 of H.R. 5892 amends the authorization for the Chicago Sanitary and Ship Canal dispersal barriers.
- H.R. 4001 and S. 2724 amend the Lake Tahoe Restoration Act to direct that certain activities be undertaken to address aquatic invasive species concerns in the Lake Tahoe Basin; on February 24, 2010, the Senate Environment and Public Works Subcommittee on Water and Wildlife held a hearing on S. 2724, and on June 21, 2010, the committee reported (amended) this bill (S.Rept. 111-211).
- Title I of H.R. 500/S. 237 amends the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 to require vessels to have aquatic invasive species plans for ballast water management; the remainder of this title focuses on improving coordination among various national and international efforts to control invasive species and authorizes various research programs to address invasive species concerns. Section 7(a) of S. 3566 would authorize the Maritime Administration to establish a Green Ships Program to identify, evaluate, demonstrate, or improve technologies for control of aquatic invasive species.
- H.R. 669 directs the Secretary of the Interior to promulgate regulations that establish a process for assessing the risk of non-native species proposed for importation into the United States, including lists of approved and unapproved species; the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held hearings on this measure on April 23, 2009.
- Section 2(g) of H.R. 4715, as amended in and passed by the House on April 15, 2010, amends the National Estuary Program to promote research on monitoring

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of pathways and ecosystems to track the introduction and establishment of nonnative species. On September 16, 2010, the Senate Committee on Environment and Public Works reported (amended) this measure (S.Rept. 111-293).

- S. 3063 and H.R. 4782 direct the Secretary of the Interior to provide loans to certain organizations in certain (primarily western) states to address and prevent invasive species expansions.
- Section 103(b) of H.R. 3481 gives priority to funding projects that monitor the distribution of or study means of reducing or eliminating quagga mussels in the Lower Colorado River.
- S. 3073 would prioritize funding non-federal partners in a Great Lakes Restoration Initiative for invasive species prevention and mitigation and restoration of invasive species impacts.

## **Fishing Vessels**

P.L. 111-215 (S. 3372) extends the date on which the Environmental Protection Agency and applicable states may require permits for discharges from fishing vessels to December 18, 2013. Several bills relate to commercial fishing vessels:

- S. 1124, Section 605 of S. 1194, and Section 2 of H.R. 2652 amend Title 46, *United States Code*, to modify the vessel size limit eligibility criteria for a fishery endorsement; in addition, Section 4 of H.R. 2652 and Section 804 of H.R. 3619 amend various provisions of Title 46 relating to fishing vessel safety. On December 3, 2009, the House Committee on Transportation and Infrastructure reported (amended) H.R. 2652 (H.Rept. 111-351). On October 30, 2009, the Senate Committee on Commerce, Science, and Transportation reported (amended) S. 1194 (S.Rept. 111-95). On October 16, 2009, the House Committee on Transportation and Infrastructure reported (amended) H.R. 3619 (H.Rept. 111-303, Part I). The House passed H.R. 3619 on October 23, 2009, amended to include language in Section 1324 extending the moratorium from EPA regulations and fines governing incidental discharges from commercial fishing vessels less than 79 feet until December 2013. On May 7, 2010, the Senate passed H.R. 3619, after amending this measure to substitute the language of S. 1124, as reported.
- H.R. 3583 provides for a subsidy to sellers and buyers of fish directly delivered to American Samoa from vessels with U.S. fisheries endorsements; on November 4, 2009, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on this measure.
- S. 532 amends the Internal Revenue Code to provide a business credit against income for the purchase of fishing safety equipment.
- S. 3276 provides for an election to terminate certain Capital Construction funds without penalty.
- Section 2 of S. 3755 makes certain claims for personal injury or wrongful death on fishing vessels subject to the limitation in the amended Limitation of Shipowners' Liability Act of 1851; Section 4(c) of this bill specifies that

amendments to the Death on the High Seas Act are inapplicable to fishing vessels.

## **Tuna**

On April 2, 2009, the House Foreign Affairs Subcommittee on Asia, the Pacific, and the Global Environment held a hearing on the South Pacific Tuna Treaty. On November 9, 2009, the Senate agreed to S.Res. 346, expressing the sense of the Senate regarding the U.S. position at the 21<sup>st</sup> Regular Meeting of the International Commission on the Conservation of Atlantic Tunas relative to Atlantic bluefin tuna. Several bills relate to tuna and tuna fisheries:

- H.Res. 1180 expresses the sense of the House of Representatives regarding U.S. policy on wild animals at the Conference of the Parties of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), including support for the proposal to include bluefin tuna in CITES Appendix I. H.Res. 1420 expresses the sense of the House urging parties to CITES to adopt stronger protections for bluefin tuna at the 16<sup>th</sup> meeting of the Conference of the Parties in 2013.
- Section 1115 of H.R. 3619 specifies officer requirements for distant water tuna vessels; on October 16, 2009, the House Committee on Transportation and Infrastructure reported (amended) H.R. 3619 (H.Rept. 111-303, Part I), with the tuna vessel provision in Section 1315; the House passed this measure (amended) on October 23, 2009. On May 7, 2010, the Senate passed H.R. 3619, after amending this measure to substitute the language of S. 1124, as reported.
- H.R. 3583 provides for a subsidy to sellers and buyers of fish directly delivered to American Samoa from vessels with U.S. fisheries endorsements; on November 4, 2009, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on this measure. S. 2871 makes technical corrections to the Western and Central Pacific Fisheries Convention Implementation Act; on September 20, 2010, the Senate Committee on Commerce, Science, and Transportation reported this measure (S.Rept. 111-297).
- S. 2870 amends various statutes implementing international tuna agreements to deter and combat illegal, unreported, and unregulated fishing; in addition, Title IV of this measure amends the Tuna Conventions Act of 1950 to implement the Antigua Convention. On March 24, 2010, the Senate Committee on Commerce, Science, and Transportation ordered S. 2870 reported.
- H.R. 1309 redefines terms used in the Harmonized Tariff Schedule of the United States relating to tuna products to lower duties on imported tuna loins used in U.S. tuna canneries.
- On September 22, 2010, the House Foreign Affairs Subcommittee on Asia, the Pacific, and the Global Environment held an oversight hearing on renegotiating the South Pacific tuna treaty.

