



Fishery, Aquaculture, and Marine Mammal Issues in the 112th 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. Aquaculture or fish farming enterprises seek to supplement food traditionally provided by wild harvests.

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 in the federal exclusive economic zone (EEZ), the federal government (National Marine Fisheries Service, NMFS) 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 112th Congress may oversee implementation of the MSFCMA as well as address individual habitat and management concerns for U.S. commercial and sport fisheries in an attempt to modify the balance between resource use and protection. Additional concerns might include providing additional flexibility in managing harvests to eliminate overfishing; determining the appropriate level of funding for fishery disaster assistance; determining whether to modify fishing vessel capacity reduction and limited access privilege (catch-share) programs; modifying programs to better control bycatch of nontarget species; amending various fishery laws to strengthen enforcement to stop illegal, unreported, and unregulated fishing; amending and reauthorizing the Oceans and Human Health Act; amending and reauthorizing the Coral Reef Conservation Act; enhancing efforts to monitor, restore, and protect marine ecosystems in the Gulf of Mexico; implementing the Antigua Convention for eastern tropical Pacific tuna; authorizing a national strategy to address harmful algal blooms and hypoxia; and providing additional support to maintain the character of traditional fishing communities.

Aquaculture—the farming of fish, shellfish, and other aquatic animals and plants in a controlled environment—is expanding rapidly abroad, yet with little growth in the United States. In the United States, important species cultured include catfish, salmon, shellfish, and trout. The 112th Congress may consider whether National Oceanic and Atmospheric Administration policies and regulations can balance development and regulation of the aquaculture industry in the U.S. EEZ, and whether to prohibit regional fishery management councils from authorizing aquaculture in federal offshore waters through fishery management plans and their amendments under the MSFCMA.

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 permits are obtained. It also addresses specific situations of concern, such as dolphin mortality associated with the eastern tropical Pacific tuna fishery. The 112th Congress may consider bills to amend the MMPA, including the John H. Prescott Marine Mammal Rescue Assistance Grant Program, 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 and an expanded research program for the recovery of the southern sea otter.

The level of appropriations for fisheries, aquaculture/hatchery, and marine mammal programs administered by the NMFS and the Fish and Wildlife Service may be an issue during the 112th Congress amid pressures to reduce federal spending.

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Most Recent Developments

On September 15, 2011, a World Trade Organization panel ruled that “dolphin-safe” labels used to market tuna in the United States were illegal because they are too restrictive of trade. On September 15, 2011, the Senate passed H.R. 2887, proposing to extend 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 31, 2012. On September 15, 2011, the Senate Committee on Appropriations reported S. 1572, proposing about \$877 million for NMFS programs in FY2012. On September 15, 2011, the House Natural Resources Subcommittee on National Parks, Forests, and Public Lands held a hearing on H.R. 2351, proposing to direct 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. On September 13, 2011, the House passed H.R. 2887. On September 9, 2011, the House Natural Resources Subcommittee on National Parks, Forests, and Public Lands held hearings on (1) H.R. 2834, proposing to direct federal public land management officials to facilitate use of and access to federal public lands and waters for fishing, and (2) H.R. 1444, proposing to require that fishing be a recognized use in management plans for federal lands under the jurisdiction of the Secretary of the Interior or the Secretary of Agriculture. On September 7, 2011, the Senate Committee on Appropriations reported H.R. 2354 (amended), including provisions that would (1) authorize the Corps of Engineers to take emergency measures (not including hydrologic separation) to exclude Asian carp from the Great Lakes and (2) authorize the Corps of Engineers to transfer to the Fish and Wildlife Service as much as \$3,800,000 for National Fish Hatcheries to mitigate for fisheries lost due to Corps of Engineers projects. On September 7, 2011, the Senate Committee on Appropriations reported H.R. 2112, without the provision that was in the House-passed version of this bill prohibiting FDA activities related to the approval of genetically engineered salmon. (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 and requesting to be added to the notification list.)

Introduction

Increasing use of marine resources is driving proposals for Congress and the Administration to alter current relationships between environmental protection and sustainable resource management. In response to reports by the U.S. Commission on Ocean Policy and the Pew Oceans Commission noting 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,¹ the Obama Administration released the final recommendations of its Ocean Policy Task Force on July 19, 2010.² A further concern is the increasing pressures and conflicts that arise from economic activity associated with continued human population growth. A common concern is habitat loss or alteration, due both to natural processes, such as climate variation and ocean

¹ See *An Ocean Blueprint for the 21st Century*, http://www.oceancommission.gov/documents/full_color_rpt/000_ocean_full_report.pdf, and *America's Living Oceans: Charting a Course for Sea Change*, http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/Reports/Protecting_ocean_life/env_pew_oceans_final_report.pdf.

² See http://www.whitehouse.gov/files/documents/OPTF_FinalRecs.pdf.

acidification, and to development, competition from invasive species, and other factors, primarily related to economic and social interests. Congress faces the issues of how to balance these diverse interests (which may fall on various sides of any given controversy), and whether to alter current laws that promote the sustainable management of fishery and other marine resources and protect the marine environment.

The primary laws governing fisheries, aquaculture, and marine mammals are the MSFCMA (16 U.S.C. §§1801 et seq.), the National Aquaculture Act of 1980 (16 U.S.C. §§2801 et seq.), and the Marine Mammal Protection Act (MMPA; 16 U.S.C. §§1361 et seq.). Congress last reauthorized and extensively amended the MSFCMA in the 109th 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 112th Congress may consider measures to reauthorize the MMPA, address aquatic habitat concerns, provide funding for disaster assistance, consider whether to provide greater flexibility in rebuilding fish populations, and address fishery-specific concerns, as well as conducting oversight of MSFCMA implementation.

Commercial and Sport Fisheries

Background

Historically, coastal states managed marine sport and commercial fisheries in nearshore waters, where almost all 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 (e.g., by enacting laws implementing treaties, such as was done by the Northern Pacific Halibut Act in 1937) as well as to interstate fishery conflicts (e.g., by consenting to interstate fishery compacts, such as was accomplished by enactment of 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,³ 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 negotiations in the early and mid-1970s as well as actions by other coastal nations provided impetus for unilateral U.S. action.⁴

Such unilateral action occurred when the United States enacted the Fishery Conservation and Management Act (FCMA); later renamed the Magnuson Fishery Conservation and Management

³ Subsequently 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.

⁴ The United Nations Convention on the Law of the Sea was reported favorably in the 110th Congress by the Senate Committee on Foreign Relations (S.Exec.Rept. 110-9) on December 19, 2007.

Act and more recently the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), ushering 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. This 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).

With the enactment of the FCMA, 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.⁵ In addition, the FCMA established eight Regional Fishery Management Councils,⁶ with members appointed by the Secretary of Commerce from lists provided by coastal state governors of candidates knowledgeable about fishery resources.⁷ Each regional council prepares fishery management plans (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 more than 40 FMPs for various fish and shellfish resources, with additional FMPs 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 more than 30 times), and three have been developed and implemented jointly by two or more councils.

