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Fishery, Aquaculture, and Marine Mammal Legislation in the 110th Congress

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Eugene H. Buck
Specialist in Natural Resources Policy
Resources, Science, and Industry Division

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Committees of 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. Bills to reauthorize and amend major legislation — the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) and the Marine Mammal Protection Act (MMPA) — were acted upon by the 109th Congress; the authorization of appropriations for both laws had expired at the end of FY1999. P.L. 109-479 reauthorized and extensively amended the MSFCMA; a bill proposing to reauthorize and amend the MMPA (H.R. 4075) passed the House, but received no further action.

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 MSFCMA through eight regional fishery management councils. Beyond 200 miles, the United States participates in international agreements relating to specific areas or species. The 110th 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.

Aquaculture — the farming of fish, shellfish, and other aquatic animals and plants in a controlled environment — is expanding rapidly abroad, with more modest advances in the United States. In the United States, important species cultured include catfish, salmon, shellfish, and trout. The Administration has stated that it plans to offer new draft legislation to promote the development of aquaculture in offshore federal waters. In addition, the 110th Congress may consider other measures to guide federal activities related to aquaculture.

Marine mammals are protected under the MMPA. With few exemptions, the MMPA prohibits harm or harassment ("take") of marine mammals, unless restrictive permits are obtained. It addresses specific situations of concern, such as dolphin mortality, primarily associated with the eastern tropical Pacific tuna fishery. The 110th Congress may consider bills to reauthorize and amend the MMPA as well as measures to address specific habitat and management concerns.

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Most Recent Developments

On March 1, 2007, the House Committee on Natural Resources Subcommittee on Water and Power held a hearing on H.R. 24, proposing to implement the San Joaquin River Restoration Settlement Agreement providing for the reintroduction of chinook salmon. On February 16, 2007, the Senate Committee on Energy and Natural Resources reported (amended) S. 264, proposing to authorize federal participation in funding fish passage improvements at Wallowa Lake Dam, OR.

Introduction

Increasing use of coastal and marine resources is driving proposals to alter relationships between environmental protection and sustainable resource management. Recent reports note declines in marine resources and shortcomings in the fragmented and limited approaches to resource protection and management in federal and state waters. 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 to both natural processes, such as climate variation, as well as 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.

In the final hours of the 109th Congress, the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) was reauthorized and extensively amended in P.L. 109-479.[1] Reauthorization of the Marine Mammal Protection Act (MMPA) was not finalized. The 110th Congress may consider measures to reauthorize the MMPA, address aquatic habitat concerns, modify or extend fishery disaster assistance, and address fishery-specific concerns, as well as conducting oversight of MSFCMA implementation. (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 his notification list.)

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[1] For a comprehensive summary of legislation in the 109th Congress on fisheries, aquaculture, and marine mammals, see CRS Report RL33459, *Fishery, Aquaculture, and Marine Mammal Legislation in the 109th Congress*, by Eugene H. Buck.

Commercial and Sport Fisheries: Background and Issues

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 the 1950s, 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 negotiations in the early and mid-1970s provided impetus for unilateral U.S. action.

The enactment of the Fishery Conservation and Management Act (FCMA) in 1976 (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.[2] The 200-mile fishery conservation zone was superseded by an 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.[3] Council members are appointed by the Secretary of Commerce from lists of

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[2] NMFS programs are described in detail at [http://www.nmfs.noaa.gov/].

[3] Links to individual Council websites are available at [http://www.nmfs.noaa.gov/councils/].

candidates knowledgeable of fishery resources, provided by coastal state governors.[4] The councils prepare 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 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 109th Congress by P.L. 109-479, the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006.[5] The authorization of appropriations in §7 of this 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 waters increased dramatically, from about 1.6 billion pounds (1977) to more than 6.3 billion pounds. Total (U.S. and foreign) offshore fishery landings from the U.S. EEZ (i.e., federal waters) increased about 24% between 1977 and 1986-1988 to a peak of 6.65 billion pounds.[6] Since this peak, annual landings have declined slightly and stabilized at around 6 billion pounds.

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[4] For the 2005 Report to Congress on Council membership, see [http://www.nmfs.noaa.gov/sfa/reg_svcs/Council_Reportocongress/05ReporttoCongress.pdf].

[5] 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/].

[6] 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.

In 2005, U.S. commercial fishermen landed almost 8.0 billion pounds of edible, unprocessed fish and shellfish from combined state, federal, and international waters, worth more than $3.8 billion at the dock.[7] Imports of mostly processed products supplied more than 5.1 billion pounds, worth almost $12.1 billion. U.S. consumers spent an estimated $65.1 billion on edible seafood in 2005, with almost $44.5 billion of that amount spent in restaurants and other food service establishments. In addition, marine recreational anglers caught an estimated 423 million fish in 2005, of which the retained catch was about 254 million pounds.[8] In 2001, a nationwide survey estimated that recreational anglers spent almost $36 billion each year pursuing their sport.[9]

NMFS reports annually on the status of fish stocks managed under the MSFCMA.[10] For 2005, NMFS made determinations for 237 fish stocks and complexes,[11] finding that 45 (19%) of them were subject to overfishing[12] and 192 (81%) were not. In addition, NMFS made determinations for 206 stocks and complexes, finding that 54 (26%) were overfished[13] and 152 (74%) were not. These numbers reflect no change in the overfishing percentages compared to 2004 (when 19% were subject to overfishing) and a slight improvement in the overfished numbers compared to that year (when 28% were overfished).