## **Enforcement**

Section 4(b) of P.L. 111-207 (H.R. 3360) combines separate Coast Guard reports on fisheries enforcement plans and foreign fishing incursion into a single report. On March 2, 2010, the

House Oversight and Government Reform Subcommittee on Domestic Policy held an oversight field hearing in Gloucester, MA, on problems with NOAA's fishery law enforcement. On March 3, 2010, the Senate Commerce, Science, and Transportation Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard held an oversight hearing on NOAA's fisheries enforcement programs and operations. On March 3, 2010, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held an oversight hearing on improving NOAA law enforcement programs and operations. H.R. 1080 amends various fishery statutes to strengthen enforcement mechanisms to stop illegal, unreported, and unregulated fishing; on March 19, 2009, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on this bill, and on July 24, 2009, the House Committee on Natural Resources reported this measure, amended (H.Rept. 111-228). The House passed H.R. 1080 (amended) on September 22, 2009. S. 2870 amends various statutes implementing international fishery agreements to deter and combat illegal, unreported, and unregulated fishing. On March 24, 2010, the Senate Committee on Commerce, Science, and Transportation ordered S. 2870 reported. H.R. 5668 amends the MSFCMA to require the use of sums received as fines, penalties, and forfeitures of property for violations of that act or other marine resource laws to be used to reduce the federal deficit and debt. Section 4 of H.R. 5770 requires a Coast Guard assessment of the need for additional prevention and response capability, including fisheries enforcement, in the high-latitude regions.

### **Seafood Safety and Nutrition**

S. 92 directs the Secretary of Health and Human Service to refuse entry of certain seafood imports and to specify actions to be taken on rejected shipments. Section 102 of H.R. 875 consolidates food safety and inspection programs, including seafood inspection. H.R. 1370 directs the Secretaries of Commerce and of Health and Human Services to strengthen programs to better ensure that seafood in interstate commerce is fit for human consumption. S. 1252 amends and reauthorize the Oceans and Human Health Act through FY2014; on September 20, 2010, the Senate Committee on Commerce, Science, and Transportation reported (amended) this measure (S.Rept. 111-296). H.R. 4022, S. 2735, and S. 2752 prohibit additional requirements for the control of *Vibrio vulnificus* applicable to the post-harvest processing of oysters; in addition, S. 2752 requires an education campaign to increase awareness of the risks associated with consuming raw oysters. Section 405 of S. 510 (amended), as reported by the Senate Committee on Health, Labor, Education, and Pensions on December 18, 2009, directs the Secretary of Health and Human Services to update the Fish and Fisheries Products Hazards and Control Guidance to take into account advances in technology. Section 4 of S. 2913 establishes a national monitoring program of mercury levels in fish and their habitat. S. 2934 amends the Federal Food, Drug, and Cosmetic Act to ensure the safety of imported seafood and authorizes cooperative inspection programs by individual states. Section 2(b)(5) of S. 3569 and Section 611(d)(2)(E) of S. 3663 require NOAA to review the effect of subsea hydrocarbons on seafood safety; in addition, Section 623 of S. 3663 revises requirements and guidance for opening and closing fishing grounds following an oil spill. Section 2 of H.R. 6017 establishes a Gulf Coast Health Monitoring and Research Program, including a focus on the safety of Gulf Coast seafood.

### **Hypoxia and Algal Blooms**

Section 6 of S. 878 and Section 13 of H.R. 2093 (as reported) require the EPA Administrator to complete a study on the impact of algae blooms on coastal recreation waters; the Senate Committee on Environment and Public Works reported S. 878 (amended) on April 20, 2010

(S.Rept. 111-170). The House Committee on Transportation reported (amended) H.R. 2093 on July 20, 2009 (H.Rept. 111-214). On July 29, 2009, the House passed H.R. 2093 (amended). S. 952 and H.R. 3650 authorize a comprehensive national strategy to address harmful algal blooms and hypoxia; on February 4, 2010, the Senate Committee on Commerce, Science, and Transportation reported (amended) S. 952 (S.Rept. 111-125), and on January 13, 2010, the House Committee on Science and Technology reported (amended) H.R. 3650 (H.Rept. 111-396, Part I). On March 9, 2010, the House considered H.R. 3650 (amended), under suspension of the rules, but failed to pass this measure. On March 12, 2010, the House reconsidered H.R. 3650 (amended), and passed this measure. S. 1252 amends and reauthorizes the Oceans and Human Health Act through FY2014; on September 20, 2010, the Senate Committee on Commerce, Science, and Transportation reported (amended) this measure (S.Rept. 111-296). On September 17, 2009, the House Science and Technology Subcommittee on Energy and Environment held a hearing on formulating an action plan to address harmful algal blooms and hypoxia.

### **National Marine Sanctuaries and Monuments**

Section 7(b)(2)(h) of H.R. 223/S. 212 promotes cooperative research and education efforts with commercial fishermen operating within the Gulf of the Farallones National Marine Sanctuary and the Cordell Bank National Marine Sanctuary; on August 4, 2009, the Senate Committee on Commerce, Science, and Transportation reported (amended) S. 212 (S.Rept. 111-64). H.R. 790 and S. 851 prohibit federal oil or natural gas leases in any marine national monument or national marine sanctuary or Georges Bank. H.R. 4493 enhances visitor services, fish and wildlife research, and marine and coastal resource management related to the Marianas Trench Marine National Monument; on May 18, 2010, the House Committee on Natural Resources reported this bill, amended (H.Rept. 111-484). H.R. 3511 authorizes the Secretary of the Interior to establish and operate a visitor facility for the Marianas Trench Marine National Monument; this measure was reported (amended) by the House Committee on Natural Resources on May 18, 2010 (H.Rept. 111-483).