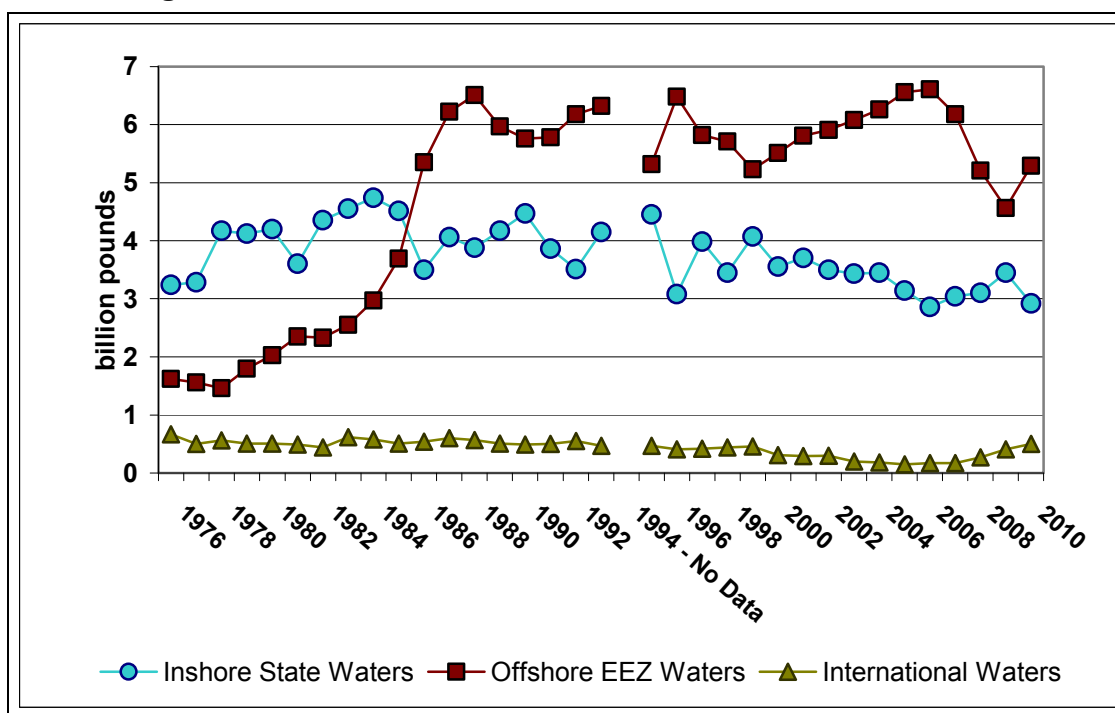
Under initial FCMA authority, a substantial portion of the fish caught from federal offshore waters was allocated to foreign fishing fleets. However, the 1980 American Fisheries Promotion Act (Title II of P.L. 96-561) and other FCMA amendments orchestrated a decrease in foreign catch allocations as domestic 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 1986-1988.⁸ After this peak, annual landings hovered around 6 billion pounds until about 2006, when Bering Sea pollock stocks began a decline and increased efforts to reduce overfishing in federal EEZ waters began to take effect (**Figure 1**).

⁵ NMFS programs are described in detail at <http://www.nmfs.noaa.gov/>.

⁶ Links to individual council websites are available at <http://www.nmfs.noaa.gov/councils/>.

⁷ For the 2010 report to Congress on council membership, see http://www.nmfs.noaa.gov/sfa/reg_svcs/Council_Reporttocongress/2010ApportionmentReportToCongress.pdf.

⁸ 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.).

Figure 1. U.S. Commercial Fish and Shellfish Harvest, 1976-2010

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

Current Performance Measures

The economic status of U.S. commercial fisheries is updated and reported annually.⁹ In 2010 (the most recent data available), U.S. commercial fishermen landed 6.5 billion pounds of edible, unprocessed fish and shellfish from combined state, federal, and international waters, worth almost \$4.4 billion at the dock. U.S. imports of mostly processed products supplied 5.5 billion pounds, worth \$14.8 billion. U.S. consumers spent an estimated \$80.2 billion on edible seafood in 2010, with \$54 billion of that amount spent in restaurants and other food service establishments. In addition, marine recreational anglers caught an estimated 357 million fish in 2010, of which the retained catch was about 197 million pounds.¹⁰ In 2006 (the most recent data available), a nationwide survey, conducted every five years, estimated that recreational anglers spent more than \$40 billion annually pursuing their sport.¹¹

NMFS reports annually on the status of fish stocks managed under the MSFCMA through two determinations.¹² For 2010, NMFS made determinations for 253 fish stocks and complexes,¹³ finding that 40 (16%) of them were subject to overfishing¹⁴ and 213 (84%) were not. In addition,

⁹ For additional information on domestic commercial fisheries, see <http://www.st.nmfs.noaa.gov/st1/commercial/index.html>. Additional data for 2009 are available at http://www.st.nmfs.noaa.gov/st1/fus/fus10/fus_2010.pdf.

¹⁰ Recreational fishing programs at NMFS are discussed at <http://www.st.nmfs.noaa.gov/st1/recreational/index.html>.

¹¹ Results of the 2006 survey can be found at http://library.fws.gov/pubs/nat_survey2006_final.pdf.

¹² See http://www.nmfs.noaa.gov/sfa/statusoffisheries/2010/2010_Report_to_Congress.pdf.

¹³ NMFS reviewed 528 individual stocks and stock complexes but had insufficient information to make determinations on all of them.

¹⁴ A stock that is subject to overfishing has a fishing mortality (harvest) rate greater than the level that provides for the (continued...)

NMFS made separate determinations for 207 stocks and complexes, finding that 48 (23%) were overfished¹⁵ and 159 (77%) were not. These numbers reflect a slight increase in the overfishing percentage compared to 2009 (when 15% were subject to overfishing) as well as a stable overfished percentage compared to that year (when 23% were overfished). In 2005, NMFS began using these same fish stock status data to portray nationwide progress in addressing overfishing through a numerical Fish Stock Sustainability Index (FSSI).¹⁶ Out of a possible maximum FSSI score of 920, this index of success in curbing overfishing has increased (i.e., improved) from 481.5 (third quarter of calendar year 2005) to 583 (first quarter of calendar year 2011).

Magnuson-Stevens Act

The MSFCMA was reauthorized in the 109th Congress by P.L. 109-479, the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006.¹⁷ Some of the major issues addressed by this comprehensive measure included

- modifying requirements for appointing and training members of regional councils as well as for conducting 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 coordination of environmental review under the National Environmental Policy Act (NEPA; 42 U.S.C. §§4321, et seq.);
- strengthening the role of science in fishery management decision-making; and
- authorizing appropriations for federal fishery management through FY2013.¹⁸

(...continued)

maximum sustainable yield from this stock.

¹⁵ A stock that is overfished has a biomass level less than a biological threshold specified in that stock's FMP.

¹⁶ 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 http://www.nmfs.noaa.gov/sfa/statusoffisheries/2011/first/FSSI_SummaryChanges_Q1_2011.pdf.

¹⁷ For additional summary information on this measure, see <http://www.nmfs.noaa.gov/msa2005/MSA%202006%20Implementation%20Overview.pdf>.

¹⁸ For additional highlights and commentary on this enactment, see <http://cbbulletin.com/Free/199763.aspx>; a detailed (continued...)