In addition, NMFS developed a Fish Stock Sustainability Index (FSSI) in 2005 to evaluate progress nationwide in addressing overfishing.[14] Out of a possible maximum FSSI of 920, this index has increased from 481.5 (third quarter of calendar year 2005) to 506.5 (fourth quarter of calendar year 2006).

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[7] For additional domestic commercial fishery harvest statistics, see [http://www.st.nmfs.noaa.gov/st1/commercial/index.html]. Statistics for 2005 are available at [http://www.st.nmfs.gov/st1/fus/fus05/fus_2005.pdf].

[8] Recreational fishing programs at NMFS are discussed at [http://www.st.nmfs.gov/st1/recreational/index.html].

[9] Details of the 2001 survey can be found at [http://www.census.gov/prod/www/abs/fishing.html].

[10] See [http://www.nmfs.noaa.gov/sfa/domes_fish/ReportsToCongress/finalSOS/Report_text_FINAL3.pdf].

[11] NMFS reviewed 530 individual stocks and stock complexes but had insufficient information to make determinations on all of them.

[12] A stock that is subject to overfishing has a fishing mortality (harvest) rate above the level that provides for the maximum sustainable yield.

[13] A stock that is overfished has a biomass level below a biological threshold specified in its fishery management plan.

[14] 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/domes_fish/StatusoFisheries/2006/4thQuarter/Q4-2006-FSSI Description.pdf].

Magnuson-Stevens Act

The MSFCMA was reauthorized in the final hours of the 109th Congress in 2006 by P.L. 109-479, the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006.[15] 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.[16]

Implementation of P.L. 109-479. On January 19, 2007, NMFS published an emergency rule increasing summer flounder total allowable landings for the 2007 fishing year as provided in §120(a).[17] On February 5, 2007, NMFS published a proposal to amend a Bering Sea/Aleutian Islands crab plan to authorize conversion of catcher vessel owner quota shares and processor quota shares to newly created catcher/processor owner quota shares, as directed in §122(a).[18] On February 7, 2007, NMFS published a proposed rule that would increase total allocations of Pacific cod under Alaska's Community Development Quota program, as required by §305(i)(1)(B)(ii)(I).[19] On February 14, 2007, NMFS published its intent to prepare an environmental impact statement to analyze alternatives regarding annual catch

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[15] For the White House press release, see [http://www.whitehouse.gov/news/releases/2007/01/print/20070112-3.html]; also see the White House fact sheet at [http://www.whitehouse.gov/news/releases/2007/01/20070112-1.html].

[16] For additional highlights and commentary on this enactment, see [http://cbbulletin.com/Free/199763.aspx].

[17] 72 *Fed. Reg*. 2458-2462 (Jan. 19, 2007).

[18] 72 *Fed. Reg*. 5255-5257 (Feb. 5, 2007).

[19] 72 *Fed. Reg*. 5654-5674 (Feb. 7, 2007).

limit and accountability measures and other overfishing provisions as required by §§103(b)(1) and (c)(3) and §§104(a)(10), (b), and (c).[20] Additional information on NMFS's implementation of P.L. 109-479 can be found at [http://www.nmfs.noaa.gov/msa2007/].

Congressional Action. In the 110th Congress, H.R. 21 would reorient U.S. ocean policy (including fisheries), emphasizing ecosystem management, creating a Council of Advisors on Ocean Policy to advise the President, organizing Regional Ocean Partnerships, and developing Ocean Ecosystem Resource Information Systems. H.R. 27 would designate the U.S. EEZ as the "Ronald Wilson Reagan Exclusive Economic Zone of the United States." S. 741 would amend the MSFCMA to establish a grant program to ensure waterfront access for commercial fishermen and aquaculture operators.

Pacific Salmon

Background. 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 freshwater to spawn. Management is complicated because these fish may cross several state and national boundaries during their life spans. In addition to natural environmental fluctuations, threats to salmon include hydropower dams blocking rivers and creating reservoirs, sport and commercial harvests, habitat modification by competing resource industries and 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.[21] On September 13, 2006, a San Joaquin Restoration Settlement Agreement was announced, ending an 18-year legal dispute over the operation of Friant Dam, CA. This Agreement provides for river channel improvements and water flow to sustain Chinook salmon upstream from the confluence of the Merced River tributary while providing water supply certainty to Friant Division water contractors.

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

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[20] 72 *Fed. Reg*. 7016-7019 (Feb. 14, 2007).