### **Chesapeake Bay**

Section 2 of H.R. 1771/S. 1224 requires the Director of NOAA's Chesapeake Bay Office to establish a Chesapeake Bay coastal living resources management and habitat program to support coordinated management, protection, characterization, and restoration of priority habitats and living resources. The House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on H.R. 1771 on July 8, 2009. The House Committee on Natural Resources reported H.R. 1771 (amended) on September 29, 2009 (H.Rept. 111-271), and the House passed this measure (amended) on September 30, 2009. On February 23, 2010, the Senate Committee on Commerce, Science, and Transportation reported (amended) S. 1224 (S.Rept. 111-126). S. 1816 includes provisions (1) authorizing a study on the impacts of the commercial harvesting of menhaden on the water quality of the Chesapeake Bay and (2) prohibiting the introduction of Asian oysters into Chesapeake Bay.

### **Marine Turtles**

H.R. 509 reauthorizes the Marine Turtle Conservation Act of 2004 through FY2014; the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on this bill on May 5, 2009. On July 10, 2009, the House Committee on Natural Resources reported this measure, amended (H.Rept. 111-200). The House passed H.R. 509 (amended) on July 28, 2009.

On December 3, 2009, the Senate Environment and Public Works Subcommittee on Water and Wildlife held a hearing on this measure. On April 26, 2010, the Senate Committee on Environment and Public Works reported H.R. 509 (S.Rept. 111-173). H.R. 5155 directs the Secretary of Commerce to conduct an aerial assessment of sea turtle populations in U.S. waters.

## **Tax Provisions**

H.R. 115 amends the Internal Revenue Code to provide for tax-exempt qualified small issue bonds to finance fish processing facilities. S. 532 amends the Internal Revenue Code to provide a business credit against income for the purchase of fishing safety equipment. S. 1250, Section 1306 of H.R. 2300/H.R. 2828, and Section 2 of H.R. 3460, H.R. 3985, H.R. 4168, H.R. 5142, and Section 503 of S. 3601 amend the Internal Revenue Code to provide benefits for production of algae-based fuel. H.R. 3622 amends the Internal Revenue Code of 1986 to allow a credit for the construction of ponds for recreational fishing and conservation of water-based wildlife habitats.

## **Marketing**

Section 131 of H.R. 759 and Section 201 of H.R. 2749 amend the Federal Food, Drug, and Cosmetic Act to require labeling as a color additive whenever carbon monoxide is used to treat meat, poultry, and seafood.<sup>28</sup> On July 29, 2009, the House Committee on Energy and Commerce reported H.R. 2749 (H.Rept. 111-234), amended to remove the section relating to carbon monoxide. On July 7, 2009, the Senate Committee on Appropriations reported S. 1406, with report language encouraging the Food and Drug Administration to more aggressively combat fraud in parts of the seafood industry (S.Rept. 111-39).

## **Sharks**

H.R. 81 and S. 850 amend the High Seas Driftnet Fishing Moratorium Protection Act to increase sanctions on nations that permit shark finning; the House passed H.R. 81 on March 2, 2009. On February 4, 2010, the Senate Committee on Commerce, Science, and Transportation reported (amended) S. 850 (S.Rept. 111-124). H.Res. 1420 expresses the sense of the House urging parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora to adopt stronger protections for sharks at the 16<sup>th</sup> meeting of the Conference of the Parties in 2013.

## **Trade**

On July 14, 2010, the Senate Finance Subcommittee on International Trade, Customs, and Global Competitiveness held an oversight hearing on “Marine Wealth: Promoting Conservation and Advancing American Exports.” Section 4(b)(1) of S. 730 eliminates the duty on lug-bottom boots for use in fishing waders. S. 1824 and Section 4(c) of H.R. 4316 extend the temporary suspension of duty on lug-bottom boots for use in fishing waders. S. 2273 and Section 2001(a)(194) of H.R. 4380 extend the temporary suspension of duty on oysters (other than smoked), prepared or preserved; the House passed H.R. 4380 on July 21, 2010. H.R. 5804 and S. 3812 prohibit all trade in certain billfish, excluding swordfish.

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<sup>28</sup> For additional information, see CRS Report RL34247, *Federal Regulation of Substances Generally Recognized As Safe (GRAS) and the Use of Carbon Monoxide in Packaging for Meat and Fish*, by Vanessa K. Burrows and Cynthia Brougher.

## **Fisheries Research Vessel**

As reported by the Senate Committee on Commerce, Science, and Transportation (S.Rept. 111-95), Section 901 of S. 1194 requires the NOAA Administrator to take certain actions relative to determining the homeport of the fisheries research vessel *HENRY B BIGELOW*.

## **Native American Fisheries**

H.R. 5672 protects the use of traditional fishing equipment on federal lands and prevents unnecessary and unwarranted restrictions on the implements and equipment used by fishing communities.

# **Aquaculture**

## **Background**

Aquaculture is broadly defined as the farming or husbandry of fish, shellfish, and other aquatic animals and plants, usually in a controlled or selected environment.<sup>29</sup> The diversity of aquaculture is typified by such activities as fish farming, usually applied to freshwater commercial aquaculture operations (e.g., catfish and trout farms);<sup>30</sup> shellfish and seaweed culture; net-pen culture, used by the salmon industry, wherein fish remain captive throughout their lives in marine pens built from nets; and ocean ranching, used by the Pacific Coast salmon industry, whereby juvenile salmon are cultured, released to mature in the open ocean, and caught when they return as adults to spawn. Fish hatcheries can be either publicly or privately operated to raise fish for recreational and commercial stocking as well as to mitigate aquatic resource and habitat damage.