NMFS has summarized various tasks associated with implementing P.L. 109-479.¹⁹ Examples of implementation activities include (1) a report by NMFS to Congress on implementing new provisions relating to better control of illegal, unreported, and unregulated (IUU) fishing activities;²⁰ and (2) final guidance amending National Standard 1, designed to end overfishing through new requirements for annual catch limits and other accountability measures.²¹ In addition, NMFS released a new national policy encouraging the consideration and use of catch shares as an alternative to managing fisheries through open access harvesting.²²

The 112th Congress may continue oversight of implementation of the 2006 amendments to the MSFCMA, including progress on addressing overfishing and restoring overfished stocks and controlling bycatch of non-target species. Legislation may be considered to address regional marine habitat and fishery management concerns to balance interests in promoting both sustainable resource use and habitat protection. Particular legislative attention may be focused on providing additional flexibility in managing harvests to eliminate overfishing while providing additional support to maintain the character of traditional coastal fishing communities. As the 112th Congress faces daunting fiscal concern, attention might be given to determining the appropriate level of fishery disaster assistance that might be authorized and appropriated. To address economic concerns of the commercial fishing industry, the 112th Congress might consider legislation determining whether to encourage additional or modify existing fishing vessel capacity reduction and limited access privilege (catch share) programs.

P.L. 112-10 included language at Section 1349, Division B, prohibiting FY2011 expenditures to approve new limited-access privilege programs under the MSFCMA for any fishery under the jurisdiction of the South Atlantic, Mid-Atlantic, New England, or Gulf of Mexico Fishery Management Council. On March 8, 2011, the Senate Committee on Commerce, Science, and Transportation held an oversight hearing on evaluating the success of the MSFCMA in preventing overfishing and rebuilding depleted fish populations. On June 20, 2011, the Senate Committee on Homeland Security and Government Affairs, Subcommittee on Federal Financial Management, held a hearing on the NMFS's actions to improve its enforcement program and how NMFS is managing funds to support the domestic fishing industry. On July 26, 2011, the House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs held an oversight hearing on NOAA's fishery science and its effect on jobs. In addition, bills introduced in the 112th Congress address a number of issues.

- S. 238 would amend MSFCMA to require that annual fishery impact statements evaluate the effects of management actions on fishing communities.
- H.R. 1013 would amend MSFCMA to provide the New England Fishery Management Council additional resources from the Asset Forfeiture Fund to address research and monitoring priorities established by the council. S. 1304 would make funds available to reimburse certain fishermen for legal fees and costs incurred in connection with improper fines. S. 1312 would establish a

(...continued)

summary of enacted provisions is available at <http://www.olemiss.edu/orgs/SGLC/National/Magnuson.pdf>.

¹⁹ Available at 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/>.

²⁰ Available at http://www.nmfs.noaa.gov/msa2007/docs/biennial_report011309.pdf.

²¹ 74 *Federal Register* 3178-3213, January 16, 2009.

²² See http://www.nmfs.noaa.gov/sfa/domes_fish/catchshare/docs/noaa_cs_policy.pdf.

fisheries investment fund to assist fishermen with the costs of regulatory compliance and to reimburse the legal fees incurred by certain fishermen. H.R. 2610 would amend the MSFCMA to reform procedures for the payment of funds from the Asset Forfeiture Fund.

- S. 632 would amend MSFCMA to extend the authorized period for rebuilding of certain overfished fisheries.
- H.R. 1646 would amend MSFCMA to (1) require peer review of certain scientific and statistical committee recommendations, (2) modify criteria for extending the rebuilding period for overfished fisheries, (3) set a deadline for secretarial decisions on disaster declarations, (4) modify criteria for limited-access privilege program approval, and (5) establish criteria to be met before a fishery can be closed. H.R. 2772 would amend MSFCMA to permit eligible fishermen to approve certain limited access privilege programs.
- H.R. 2304 would amend MSFCMA to modify how scientific information is to be used in implementing annual catch limits.
- S. 1371 would amend MSFCMA to add Rhode Island to the Mid-Atlantic Fishery Management Council.
- H.R. 2753 would amend MSFCMA to require Internet access to Regional Fishery Management Council meetings and meeting records.
- Section 308 of H.R. 2838 would require a report from the Secretary of Homeland Security assessing the need for additional Coast Guard capability in the high latitude regions, including for fisheries enforcement.

Pacific Salmon

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 or stocks intermingle on fishing grounds. In addition to natural environmental fluctuations, factors influencing the abundance of 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.

The Northwest Power and Conservation Council took the lead in the Columbia River Basin under the 1980 Pacific Northwest Electric Power Planning and Conservation Act, by attempting to protect salmon and their habitat while also providing inexpensive electric power to the region. Under this effort, federal agencies and public utilities have spent hundreds of millions of dollars on technical improvements for dams, habitat enhancement, and water purchases to improve salmon survival. Recent years have seen an increased interest by state governments and tribal councils in developing comprehensive salmon management efforts.

In response to declining salmon populations in Washington, Oregon, Idaho, and California, discrete population units were listed as endangered or threatened species under the Endangered Species Act.²³ In 2006, a San Joaquin River Restoration Settlement Agreement ended an 18-year legal dispute over the operation of Friant Dam in California that had eliminated salmon from much of this river. 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 water supply losses to Friant Division long-term water contractors that may result from restoration flows provided in the agreement. Congress authorized the implementation of this agreement through P.L. 111-11. In 2010, two agreements were concluded for the Klamath River Basin to address fishery and water supply issues.

Issues in the 112th Congress may include measures to better protect freshwater and coastal habitat from a multitude of threats and improve habitat quality so as to benefit Pacific salmon. Under the authority of the Pacific Salmon Treaty with Canada, additional efforts might be made to improve coordination of salmon management with Canada. In addition, expanded survey and research initiatives might be authorized to obtain additional environmental data to improve understanding of oceanic factors affecting salmon abundance. The 112th Congress might act to authorize targeted salmon restoration programs, such as implementation of the Klamath River agreements. Oversight of the San Joaquin Restoration Settlement, operation of the federal Central Valley Project, and pumping of water from the Sacramento River Delta may also be topics of interest for the 112th Congress.

On May 3, 2011, the House Committee on Agriculture and Committee on Natural Resources held a joint oversight hearing on pesticide registration consultations under Section 7 of the Endangered Species Act (ESA) related to ESA-listed salmon. Several bills introduced in the 112th Congress may affect Pacific salmon.

- Section 305(b) of S. 52 would reauthorize the Pacific Salmon Treaty Act through FY2013; On May 5, 2011, the Senate Committee on Commerce, Science, and Transportation ordered this bill reported, amended.
- H.R. 1 (seeking to provide continuing appropriations for the remainder of FY2011) includes language that would limit funding for the Pacific Coastal Salmon Recovery Fund to \$50 million (Section 1307, Division B, Title III) and prohibit funds from being used by NMFS and FWS for implementing certain actions described in a biological opinion for the operations of the Central Valley Project and the California State Water Project (Section 1475, Division B, Title IV).
- H.R. 946 would amend MMPA to permit activities aimed at reducing marine mammal predation on endangered Columbia River salmon; on June 14, 2011, the House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs held a hearing on this bill.
- H.R. 1251 and Section 108 of H.R. 1837 would provide congressional direction for Endangered Species Act (ESA) implementation as it relates to operation of the Central Valley Project and the California State Water Project; in addition, H.R. 1837 would repeal the San Joaquin Restoration Settlement (§203) and order

²³ 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.

that no distinction be made under ESA between anadromous fish of wild and hatchery origin in the Sacramento and San Joaquin Rivers and their tributaries (§207). On June 2 and 13, 2011, the House Natural Resources Subcommittee on Water and Power held hearings on H.R. 1837. Section 308 of H.R. 1287 and S. 706 would prohibit the Bureau of Reclamation and California state agencies from restricting operations for the Central Valley Project pursuant to any ESA biological opinion under certain conditions.