The U.N. Food and Agriculture Organization (FAO) has characterized aquaculture as one of the world's fastest-growing food production activities. World aquaculture production more than doubled in 10 years, from about 10 million metric tons in 1984 to 25.5 million metric tons in 1994; by 2002, global aquaculture production had reached almost 40 million metric tons. By mid-2006, FAO estimated that 43% of all fish consumed by humans came from aquaculture.<sup>31</sup> FAO has projected that aquaculture will surpass wild-harvested seafood as the source of more than half of global seafood consumption in 2008. In addition, FAO predicts that world aquaculture production could exceed 130 million metric tons by 2030.<sup>32</sup>

U.S. aquaculture, until recently and with a few exceptions, has been considered a minor industry. The U.S. Department of Agriculture's *2005 Census of Aquaculture* reported that U.S. sales of aquaculture products had reached nearly \$1.1 billion, with more than half this value produced in Alabama, Arkansas, Louisiana, and Mississippi.<sup>33</sup> Despite considerable growth, the domestic

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<sup>29</sup> For more background information, see CRS Report RL32694, *Open Ocean Aquaculture*, by Harold F. Upton and Eugene H. Buck, and out-of-print CRS Report 97-436, *Aquaculture and the Federal Role*, by Geoffrey S. Becker and Eugene H. Buck, available from the author at [gbuck@crs.loc.gov](mailto:gbuck@crs.loc.gov).

<sup>30</sup> For statistics on freshwater production, see <http://www.agcensus.usda.gov/Publications/2002/Aquaculture/index.asp>.

<sup>31</sup> For more details, see <http://www.fao.org/newsroom/en/news/2006/1000383/index.html>.

<sup>32</sup> For more discussion of FAO projections for 2030, see Part 3 of <http://www.fao.org/docrep/007/y5600e/y5600e00.htm>.

<sup>33</sup> See <http://www.agcensus.usda.gov/Publications/2002/Aquaculture/AQUACEN.pdf>. For the latest information on (continued...)

aquaculture industry faces strong competition from imports of foreign aquacultural products, from the domestic poultry and livestock industries, and from wild harvests. With growth, however, aquaculture operations face increasing scrutiny for habitat destruction, pollution, and other concerns. The major statute affecting U.S. aquaculture is the National Aquaculture Act of 1980, as amended (16 U.S.C. §§ 2801 et seq.). The purpose of this act is to ensure coordination of various federal programs and policies affecting the aquaculture industry, and to promote and support aquaculture research and development.

In October 2007, NOAA released a 10-year plan for its marine aquaculture program.<sup>34</sup> Legislation to modify the regulatory environment and promote the development of U.S. offshore, open-ocean aquaculture was introduced in the 110<sup>th</sup> Congress, but was not considered by either chamber.

## **Action in the 111<sup>th</sup> Congress**

### **Assistance**

P.L. 111-5 contains language in (1) Section 103(d) providing as much as \$50 million in total assistance to aquaculture producers for losses associated with high feed input costs during the 2008 calendar year; and (2) Section 1886 broadening the basis for determining import increases relating to trade adjustment assistance for fishing and aquaculture to include wild-caught fish and seafood in addition to farm-raised fish and seafood. P.L. 111-205 (H.R. 4213) became law after Senate action deleted a provision that provided emergency disaster assistance to aquaculture producers for losses associated with high feed input costs during the 2009 calendar year. S. 533 and H.R. 2548 amend the Coastal Zone Management Act to establish a grant program to ensure waterfront access for aquaculture operators and commercial fishermen; on October 20, 2009, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on H.R. 2548. Section 106 of S. 684, Section 208 of S. 3597, and Section 627 of S. 3663 authorize the Coast Guard and NOAA to identify U.S. areas where special navigational measures are warranted to reduce the risk of oil spills and potential damage to natural resources, including aquaculture facilities. H.R. 1983 recodifies Title 53 (Small Business) of the U.S. Code, including disaster assistance programs applicable to commercial fishermen and aquaculture operations. Section 205 of S. 2731 deletes aquaculture from the definition of “agricultural enterprises” for Small Business Administration disaster recovery funds. H.R. 4177 and S. 2810 contain language directing the Secretary of Agriculture to provide assistance to any applicant that produces catfish. S. 3337 and Section 10 of S. 3763 provide technical assistance grants to certain aquaculture organizations for assisting individuals and businesses affected by the Deepwater Horizon oil spill in the Gulf of Mexico to file claims.

### **National Fish Hatchery System**

P.L. 111-5 contains language including National Fish Hatcheries as eligible for \$165 million in resource management funding as well as \$115 million in construction funding for the U.S. Fish and Wildlife Service. Section 8 of S. 313/H.R. 1065 addresses the relationship between the

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domestic production and statistics, see <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1375>.

<sup>34</sup> Available at <http://aquaculture.noaa.gov/about/tenyear.html>.

Department of the Interior and the White Mountain Apache Tribe (WMAT) for the operation and maintenance of the Alchesay-Williams Creek National Fish Hatchery Complex and the WMAT Fishery Center; on January 21, 2010, the Senate Committee on Indian Affairs reported (amended) S. 313, eliminating the hatchery provisions while authorizing the WMAT Settlement Fund for use in fish production, including hatcheries (S.Rept. 111-119). On January 12, 2010, the House Committee on Natural Resources reported (amended) H.R. 1065, eliminating the hatchery provisions while authorizing the WMAT Settlement Fund for use in fish production, including hatcheries (H.Rept. 111-391); the House passed this amended measure on January 21, 2010. Section 201 of H.R. 4347 amends Title IV of the Indian Self-Determination and Education Assistance Act relating to funding agreements with the Quinault Indian Nation for the National Salmon Hatchery located on the Quinault Reservation. H.R. 6115 and S. 3781 direct the Secretary of the Interior to convey the McKinney Lake National Fish Hatchery to the State of North Carolina.

## **Research**

P.L. 111-80, signed into law by President Obama on October 21, 2009, provided \$3.9 million for regional aquaculture centers, \$6.56 million for aquaculture pest and disease management (including \$5.188 million for viral hemorrhagic septicemia), and \$13.913 million in congressionally directed appropriations for aquaculture research and development (including \$1.238 million for viral hemorrhagic septicemia and \$465,000 for cormorant control) for FY2010. S. 3606, reported by the Senate Committee on Appropriations on July 15, 2010 (S.Rept. 111-221), provides \$3.928 million for regional aquaculture centers, \$6.57 million for aquaculture pest and disease management, and \$4.245 million in congressionally directed appropriations for aquaculture research and development (including \$500,000 for viral hemorrhagic septicemia and \$465,000 for cormorant control) for FY2011. As reported (amended) by the Senate Committee on Environment and Public Works on September 20, 2010 (S.Rept. 111-298), Section 4 of S. 3119 authorizes aquaculture of suspension-feeding shellfish or algae for a nutrient bioextraction pilot project in Long Island Sound.

## **Oysters**

Section 124 of Title I, P.L. 111-88 authorized the Secretary of the Interior to extend Drake's Bay Oyster Company's Reservation of Use and Occupancy and associated special use permit within Drake's Estero at Point Reyes National Seashore. H.R. 3852 and S. 1816 include a provision amending Section 117 of the Federal Water Pollution Control Act to prohibit the introduction of Asian oysters in Chesapeake Bay; on November 9, 2009, the Senate Environment and Public Works Subcommittee on Water and Wildlife held a hearing on S. 1816. S. 2273 and Section 2001(a)(194) of H.R. 4380 extend the temporary suspension of duty on oysters (other than smoked), prepared or preserved. H.R. 4022, S. 2735, and S. 2752 prohibit additional requirements for the control of *Vibrio vulnificus* applicable to the post-harvest processing of oysters; in addition, S. 2752 requires an education campaign to increase awareness of the risks associated with consuming raw oysters.

## **Chesapeake Bay**

Section 2 of H.R. 1771/S. 1224 requires the Director of NOAA's Chesapeake Bay Office to establish a Chesapeake Bay coastal living resources management and habitat program to support various activities, including native oyster restoration, fish and shellfish aquaculture, and

submerged aquatic vegetation propagation. The House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on H.R. 1771 on July 8, 2009. The House Committee on Natural Resources reported H.R. 1771 (amended) on September 29, 2009 (H.Rept. 111-271), and the House passed this measure (amended) on September 30, 2009. On February 23, 2010, the Senate Committee on Commerce, Science, and Transportation reported (amended) S. 1224 (S.Rept. 111-126). H.R. 3852 and S. 1816 include a provision amending Section 117 of the Federal Water Pollution Control Act to prohibit the introduction of Asian oysters in Chesapeake Bay. On November 9, 2009, the Senate Environment and Public Works Subcommittee on Water and Wildlife held a hearing on S. 1816.

## **Offshore Aquaculture**

On September 9, 2009, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held an oversight hearing on offshore aquaculture. Section 704 of H.R. 3534 prohibits regional fishery management councils from implementing offshore aquaculture through fishery management plans and their amendments and invalidates any such action already taken; on September 16-17, 2009, the House Committee on Natural Resources held hearings on this measure. On July 28, 2010, the House Committee on Natural Resources reported (amended) H.R. 3534 (H.Rept. 111-575); the House passed this measure on July 30, 2010, after further amendment to remove the aquaculture provision. H.R. 4363 establishes a regulatory system and research program for sustainable offshore aquaculture in the U.S. EEZ. S. 3417 prohibits offshore aquaculture until three years after the submission of a report on its impacts.

## **Food Safety**

H.R. 1370 directs the Secretaries of Commerce and of Health and Human Services to strengthen programs to better ensure that fish in interstate commerce is fit for human consumption. On July 7, 2009, the Senate Committee on Appropriations reported S. 1406, with report language strongly encouraging the Food and Drug Administration to develop a program for increasing the inspection of imported shrimp for banned antibiotics (S.Rept. 111-39).

## **Asian Carp<sup>35</sup>**

S. 1421/H.R. 3173, H.R. 48, and Section 171 of S. 237 amend the Lacey Act to add bighead carp to the list of injurious species that are prohibited from being imported or shipped interstate. On December 3, 2009, the Senate Environment and Public Works Subcommittee on Water and Wildlife held a hearing on S. 1421; on May 5, 2010, the committee reported this measure (S.Rept. 111-181).

## **Delta Smelt**

Section 4 of H.R. 856 authorizes the Secretary of the Interior to enter into a cooperative agreement with the State of California to establish a fish hatchery program for Delta smelt in the Sacramento-San Joaquin Delta.

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<sup>35</sup> For additional information on Asian carp, see CRS Report R41082, *Asian Carp and the Great Lakes Region*, by Eugene H. Buck et al.

## **Algae**

S. 1250, Section 1306 of H.R. 2300/H.R. 2828, Section 2 of H.R. 3460, H.R. 3985, H.R. 4168, and H.R. 5142 amend the Internal Revenue Code to provide benefits for production of algae-based fuel.

## **Marketing**

Section 131 of H.R. 759 amends the Federal Food, Drug, and Cosmetic Act to require labeling as a color additive whenever carbon monoxide is used to treat meat, poultry, and seafood.

# **Marine Mammals**

## **Background**

In 1972, Congress enacted the Marine Mammal Protection Act (MMPA; 16 U.S.C. §§ 1361 et seq.), due in part to the high level of dolphin mortality (estimated at more than 400,000 animals per year) in the eastern tropical Pacific tuna purse-seine fishery. While some critics assert that the MMPA is scientifically irrational because it identifies one group of organisms for special protection unrelated to their abundance or ecological role, supporters note that the MMPA has accomplished much by way of promoting research and increased understanding of marine life as well as encouraging attention to incidental bycatch mortalities of marine life by the commercial fishing and other maritime industries.

The MMPA established a moratorium on the “taking” of marine mammals in U.S. waters and by U.S. nationals on the high seas. It also established a moratorium on importing marine mammals and marine mammal products into the United States. The MMPA protected marine mammals from “clubbing, mutilation, poisoning, capture in nets, and other human actions that lead to extinction.” It also expressly authorized the Secretary of Commerce and the Secretary of the Interior to issue permits for the “taking” of marine mammals for certain purposes, such as scientific research and public display.

Under the MMPA, the Secretary of Commerce, acting through NMFS, is responsible for the conservation and management of whales, dolphins, and porpoises (cetaceans), and seals and sea lions (pinnipeds). The Secretary of the Interior, acting through the Fish and Wildlife Service (FWS), is responsible for walrus, sea and marine otters, polar bears, manatees, and dugongs. This division of authority derives from agency responsibilities as they existed when the MMPA was enacted. Title II of the MMPA established an independent Marine Mammal Commission (MMC) and its Committee of Scientific Advisors on Marine Mammals to oversee and recommend actions necessary to meet the requirements of the MMPA.