- S. 962 and H.R. 1858 would reauthorize and amend the Northwest Straits Marine Conservation Initiative Act, including authorizing county Marine Resources Committees; one duty of these committee would be to assist in identifying local implications, needs, and strategies associated with the recovery of Puget Sound salmon. On June 8, 2011, the Senate Committee on Commerce, Science, and Transportation ordered S. 962 reported.
- H.R. 2111 would (1) require a study by the National Academy of Sciences of federal salmon recovery actions on the Columbia and Snake Rivers and (2) declare that the Secretary of the Army may remove the four Lower Snake River dams.
- On July 15, 2011, the House passed H.R. 2354 (amended), after adopting a floor amendment (appearing in Section 614) that would prohibit Corps of Engineers funding for activities related to the removal of Condit Dam on the White Salmon River in Washington. This provision was not included when the Senate reported this bill on September 7, 2011 (S.Rept. 112-75).
- S. 1401 would establish a Salmon Stronghold Partnership to promote international and interagency cooperation to improve salmon management.

Additional Fishery Issues in the 112th Congress

Additional fishery concerns that could be addressed in the 112th Congress include several measures that were introduced and acted upon favorably by the 111th Congress, but were not enacted before that Congress adjourned. In response to the *Deepwater Horizon* oil spill in 2010, efforts might be made in the 112th Congress to enhance efforts to monitor, restore, and protect marine ecosystems in the Gulf of Mexico. Several additional issues that were unresolved in the 111th Congress might receive consideration in the 112th Congress, including amending and reauthorizing the Oceans and Human Health Act and authorizing a national strategy to address harmful algal blooms and hypoxia in coastal waters.

Legislation has been introduced in the 112th Congress to address several issues related to fisheries.

Habitat Protection and Restoration

Section 11 of S. 203 would amend the Oil Pollution Act of 1990 to provide specific funding for rescue, rehabilitation, and recovery of marine species, including marine birds and sea turtles. Section 505 of H.R. 501/H.R. 1870 would establish an Ocean Resources Conservation and Assistance Fund to provide specific support for rescue, rehabilitation, and recovery of marine species; conservation of marine ecosystems; improvement of marine ecosystem resiliency; and protection of marine biodiversity. H.Res. 80 would express the sense of the House in support of

the goals and ideals of National Marine Awareness Day, celebrating the diversity of marine fisheries and wildlife and the richness of marine ecosystems. Section 2(c)(2) of H.R. 1505 would extend the authority of the Secretary of Homeland Security to waive certain responsibilities under the Fish and Wildlife Act of 1956 and the Fish and Wildlife Coordination Act to secure the border within 100 miles of any international land and maritime U.S. border. H.R. 1650 would amend Section 307 of the National Oceanic and Atmospheric Administration Authorization Act of 1992 to establish a Chesapeake Bay coastal living resources management and habitat program. H.R. 1670 and Section 313 of H.R. 1540 would amend the Sikes Act to modify how this act applies to state-owned facilities used for national defense; On May 12, 2011, the House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs held a hearing on this bill. On July 21, 2011, the House Committee on Natural Resources reported (amended) H.R. 1670 (H.Rept. 112-175, Part I). Section 5 of S. 973 would create a National Endowment for the Oceans, with funding (§6) for habitat restoration, protection, and maintenance, including analyses of ocean acidification and minimization of ecosystem harm. S. 1201 would authorize a national program to conserve fish and aquatic communities through partnerships to foster habitat conservation. S. 1224 would amend P.L. 106-392 to maintain annual base funding for the Upper Colorado and San Juan River fish recovery programs through FY2023; on June 23, 2011, the Senate Energy and Natural Resources Subcommittee on Water and Power held hearings on this bill. S. 1266 and H.R. 2325 would establish a Delaware River Basin Restoration Program, including grants for restoration or protection of fish and their habitat. H.R. 872 would amend the Federal Insecticide, Fungicide, and Rodenticide Act and the Federal Water Pollution Control Act to clarify congressional intent regarding the regulation of the use of pesticides in or near navigable waters.

In addition, a number of bills in the 112th Congress propose to address various water quality and aquatic/marine ecosystem restoration issues more generally; for more information on these issues, see CRS Report R41594, *Water Quality Issues in the 112th 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.

Sport Fisheries

Sections 203(b) and 401(b) of P.L. 112-5 (H.R. 662) 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 the end of FY2011. Section 4(b) of S. 108 and Section 5(b) of S. 1069 would modify the tariff on vulcanized rubber lug boot bottoms for use in fishing waders. Section 9(b)(2)(D) of S. 351 and Section 13(2)(D) of H.R. 352 would designate a portion of revenues from certain oil and gas leasing in Alaska for the Dingell-Johnson Sport Fish Restoration Fund. Section 311 of H.R. 1287 and S. 706 would prohibit the Claims and Judgment Fund of the United States Treasury from paying legal fees of an environmental nongovernmental organization related to any action that prevents, terminates, or reduces access to or the production of a resource by commercial or recreational fishermen. H.R. 1443 seeks to prevent restrictions on traditional fishing implements (e.g., lead sinkers), including a provision to makes states and territories ineligible for federal Sport Fish Restoration funds if traditional fishing implements are restricted; H.R. 1444 would require that fishing be a recognized use in management plans for federal lands under the jurisdiction of the Secretary of the Interior or the Secretary of Agriculture; on September 9, 2011, the House Natural Resources Subcommittee on National Parks, Forests, and Public Lands held a hearing on this bill. H.R. 1445 would prohibit the Environmental Protection Agency (EPA) from regulating, based on material composition, any type of fishing

tackle, while H.R. 1558 and S. 838 would amend the Toxic Substances Control Act to modify the jurisdiction of the EPA with respect to certain sport fishing articles (e.g., lead sinkers). S. 901 and H.R. 1997 would fund projects to secure recreational public access to federal public land that has significantly restricted access for fishing. H.R. 2351 would direct 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; on September 15, 2011, the House Natural Resources Subcommittee on National Parks, Forests, and Public Lands held a hearing on this bill. Section 2(b)(2) of S. 1265 would amend the Land and Water Conservation Fund Act to specify that at least 1.5% of the annual authorized funding amount be made available for projects that secure recreational public access to existing federal public land for hunting, fishing, and other recreational purposes. H.R. 2834 would direct federal public land management officials to facilitate use of and access to federal public lands and waters for fishing; on September 9, 2011, the House Natural Resources Subcommittee on National Parks, Forests, and Public Lands held a hearing on this bill. S. 1555 would authorize the use of certain offshore oil and gas platforms in the Gulf of Mexico for artificial reefs. Two bills would extend 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 January 31, 2012 (S. 1525) or March 31, 2012 (H.R. 2887). On September 8, 2011, the Senate Committee on Environment and Public Works reported S. 1525. On September 13, 2011, the House passed H.R. 2887; on September 15, 2011, the Senate passed H.R. 2887.