Prior to passage of the MMPA, states were responsible for marine mammal management on lands and in waters under their jurisdiction. The MMPA shifted marine mammal management authority to the federal government. It provides, however, that management authority, on a species-by-species basis, could be returned to states that adopt conservation and management programs consistent with the purposes and policies of the MMPA. It also provides that the moratorium on taking can be waived for specific purposes, if the taking will not disadvantage the affected species or population. Permits may be issued to take or import any marine mammal species, including

depleted species, for scientific research or to enhance the survival or recovery of the species or stock. The MMPA allows U.S. citizens to apply for and obtain authorization for taking small numbers of mammals incidental to activities other than commercial fishing (e.g., offshore oil and gas exploration and development) if the taking would have only a negligible impact on any marine mammal species or stock, provided that monitoring requirements and other conditions are met.

The MMPA moratorium on taking does not apply to any Native American (Indian, Aleut, or Eskimo) who resides in Alaska near the coast of the North Pacific (including the Bering Sea) or Arctic Ocean (including the Chukchi and Beaufort Seas), if such taking is for subsistence or for creating and selling authentic Native articles of handicrafts and clothing, and is not done wastefully.

The MMPA also authorizes the taking of marine mammals incidental to commercial fishing operations. In 1988, most U.S. commercial fish harvesters were exempted from otherwise applicable rulemaking and permit requirements for a five-year period, pending development of an improved system to govern the incidental taking of marine mammals in the course of commercial fishing operations. This exemption expired at the end of FY1993, and was extended several times until new provisions were enacted in 1994 by P.L. 103-238, which reauthorized the MMPA through FY1999. The eastern tropical Pacific tuna fishery was excluded from the incidental take regimes enacted in 1988 and 1994. Instead, the taking of marine mammals incidental to that fishery is governed by separate provisions of the MMPA, and was substantially amended in 1997 by P.L. 105-42, the International Dolphin Conservation Program Act.

Section 319 of P.L. 108-136 amended the MMPA to provide a broad exemption for “national defense” activities. This section also amended the definition of “harassment” of marine mammals, as it applies to military readiness activities, to require greater scientific evidence of harm, and the consideration of impacts on military readiness in the issuance of permits for incidental takings.<sup>36</sup> The Navy’s use of mid-frequency sonar and its possible effects on marine mammals has been the focus of much controversy and litigation.<sup>37</sup>

## **Marine Mammal Protection Act Reauthorization**

The MMPA was reauthorized by P.L. 103-238, the Marine Mammal Protection Act Amendments of 1994; the authorization for appropriations expired on September 30, 1999. The 1994 amendments indefinitely authorized the taking of marine mammals incidental to commercial fishing operations and provided for assessing marine mammal stocks in U.S. waters, for developing and implementing take-reduction plans for stocks that have been reduced or are being maintained below their optimum sustainable population levels due to interactions with commercial fisheries, and for studying pinniped-fishery interactions.<sup>38</sup>

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<sup>36</sup> For more background, see CRS Report RS22149, *Exemptions from Environmental Law for the Department of Defense (DOD)*, by David M. Bearden.

<sup>37</sup> For more background, see CRS Report RL34403, *Whales and Sonar: Environmental Exemptions for the Navy’s Mid-Frequency Active Sonar Training*, by Kristina Alexander, and CRS Report RL33133, *Active Military Sonar and Marine Mammals: Events and References*, by Eugene H. Buck and Kori Calvert.

<sup>38</sup> For more background and information on the 1994 amendments, see out-of-print CRS Report 94-751 ENR, *Marine Mammal Protection Act Amendments of 1994*, by Eugene H. Buck, available from the author at [gbuck@crs.loc.gov](mailto:gbuck@crs.loc.gov).

A December 2008 study by the Government Accountability Office (GAO) found that limitations in information available make it difficult for NMFS to accurately determine which marine mammal stocks meet the statutory requirements for establishing take reduction teams.<sup>39</sup> GAO found that NMFS did not have a human-caused mortality estimate or a maximum removal level for 39 of 113 marine mammal stocks, making it impossible to determine their strategic status in accordance with MMPA requirements. For the remaining 74 stocks, NMFS data have significant limitations that call into questions their accuracy. NMFS contends that funding constraints limit their ability to gather sufficient data. In addition, NMFS has not established take reduction teams for 14 marine mammal stocks for which NMFS data show them to be strategic and interacting significantly with commercial fisheries.

In 111<sup>th</sup> Congress on April 27, 2010, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held an oversight hearing on marine mammals in captivity and what constitutes meaningful public education. No bills have been introduced in the 111<sup>th</sup> Congress to reauthorize the MMPA.<sup>40</sup> In the 111<sup>th</sup> Congress, a number of bills have been introduced proposing to amend the MMPA:

- H.R. 1054/S. 1395 amend the MMPA to allow imports of polar bear trophies taken in sport hunts in Canada before the date the polar bear was listed as a threatened species under the Endangered Species Act; on September 22, 2009, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on H.R. 1054. H.R. 1055 amends the MMPA to allow imports of polar bear trophies taken in sport hunts in Canada.
- H.R. 844 and S. 859 reauthorize and amend the MMPA provisions relating to the John H. Prescott Marine Mammal Rescue Assistance Grant Program; the House passed H.R. 844 on March 2, 2009, and the Senate Committee on Commerce, Science, and Transportation reported S. 859 on August 6, 2009 (S.Rept. 111-70).
- Section 4 of H.R. 5863 prohibits the approval of oil and gas exploration and/or development/production plans unless the Secretary certifies MMPA compliance; Section 6 of this measure requires the Secretary to consider cumulative effects on marine mammal stocks and their subsistence use. Section 101 of H.R. 5899 declares that the draft OCS leasing program for 2010-2015 fully complies with the MMPA.
- H.R. 843 amends the MMPA to repeal the long-term goal for reducing the incidental mortality and serious injury of marine mammals to zero in commercial fishing operations, and to modify the goal of take reduction plans for reducing such takings.
- Section 30 of H.R. 1108 directs the Secretary of the Interior to establish regional OCS Joint Permitting Offices, with expertise in MMPA consultations and preparation of documents.

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<sup>39</sup> U.S. Government Accountability Office, *Improvements Are Needed in the Federal Process Used to Protect Marine Mammals from Commercial Fishing*, GAO-09-78 (December 8, 2008). Available at <http://www.gao.gov/new.items/d0978.pdf>.

<sup>40</sup> For background on possible reauthorization issues, see CRS Report RL30120, *The Marine Mammal Protection Act: Reauthorization Issues*, by Eugene H. Buck.

- H.R. 4914 and S. 3528 promote coastal jobs creation in activities including cooperative research to collect data to improve, supplement, or enhance marine mammal stock assessments. On July 27, 2010, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on H.R. 4914.
- H.R. 2029 authorizes the Marine Mammal Commission to establish a national research program to fund basic and applied research on marine mammals.

## **Additional Marine Mammal Issues in the 111<sup>th</sup> Congress**

### **Whales and Whaling**

H.R. 2455 and S. 3116 amend the Whale Conservation and Protection Study Act to promote international whale conservation, protection, and research. On May 6, 2010, the House Foreign Affairs Subcommittee on International Organizations, Human Rights, and Oversight and Subcommittee on Asia, the Pacific, and the Global Environment held a joint hearing on H.R. 2455, proposing to amend the Whale Conservation and Protection Study Act to promote international whale conservation, protection, and research. H.R. 2955 amends the Whaling Convention Act of 1949 to require that the United States Commissioner to the International Whaling Commission be a federal employee. H.R. 4137 authorizes the Secretary of the Interior to provide preservation and interpretation assistance to the New Bedford Whaling National Historical Park in Massachusetts. H.Res. 1390 expresses the sense of the House that the United States should use its position of global leadership to strengthen whale conservation efforts and to ensure that commercial, scientific, and other lethal whaling does not occur for any purpose other than aboriginal subsistence.

### **Climate Change**

H.R. 2192; Title IV, Subtitle E, Part 1, Subpart C, of H.R. 2454/H.R. 2998; Division A, Title III, Subpart C, of S. 1733; and S. 1933 authorize funding for efforts to strengthen and restore habitat to improve the ability of wildlife to adapt successfully to climate change.<sup>41</sup> The House Committee on Energy and Commerce held hearings on H.R. 2454 on May 18-21, 2009, and reported this measure (amended) on June 5, 2009 (H.Rept. 111-137, Part I). On June 26, 2009, the House passed H.R. 2454 (amended). The Senate Committee on Environment and Public Works held a hearing on S. 1733 on October 27-29, 2009, and reported this bill (amended) on February 2, 2010 (S.Rept. 111-121).

### **Southern Sea Otter**

H.R. 556 and S. 1748 establish a research program for the recovery of the southern sea otter; the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on H.R. 556 on May 5, 2009. The House Committee on Natural Resources reported H.R. 556 (amended) on June 23, 2009 (H.Rept. 111-175), and the House passed this measure (amended) on

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<sup>41</sup> For additional information, see CRS Report R40911, *Comparison of Climate Change Adaptation Provisions in S. 1733 and H.R. 2454*, coordinated by Melissa D. Ho.

July 28, 2009. On June 9, 2010, the Senate Committee on Commerce, Science, and Transportation ordered S. 1748 reported (amended).

### **Habitat Protection**

S. 1252 amends and reauthorizes the Oceans and Human Health Act through FY2014; on September 20, 2010, the Senate Committee on Commerce, Science, and Transportation reported (amended) this measure (S.Rept. 111-296). S. 3584 directs NOAA to research oil spill prevention and response in the Arctic waters, including assessment of impacts on Arctic marine mammals, marine debris research and removal, and risk assessment. S. 3597 seeks to improve the ability of the National Oceanic and Atmospheric Administration, the Coast Guard, and coastal states to sustain healthy ocean and coastal ecosystems relative to oil spills; the Senate Committee on Commerce, Science, and Transportation ordered this measure reported (amended) on July 27, 2010. Section 225 of H.R. 3534, as passed by the House on July 30, 2010, and Section 6 of H.R. 5863 amend the Outer Continental Shelf Lands Act to require an assessment of the cumulative impacts of OCS oil and gas exploration and development on marine mammal stocks and subsistence use.

### **Dolphin Protection**

H.R. 1080 amends the Dolphin Protection Consumer Information Act to strengthen enforcement mechanisms to stop illegal, unreported, and unregulated fishing; on March 19, 2009, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on this bill, and on July 24, 2009, the House Committee on Natural Resources reported this measure, amended (H.Rept. 111-228). The House passed H.R. 1080 (amended) on September 22, 2009.

### **Polar Bears**

H.R. 5379 delists the polar bear as a threatened species under the Endangered Species Act. H.Res. 1420 expresses the sense of the House urging parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora to adopt stronger protections for the polar bear at the 16<sup>th</sup> meeting of the Conference of the Parties in 2013.

### **Seals**

S.Res. 84 and H.Res. 1314 urge (1) Canada to halt its commercial seal hunt and (2) other countries to prohibit trade in seal products; on May 7, 2009, the Senate agreed to S.Res. 84 after it had been reported by the Senate Committee on Foreign Relations.

### **Military Sonar**

H.R. 672 restricts the use of military and national security exemptions to MMPA restrictions on marine mammal taking.

## NMFS Appropriations

On February 1, 2010, the Obama Administration released its FY2011 budget request, including about \$973 million for NMFS. (See **Table 1.**) The FY2011 request for NMFS funding within NOAA's Operations, Research, and Facilities (OR&F) Account was \$3.238 million (+0.4%) more than funding enacted for FY2010. Total NMFS funding was proposed to decrease by \$11.412 million (-1.2%) from that enacted for FY2010, primarily due to a proposed reduction of \$15 million for the Pacific Coastal Salmon Recovery Fund.<sup>42</sup> On February 24, 2010, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held an oversight hearing on NOAA's FY2011 budget request. On March 3, 2010, the Senate Commerce, Science, and Transportation Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard held an oversight hearing on NOAA's FY2011 budget request. On July 22, 2010, the Senate Committee on Appropriations reported S. 3636, recommending about \$909 million for NMFS within NOAA's OR&F Account for FY2011 (S.Rept. 111-229); the Senate Committee recommendation is \$4.49 million (+0.5%) more than the FY2010 appropriation and \$1.252 million (+0.1%) more than the FY2011 Administration request. The Senate Committee recommended that total NMFS funding be increased by \$4.84 million (+0.5%) from that enacted for FY2010.