Disasters and Recovery

H.R. 56, S. 1140, and Section 402 of H.R. 501/H.R. 1870 would establish a Gulf Coast Ecosystem Restoration Fund, with use of funds to include mitigation of damage to fisheries; H.R. 1762 would establish a Gulf Coast Restoration Fund, with use of the funds to include ecosystem restoration; S. 861 would establish a Gulf Coast Ecosystem Restoration Council and create a Gulf Coast Ecosystem Restoration Science, Monitoring, and Technology Program within NOAA; Section 5(d) of S. 1400 would establish a Fisheries and Ecosystem Endowment that would fund efforts to achieve long-term sustainability of the ecosystem, fish stocks, fish habitat, and the recreational, commercial, and charter fishing industry in the Gulf of Mexico. S. 653 and H.R. 1336 would require the Administrator of the Small Business Administration to establish a Southeast Hurricanes Small Business Disaster Relief Program for losses caused by Hurricane Katrina of 2005, Hurricane Rita of 2005, Hurricane Gustav of 2008, or Hurricane Ike of 2008. H.R. 1228 and S. 662 would require EPA to enter into an arrangement with the National Academies to preliminarily evaluate the natural resource damages from the Deepwater Horizon Oil Spill; on June 28, 2011, the Senate Environment and Public Works Subcommittee on Water and Wildlife held a hearing on S. 662. S. 861 and H.R. 1762 would create a fund for Gulf Coast restoration, with use of funds to include restoring, protecting, and making sustainable use of the natural resources, ecosystems, fisheries, marine habitats, coastal wetland, and economy of the Gulf Coast states; on June 28, 2011, the Senate Environment and Public Works Subcommittee on Water and Wildlife held a hearing on S. 861. Section 7 of S. 862 would create a Gulf of Mexico Fishery Endowment to fund a variety of activities supportive of the long-term sustainability of fish stocks and the recreational, commercial, and charter fishing industry in the Gulf of Mexico.

Invasive Species

On July 13, 2011, the House Committee on Transportation and Infrastructure, Subcommittees on Coast Guard and Maritime Transportation and on Water Resources and Environment, held a joint

hearing on ballast water discharge regulation. H.Res. 132 would express the need to raise awareness and promote capacity building to address the lionfish invasion in the Atlantic Ocean. Section 3 of S. 432 would amend the Lake Tahoe Restoration Act to require FWS to deploy strategies to prevent the introduction of aquatic invasive species into the Lake Tahoe Basin. H.R. 892 and S. 471 would direct the Corps of Engineers, U.S. Geological Survey, and FWS to take measures to control the spread of Asian carp, including studying the feasibility of the hydrological separation of the Great Lakes and Mississippi River Basins. Section 5 of S. 1430 would authorize a “green ships” program, with one element focusing on identifying, evaluating, testing, demonstrating, and improving marine technologies for controlling aquatic invasive species. H.R. 2840 would amend the Clean Water Act to add a new Section 321 to implement ballast water management and standards related to discharges from commercial vessels. As reported by the Senate Committee on Appropriations on September 7, 2011, Section 105 of H.R. 2354 authorizes the Corps of Engineers to take emergency measures (not including hydrologic separation) to exclude Asian carp from the Great Lakes (S.Rept. 112-75). H.R. 2432 would require the Corps of Engineers to prepare an economic impact statement before carrying out any federal action relating to the Chicago Area Water System.

International Fisheries

S. 52 would amend various statutes implementing international fishery agreements to deter and combat illegal, unreported, and unregulated (IUU) fishing; in addition, Title IV would amend the Tuna Conventions Act of 1950 to implement the Antigua Convention. On May 5, 2011, the Senate Committee on Commerce, Science, and Transportation ordered this bill reported, amended. H.Res. 47 would express the sense of the House of Representatives urging that the parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) adopt stronger protections for sharks and bluefin tuna. S.Res. 227 would call for the protection of the Mekong River Basin and increased U.S. support for delaying the construction of mainstream dams along the Mekong River. Section 801 of H.R. 2583 expresses the sense of Congress that timely reporting by fisheries commissions that sufficiently explains commission activities and the disposition of commission resources is necessary to maintain public support for their continued funding; Section 104(4) of H.R. 2583 as well as Section 703(e) of S. 1426 would authorize \$31.3 million for International Fisheries Commissions of FY2012. Section 107 of S. 1426 would extend the period for reimbursement of seized commercial fishermen under the Fishermen’s Protective Act from 2008 to 2013.

Seafood Safety

S. 50 would direct the Departments of Commerce and of Health and Human Services, the Federal Trade Commission, and other federal agencies to combat seafood fraud²⁴ and coordinate and strengthen programs to better ensure that seafood in interstate and foreign commerce is fit for human consumption; on June 8, 2011, the Senate Committee on Commerce, Science, and Transportation ordered this bill reported. H.R. 832 would require research on the safety of Gulf of Mexico seafood, including levels of elevated hazardous substances. S. 1183 would establish a program to monitor long-term changes in mercury and methyl mercury in fish and other aquatic organisms.

²⁴ See CRS Report RL34124, *Seafood Marketing: Combating Fraud and Deception*, by Eugene H. Buck.

Tax Provisions

Section 202(a)(74) of S. 13 would repeal Section 7873 of the Internal Revenue Code of 1986 relating to federal tax treatment of income derived by Indians from exercise of fishing rights secured by treaty. H.R. 278 would amend the Internal Revenue Code of 1986 to provide for tax-exempt qualified small issue bonds to finance fish processing property. Section 5 of H.R. 390 would amend the Internal Revenue Code of 1986 to provide for an exclusion from the gross estate for certain farmlands and lands subject to qualified conservation easements managed to provide habitat in support of fish and wildlife-dependent recreation.

Tuna and Billfish

H.R. 1806 would amend the Endangered Species Act to provide that bluefin tuna not be treated as an endangered or threatened species. S. 52 would (1) amend the Tuna Conventions Act of 1950 to implement the Antigua Convention, and (2) amend the MMPA to authorize appropriations thorough FY2013 to study of the effect of intentional encirclement (including chase) on dolphins incidentally taken in purse seine fishing for yellowfin tuna in the eastern tropical Pacific Ocean; On May 5, 2011, the Senate Committee on Commerce, Science, and Transportation ordered this bill reported, amended. H.R. 2706 and S. 1451 would prohibit the sale of billfish.

Jobs

Section 7(b)(2)(H) of H.R. 192/S. 179 would promote 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 June 8, 2011, the Senate Committee on Commerce, Science, and Transportation ordered S. 179 reported. H.R. 594 would establish a jobs creation grant program to support cooperative research and monitoring, recreational fishing registry programs, marine debris removal, and restoration of coastal resources.

Harmful Algal Blooms and Hypoxia

On June 1, 2011, the House Science, Space, and Technology Subcommittee on Energy and Environment held a legislative hearing on harmful algal bloom and hypoxia research. H.R. 2484 would reauthorize the Harmful Algal Bloom and Hypoxia Research and Control Act of 1998 (through FY2015) to include a comprehensive strategy to address harmful algal blooms and hypoxia and to provide for the development and implementation of a comprehensive research plan and action strategy to reduce harmful algal blooms and hypoxia; on July 28, 2011, the House Committee on Science, Space, and Technology ordered this bill reported (amended).

Health

Section 232(a) of H.R. 105, Section 501(a) of H.R. 299, Section 201(a) of H.R. 397, and Section 2(a) of H.R. 1050 would 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.

Legal Fees

Section 311 of H.R. 1287 and S. 706 would prohibit the Claims and Judgment Fund of the United States Treasury from paying legal fees of an environmental nongovernmental organization related to any action that prevents, terminates, or reduces access to or the production of a resource by commercial or recreational fishermen.

Accidents and Injury

Section 2(2) of S. 475 would prohibit funding of National Institute for Occupational Safety and Health's Agriculture, Forestry, and Fishing Program, which seeks to eliminate occupational diseases and injuries among workers in these industries through research and prevention.

Coral

S. 46 and H.R. 738 would amend and reauthorize the Coral Reef Conservation Act of 2000 through FY2015 (H.R. 738) or FY2016 (S. 46). On May 5, 2011, the Senate Committee on Commerce, Science, and Transportation ordered S. 46 reported, amended.

Insurance

Section 39 of H.R. 1026 would require the Federal Emergency Management Agency to study the impacts of the National Flood Insurance Program on harbor areas including commercial and recreational fishing.

Marketing and Trade

Section 7 of H.R. 480 would establish a Gulf of Mexico seafood marketing program. Section 4(b) of S. 108/H.R. 2697 would modify the tariff on vulcanized rubber lug boot bottoms for use in fishing waders.

Government Reorganization

Section 202(b) of S. 1116 would transfer all NMFS functions to the Fish and Wildlife Service in the Department of the Interior.

Marine Debris

H.R. 1171 and S. 1119 would reauthorize and amend the Marine Debris Research, Prevention, and Reduction Act.

Fishing Vessels

H.R. 2241 and S. 1208 would provide an election to terminate certain capital construction funds without penalties.

National Fish and Wildlife Foundation

S. 1494 would reauthorize (through FY2015) and amend the National Fish and Wildlife Foundation Establishment Act.

Fishing Permits and Licenses

H.R. 1210, S. 608, and Section 406 of H.R. 2838 would limit maritime liens on fishing permits and licenses.

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.²⁵ The diversity of aquaculture is typified by such activities as freshwater fish farming (e.g., catfish and trout farms);²⁶ shellfish and seaweed culture; net-pen culture, used by the salmon industry, wherein fish remain captive throughout their lives in marine pens; 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 grew from approximately 1 million metric tons in the early 1950s to 51.7 million metric tons in 2006 (the most recent FAO data available).²⁷ Meanwhile, the harvest from wild populations has been static for the last two decades, and further growth of fish production for human consumption is expected to rely on aquaculture. In 2006, FAO estimated that 47% of all fish consumed by humans came from aquaculture. FAO predicts that world aquaculture production could exceed 130 million metric tons by 2030, more than double the current wild fish harvest for human consumption.²⁸

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.²⁹ The domestic aquaculture industry faces strong

²⁵ 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 Eugene Buck at gbuck@crs.loc.gov.

²⁶ For statistics on freshwater production, see <http://www.agcensus.usda.gov/Publications/2002/Aquaculture/index.asp>.

²⁷ For more details, see <ftp://ftp.fao.org/docrep/fao/011/i0250e/i0250e01.pdf>.

²⁸ For a discussion of FAO projections for 2030, see <http://www.fao.org/docrep/007/y5648e/y5648e07.htm#bm07.1>.

²⁹ See <http://www.agcensus.usda.gov/Publications/2002/Aquaculture/AQUACEN.pdf>. For the latest information on domestic production and statistics, see <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?> (continued...)

competition from imports of foreign aquacultural products, from the domestic poultry and livestock industries, and from wild harvests. In addition, aquaculture operations face increasing scrutiny for habitat destruction, pollution, and other concerns. The major federal 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.³⁰ On June 9, 2011, the Department of Commerce and NOAA released complementary national aquaculture policies to address concerns related to aquaculture development in the EEZ.³¹ Legislation to modify the regulatory environment and promote the development of U.S. offshore, open-ocean aquaculture was introduced in the 110th Congress, but was not considered by either chamber, and was not reintroduced in the 111th Congress.

In 2009, the Gulf of Mexico Fishery Management Council voted to approve a plan to issue aquaculture permits and regulate aquaculture in federal waters of the Gulf of Mexico. NOAA is also developing a national aquaculture policy to complement this action. Environmentalists and some fishing industry representatives have opposed the plan because of concerns related to environmental protection and potential harm to wild fish populations. Many who oppose the plan support a precautionary approach and development of national aquaculture standards. In response to these concerns, legislation to establish a regulatory system for offshore aquaculture in the U.S. EEZ was introduced during the 111th Congress, but was not considered on the floor in either chamber.

Aquaculture Issues in the 112th Congress

The 112th Congress may consider whether NOAA policies and regulations can balance development and regulation of the aquaculture industry in the U.S. Exclusive Economic Zone, and whether to constrain regional fishery management council authority to permit aquaculture in federal offshore waters through fishery management plans and their amendment.

In the 112th Congress, several bills have been introduced that might affect aquaculture:

- S. 50 would direct the Departments of Commerce and of Health and Human Services, the Federal Trade Commission, and other federal agencies to coordinate and strengthen programs to combat seafood fraud³² and better ensure that seafood in interstate and foreign commerce is fit for human consumption; on June 8, 2011, the Senate Committee on Commerce, Science, and Transportation ordered this bill reported.

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³⁰ Available at <http://aquaculture.noaa.gov/about/tenyear.html>.

³¹ The NOAA policy is available at http://aquaculture.noaa.gov/pdf/noaa_aquaculture_policy_2011.pdf; the Department of Commerce policy is available at http://aquaculture.noaa.gov/pdf/doc_aquaculture_policy_2011.pdf.

³² See CRS Report RL34124, *Seafood Marketing: Combating Fraud and Deception*, by Eugene H. Buck.