**Table 1. NMFS Appropriations, FY2009-FY2011**

(in thousands of dollars)

|                                           | <b>FY2010<br/>Request</b> | <b>FY2010<br/>Enacted</b> | <b>FY2011<br/>Request</b> | <b>FY2011<br/>S.Rept.</b> |
|-------------------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Fisheries                                 | 499,949                   | 512,097                   | 537,263                   | 536,744                   |
| Protected Species                         | 243,538                   | 201,577                   | 210,251                   | 213,632                   |
| Habitat Conservation                      | 44,023                    | 50,343                    | 54,918                    | 52,443                    |
| Enforcement Surveillance                  | 103,132                   | 106,747                   | 105,345                   | 106,210                   |
| Cong.-Directed Projects                   |                           | 33,775                    |                           |                           |
| <b>SUBTOTAL (OR&amp;F)</b>                | <b>890,642</b>            | <b>904,539</b>            | <b>907,777</b>            | <b>909,029</b>            |
| Procurement, Acquisition,<br>Construction | 0                         | 0                         | 0                         | 0                         |
| Pacific Coastal Salmon Recovery           | 0 <sup>a</sup>            | 80,000                    | 65,000                    | 80,000                    |
| Other Accounts                            | 21,110                    | 0                         | 350                       | 350                       |
| <b>TOTAL</b>                              | <b>911,752</b>            | <b>984,539</b>            | <b>973,127</b>            | <b>989,379</b>            |

**Sources:** Budget Justifications, House and Senate Committee Reports, and floor debate.

- a. The Administration's budget request proposed to transfer \$50 million from species recovery grants within NMFS to fund activities within the Pacific Coastal Salmon Recovery account.

On June 12, 2009, the House Committee on Appropriations reported H.R. 2847, recommending FY2010 appropriations of almost \$916 million for NMFS (H.Rept. 111-149). The House recommendation was about 4.2% greater than the FY2009 enacted level and about 0.5% larger than the FY2010 Administration request. The House passed this measure on June 18, 2009. On

<sup>42</sup> For more details on NMFS's FY2011 budget request, see [http://www.corporateservices.noaa.gov/nbo/11bluebook\\_highlights.html](http://www.corporateservices.noaa.gov/nbo/11bluebook_highlights.html).

June 25, 2009, the Senate Committee on Appropriations reported (amended) H.R. 2847, recommending FY2010 appropriations of more than \$952 million for NMFS (S.Rept. 111-34). The Senate recommendation was about 8.4% greater than the FY2009 enacted level, about 4.5% more than the FY2010 Administration request, and about 4.0% larger than the House FY2010 recommendation. The Senate passed H.R. 2847 (amended) on November 5, 2009. A conference report on H.R. 3288 (an omnibus measure including the material formerly in H.R. 2847) was filed on December 8, 2009 (H.Rept. 111-366), including more than \$984 million for NMFS and related programs. President Obama signed P.L. 111-117 into law on December 16, 2009.

P.L. 111-212 (emergency supplemental appropriations; H.R. 4899) provided (1) \$5 million for expenses related to commercial fishery failures as determined by the Secretary of Commerce in January 2010; (2) \$13 million for responding to economic impacts on fishermen and fishery-dependent businesses; (3) \$7 million for scientific investigations and sampling as a result of the incidents related to the discharge of oil and the use of oil dispersants in 2010 after the explosion and sinking of the mobile offshore drilling unit Deepwater Horizon; (4) \$15 million for fisheries disaster relief under Section 312 of the MSFCMA related to a fishery resource disaster in the Gulf of Mexico that resulted from the Deepwater Horizon oil discharge; (5) \$10 million to conduct an expanded stock assessment of the fisheries of the Gulf of Mexico; and (6) \$1 million for the National Academy of Sciences to study of the long-term ecosystem service impacts of the Deepwater Horizon oil discharge.

## FWS Appropriations

The FWS budget account for “fisheries and aquatic resource conservation” includes funding for the National Fish Hatchery operations, aquatic invasive species programs, and marine mammal programs. These programs employ about 800 individuals, located at 70 National Fish Hatcheries, 65 Fish and Wildlife Conservation Offices, one historic National Fish Hatchery, nine Fish Health Centers, and seven Fish Technology Centers.

On February 1, 2010, the Obama Administration released its detailed budget request for FY2011, including about \$142.5 million for FWS fisheries and aquatic resource conservation programs, which is about \$5.7 million (-3.9%) less than was enacted for FY2010. Most of the reductions in funding occur in the line items for National Fish Hatchery operations and aquatic invasive species. **Table 2** summarizes recent fisheries and aquatic resource conservation funding for FWS.<sup>43</sup> On March 4, 2010, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held an oversight hearing on the FY2011 FWS budget.

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<sup>43</sup> For additional details on the FY2011 budget request for fisheries and aquatic resources, see <http://www.fws.gov/budget/2011/FWS%20-%20FY11%20Greenbook%20Final%202-4-10.pdf>.

**Table 2. FWS Appropriations, FY2009-FY2011**  
(in thousands of dollars)

|                                                        | <b>FY2009<br/>Enacted</b> | <b>FY2010<br/>Request</b> | <b>FY2010<br/>Enacted</b> | <b>FY2011<br/>Request</b> |
|--------------------------------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| <b>Fisheries and Aquatic<br/>Resource Conservation</b> | 131,831                   | 140,695                   | 148,214                   | 142,477                   |

**Sources:** Budget justifications, House and Senate Committee Reports, and floor debate.

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