- H.R. 278 would amend the Internal Revenue Code of 1986 to provide for tax-exempt qualified small issue bonds to finance fish processing property.
- S. 229 and H.R. 520 would amend the Federal Food, Drug, and Cosmetic Act to require labeling of genetically engineered fish. S. 230 and H.R. 521 would amend the Federal Food, Drug, and Cosmetic Act to prevent the approval of genetically engineered fish for human consumption. Section 744 of H.R. 2112, as passed by the House on June 16, 2011, would prohibit the Food and Drug Administration from spending FY2012 funds to approve any application for genetically engineered salmon. On September 7, 2011, the Senate Committee on Appropriations reported H.R. 2112, without the prohibition on FDA related to genetically engineered salmon (S.Rept. 112-73).
- S. 256 would amend the Internal Revenue Code of 1986 to allow a credit against income tax for equity investments in aquaculture small businesses.
- H.R. 574 would prohibit the Secretary of the Interior and the Secretary of Commerce from authorizing commercial finfish aquaculture operations in the EEZ unless specifically authorized by Congress. H.R. 2373 would establish a regulatory system and research program for offshore aquaculture in the U.S. EEZ.
- Section 39 of H.R. 1026 would require the Federal Emergency Management Agency to study the impacts of the National Flood Insurance Program on harbor areas including aquaculture.
- S. 496 would amend the Food, Conservation, and Energy Act to repeal a program relating to inspection and grading of catfish.
- H.R. 1149, H.R. 2009, and S. 1085 would amend the Clean Air Act to include algae-based biofuel in the renewable fuel program; H.R. 1149, S. 748, Section 6 of S. 1185/H.R. 2231, and Section 503 of S. 1294 would amend the Internal Revenue Code of 1986 to include algae-based biofuel in the cellulosic biofuel producer credit. Section 5 of S. 937/H.R. 2036 and Section 222 of H.R. 2133 would provide additional incentives for algae-based fuel production.
- H.R. 1176 would amend the Specialty Crops Competitiveness Act of 2004 to include farmed shellfish as specialty crops.
- H.R. 1160 and S. 651 would require the Secretary of the Interior to convey the McKinney Lake National Fish Hatchery to the State of North Carolina. On May 12, 2011, the House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs held a hearing on H.R. 1160, and reported this bill on July 20, 2011 (H.Rept. 112-168). Section 108 of H.R. 2354 would authorize the Corps of Engineers to transfer to the Fish and Wildlife Service as much as \$3,800,000 for National Fish Hatcheries to mitigate for fisheries lost due to Corps of Engineers projects; this bill was reported by the Committee on Appropriations on June 24, 2011 (H.Rept. 112-118). On July 15, 2011, the House passed H.R. 2354 (amended), with the hatchery funding in Section 107. On September 7, 2011, the Senate Committee on Appropriations reported this bill, with the hatchery funding in Section 109 (S.Rept. 112-75)

- Section 2(C)(1) of H.R. 1251 would direct the Secretary of Commerce and Secretary of the Interior to establish a fish hatchery program or refuge to preserve and restore the delta smelt.
- H.R. 1650 would amend Section 307 of the National Oceanic and Atmospheric Administration Authorization Act of 1992 to establish a Chesapeake Bay coastal living resources management and habitat program, supporting fish and shellfish aquaculture including native oyster restoration.
- Section 207 of H.R. 1837 would order that no distinction be made under the Endangered Species Act between anadromous fish of wild and hatchery origin in the Sacramento and San Joaquin Rivers and their tributaries. On June 2 and 13, 2011, the House Natural Resources Subcommittee on Water and Power held hearings on H.R. 1837.
- Section 3 of H.R. 2110 would authorize a nutrient bio-extraction pilot project for Long Island Sound, defined so as to include the aquaculture of suspension-feeding shellfish or algae.
- H.R. 2905 would temporarily waive the risk management purchase requirement for agricultural producers adversely impacted by Hurricane Irene or Tropical Storm Lee so that such producers would be eligible to receive assistance under the Emergency Assistance for Livestock, Honey Bees, and Farm-Raised Fish Program.

Marine Mammals

Background

In 1972, Congress enacted the Marine Mammal Protection Act (MMPA; 16 U.S.C. §§1361 et seq.), due in part to high 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 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 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. The eastern tropical Pacific tuna fishery initially was excluded from the incidental take regimes. 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 the International Dolphin Conservation Program Act.

More recently, Section 319 of P.L. 108-136 amended the MMPA in 2003 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.³³ The Navy’s use of mid-frequency sonar and its possible effects on marine mammals has been the focus of much controversy and litigation.³⁴

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. This reauthorization also included amendments providing for developing and implementing take-

³³ For more background, see CRS Report RS22149, *Exemptions from Environmental Law for the Department of Defense (DOD)*, by David M. Bearden.

³⁴ 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.

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.³⁵

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.³⁶ GAO found that NMFS did not have a human-caused mortality estimate or a maximum removal level for 39 of 113 (35%) 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 their accuracy into question. 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.

The 112th Congress may consider bills to reauthorize and amend the MMPA, either comprehensively or through specific programs, such as the John H. Prescott Marine Mammal Rescue Assistance Grant Program (16 U.S.C. §1421f-1). Other measures may address specific marine mammal habitat and management concerns, such as how to better understand and deal with the effects of increasing noise in the ocean. In some cases, legislation might address individual species issues, such as proposals to expand the research program seeking the recovery of the southern sea otter.

Legislation has been introduced in the 112th Congress to address several issues related to the MMPA.

- Section 3 of H.R. 332 would require compliance by all federal defense agencies with certain environmental laws including MMPA.
- Section 305(a) of S. 52 would amend the MMPA to authorize appropriations thorough FY2013 to study of the effect of intentional encirclement (including chase) on dolphins incidentally taken in purse seine fishing for yellowfin tuna in the eastern tropical Pacific Ocean. On May 5, 2011, the Senate Committee on Commerce, Science, and Transportation ordered this bill reported, amended.
- H.R. 594 would establish a jobs creation grant program to support cooperative research to collect data to improve marine mammal stock assessments.
- Section 3(a) of H.R. 840 would allow certain offshore drilling operations to proceed without further review under the MMPA. Section 101 of H.R. 909 would declare the Draft Proposed Outer Continental Shelf (OCS) Oil and Gas Leasing Program 2010-2015 to be fully compliant with MMPA; on May 31 and June 3, 2011, the House Energy and Commerce Subcommittee on Energy and Power held hearings on H.R. 909.

³⁵ 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.

³⁶ 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>.

- H.R. 946 would amend MMPA to authorize NOAA to issue one-year permits to Washington and Oregon and four Columbia River treaty tribes for the “lethal taking” of sea lions, seeking to reduce marine mammal predation on endangered Columbia River salmon; on June 14, 2011, the House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs held a hearing on this bill.
- H.R. 990 would amend MMPA to allow the importation of polar bear trophies taken in sport hunts in Canada. H.R. 991 and S. 1066 would amend MMPA to allow imports of polar bear trophies taken in sport hunts in Canada before the date the polar bear was determined to be a threatened species under the Endangered Species Act. On May 12, 2011, the House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs held a hearing on H.R. 991.
- S. 1402 would amend MMPA to increase the maximum penalty for violating that act.
- S. 1453 and H.R. 2714 would amend MMPA to allow the transport, purchase, and sale of pelts of—and handicrafts, garments, and art produced from—South Central and Southeast Alaska northern sea otters that are taken for subsistence purposes.

Additional Marine Mammal Issues in the 112th Congress

Legislation has been introduced in the 112th Congress to address several other issues related to marine mammals generally.

Habitat

S. 203 would direct NOAA to research oil spill prevention and response in the Arctic waters, including assessment of impacts on Arctic marine mammals, and amend the Oil Pollution Act of 1990 to provide specific funding for rescue, rehabilitation, and recovery of marine species, including marine mammals. Section 224 of H.R. 501/H.R. 1870 would amend Section 20 of the Outer Continental Shelf Lands Act relating to determining the cumulative impacts on marine mammal species and stocks and their subsistence use.

Polar Bears

H.R. 39 would delist the polar bear as a threatened species under the Endangered Species Act of 1973.

Miscellaneous Marine Mammal Issues

Section 34 of H.R. 235, Section 506(b)(21) of H.R. 408/S. 178, Section 3 of S. 475, and Section 2(a)(31) of H.R. 1891 would repeal exchange programs for Alaska Natives, Native Hawaiians, and their historical whaling and trading partners in Massachusetts in Subpart 12 of Part D of Title V of the Elementary and Secondary Education Act of 1965; on June 14, 2011, the House Committee on Education and the Workforce reported H.R. 1891, amended (H.Rept. 112-106). H.Res. 80 would express the sense of the House in support of the goals and ideals of National

Marine Awareness Day, celebrating the diversity of marine wildlife and the richness of marine ecosystems.

Appropriations

Appropriations also play an important role in federal fisheries management, providing funds for various programs and initiatives. In addition, appropriations bills have served as vehicles for some changes in MSFCMA provisions.

National Marine Fisheries Service

For NMFS, funding for fisheries and marine mammal programs including management under the MSFCMA is provided within NOAA's Operations, Research, and Facilities (OR&F) Account. (See **Table 1.**) NMFS employs more than 2,800 scientists, policy analysts, engineers, boat captains, computer modelers, statisticians, enforcement officers, secretaries, fisheries managers, economists, and various other skilled workers to implement its programs.

Table 1. NMFS Appropriations, FY2010-FY2012

(in thousands of dollars)

	FY2010 Enacted	FY2011 Request	FY2011 Enacted	FY2012 Request	FY2012 Hse Rpt	FY2012 Sen Rpt
Fisheries	535,647	537,263	506,684	550,295	439,162	484,916
Protected Species	203,952	210,251	199,447	216,581	131,672	177,930
Habitat Conservation	58,193	54,918	49,812	53,600	25,073	41,789
Enforcement Surveillance	106,747	105,345	105,619	106,207	105,747	106,806
Admin. Efficiency Initiative				(16,271)	(16,273)	
Cong.-Directed Projects			33,418			
SUBTOTAL (OR&F)	904,539	907,777	894,980	910,412	685,381	811,441
Procurement, Acquisition, Construction	0	0	0	0	0	0
Pacific Coastal Salmon Recovery	80,000	65,000	80,000	65,000	65,000	65,000
Other Accounts	23,642	350	42,420	25,142	350	350
TOTAL	1,008,181	973,127	1,017,400	1,001,104	750,731	876,791

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.

P.L. 112-10 enacted continuing appropriations for the remainder of FY2011, reducing National Oceanic and Atmospheric Administration (NOAA, within which NMFS resides) FY2011 funding for "Operations, Research, and Facilities" to \$3,185,883,000 (Section 1326, Division B), a reduction of \$119,295,000 or -3.61% from that enacted for FY2010; NOAA has not yet reported how this funding reduction is to be allocated across subcategories (e.g., NMFS) within this account. P.L. 112-10 also included language prohibiting expenditures to approve new limited-

access privilege programs under the MSFCMA for any fishery under the jurisdiction of the South Atlantic, Mid-Atlantic, New England, or Gulf of Mexico Fishery Management Council (Section 1349, Division B).

The Administration's FY2012 budget request was released on February 14, 2011.³⁷ On March 31, 2011, the House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs held an oversight hearing on spending for NMFS and the President's FY2012 budget request for this agency. Appropriations issues in the 112th Congress might include not only what level of funding is adequate to implement the programs required by law, but also what levels of funding might be provided for alleviating the effects of disasters on fisheries and how much funding should be provided to restore salmon habitat and promote the recovery of endangered and threatened salmon stocks.

On July 20, 2011, the House Committee on Appropriations reported its FY2012 Commerce, Justice, Science appropriations bill, H.R. 2596 (H.Rept. 112-169), proposing significantly lower funding of many NMFS programs.³⁸ Under the committee's proposal, funding for NMFS programs would be reduced by \$267 million (-26%) from the FY2011 enacted funding and \$250 million (-25%) from the Administration's FY2012 request. Major changes include a reduction in funding for catch share programs of \$22 million (-50%) below FY2011 funding and \$32 million (59%) below the Administration's FY2012 request. Funding for fish stock assessments would be increased by \$10.4 million (19%) above FY2011 funding, although it is \$3.4 million (-5%) below the Administration's FY2012 request. On September 15, 2011, the Senate Committee on Appropriations reported S. 1572 (S.Rept. 112-78), proposing that FY2012 funding for NMFS programs be reduced by \$124 million (-12%) from that proposed by the Administration, although the Senate Committee recommendation is \$126 million (17%) larger than the House-passed measure to fund NMFS programs.

Fish and Wildlife Service

Within the FWS budget, an account for "fisheries and aquatic resource conservation" includes funding for the National Fish Hatchery operations, aquatic invasive species programs, and marine mammal programs. (See **Table 2.**) These programs employ about 800 individuals, located at 70 National Fish Hatcheries, 65 Fish and Wildlife Conservation Offices, 1 historic National Fish Hatchery, 9 Fish Health Centers, and 7 Fish Technology Centers.

Table 2. FWS Appropriations, FY2010-FY2012

(in thousands of dollars)

	<i>FY2010 Request</i>	<i>FY2010 Enacted</i>	<i>FY2011 Request</i>	<i>FY2011 Enacted</i>	<i>FY2012 Request</i>	<i>FY2012 Hse Rpt</i>
Fisheries and Aquatic Resource Conservation	140,695	148,214	142,477	138,939	136,012	128,343

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

³⁷ For more information on NMFS FY2010 appropriations, see CRS Report R40840, *The National Oceanic and Atmospheric Administration (NOAA) Budget for FY2010*, by Harold F. Upton.

³⁸ See http://appropriations.house.gov/UploadedFiles/CJSFY12_FC_xml.pdf.

P.L. 112-10, providing appropriations for FWS for the remainder of FY2011, reduced FWS FY2011 funding for “Resource Management” to \$1,247,356,000 (Section 1704, Division B), a reduction of \$22,050,000 or -1.74% from that enacted for FY2010; FWS has not yet reported how this funding reduction is to be allocated across subcategories (e.g., Fisheries and Aquatic Resource Conservation) within this account.

The Administration’s FY2012 budget request was released on February 14, 2011.³⁹ The decrease in the FY2012 request was primarily from a decrease of \$11,609,000 proposed for the National Fish Hatchery System. On March 2, 2011, the House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs held an oversight hearing on Department of the Interior spending for the U.S. Fish and Wildlife Service and the President’s FY2012 budget request for the Fish and Wildlife Service. The central issue in the 112th Congress with these appropriations might be expected to focus on what level of funding is adequate to implement the programs required by law.

On July 19, 2011, the House Committee on Appropriations reported its FY2012 Interior appropriations bill, H.R. 2584 (H.Rept. 112-151), proposing significantly lower funding for many FWS programs, including Fisheries and Aquatic Resource Conservation. Under the committee’s proposal, funding for FWS Fisheries and Aquatic Resource Conservation programs would be reduced by \$10.6 million (8%) from funding enacted for FY2011 and by \$7.7 million (6%) from the Administration’s FY2012 request.

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³⁹ For more comprehensive information on FWS FY2012 appropriations, see CRS Report R41928, *Fish and Wildlife Service: FY2012 Appropriations and Policy*, by M. Lynne Corn.