[21] For additional background on this issue, see CRS Report 98-666 ENR, *Pacific Salmon and Anadromous Trout: Management Under the Endangered Species Act*; and archived CRS Report RL31546, *The Endangered Species Act and Science: The Case of Pacific Salmon*, available from the author at [gbuck@crs.loc.gov].

managing the six species of anadromous Pacific salmon and trout. Annex IV expires at the end of 2008 and is to be renegotiated.[22]

Congressional Action. In the 110th Congress, H.R. 24 and S. 27 would authorize the implementation of the San Joaquin River Restoration Settlement providing for the reintroduction of chinook salmon; the House Committee on Natural Resources Subcommittee on Water and Power held a hearing on H.R. 24 on March 1, 2007. H.R. 234, S. 145, and Title V of H.R. 925 would appropriate $60.4 million for Pacific salmon emergency disaster assistance. S. 264 would authorize federal participation in funding fish passage improvements at Wallowa Lake Dam, OR; this bill was reported (amended) on February 16, 2007, by the Senate Committee on Energy and Natural Resources (S.Rept. 110-23). Section 103 of H.R. 860 and S. 493 would designate salmon restoration areas in California.

Miscellaneous Issues

Invasive Species. H.R. 83 would amend the Lacey Act to add four species of carp to the list of injurious species that are prohibited from being imported or shipped. H.R. 260 would authorize various marine and freshwater research, development, and demonstration programs to address invasive species concerns. H.R. 553 and S. 336 would direct the Army Corps of Engineers to operate and maintain a system of dispersal barriers in the Chicago Sanitary and Ship Canal. H.R. 767 would authorize grants to control harmful nonnative species at national wildlife refuges to protect and restore native fish and their habitat. H.R. 801 would amend the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 to require all vessels to exchange ballast water or use alternative ballast water management methods before entering any Great Lakes port. H.R. 889 would amend the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 to establish vessel ballast water management requirements.

Climate Change. Section 202(b)(5) of H.R. 620 and S. 280 would fund efforts to strengthen and restore habitat to improve the ability of fish to adapt successfully to climate change; Section 301 of H.R. 620 would also amend the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451, et seq.) to require the Secretary of Commerce to prepare a report on the observed and projected effects of climate change on marine life, habitat, and commercial and recreational fisheries. Section 101 of S. 317 would amend the Clean Air Act (42 U.S.C. §§7401, et seq.) to create a Climate Action Trust Fund, funding (among many programs) efforts to identify coastal and marine resources (such as coral reefs, submerged aquatic vegetation, shellfish beds, and other coastal or marine ecosystems) at greatest risk of damage by climate change; to monitor for impacts; and to restore damaged resources. S. 485 would amend the Clean Air Act to direct the Administrator of the Environmental Protection Agency to study ocean acidification and the ways that process affects ocean ecosystems and U.S. fisheries.

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[22] For additional information on the Pacific Salmon Treaty and renegotiation of its Annex IV, see CRS Report RL30234, *The Pacific Salmon Treaty: The 1999 Agreement and Renegotiation of Annex IV*.

Recreational Fishing. Section 1(c) of S. 307 would amend §9 of the Flood Control Act of 1944 to include maintenance of a healthy fishery on the Bighorn River, MT, downstream from the Yellowtail Dam as one of the authorized purposes of the Yellowtail Unit of the Pick-Sloan Missouri River Basin Program. H.R. 611 would amend the Social Security Act to eliminate the requirement that states collect Social Security numbers from applicants for recreational licenses.

National Marine Sanctuaries. Section 7(d)(8) of H.R. 1187 would promote cooperative research and education efforts with commercial fishermen operating within the Gulf of the Farallones National Marine Sanctuary, the Cordell Bank National Marine Sanctuary, and the Monterey Bay National Marine Sanctuary.

Health Care. Section 2 of H.R. 241, §202 of H.R. 324, and §101 of H.R. 1012 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.

Hydropower and Water Projects. Section 6 of S. 564 would amend the Water Resources Development Act of 1986 (P.L. 99-662; 33 U.S.C. §§2201 et seq.) to modify requirements for mitigating aquatic resource losses at Corps of Engineers projects.

Habitat. H.R. 17 and S. 380 would amend The Secure Rural Schools and Community Self-Determination Act of 2000 (P.L. 106-393) to reauthorize federal funding for projects to protect, restore, and enhance fish habitat.

Marketing. H.R. 167 and H.R. 293 would provide assistance for the construction, improvement, and rehabilitation of farmers markets, including those selling local aquaculture and commercial fishing products.

Habitat Restoration. S. 424 would direct the U.S. Army Corps of Engineers to implement the Penobscot River Restoration Project, benefitting endangered Atlantic salmon and shortnose sturgeon.

Trade. Section 321(b) of S. 122 and §501(b) of H.R. 910 would amend the Trade Act of 1974 (19 U.S.C. 2271, et seq.) to clarify that commercial fishermen are eligible for trade adjustment assistance.

Coral. S. 485 would direct the National Academy of Sciences to assess the probability of a loss of more than 40% of world coral reefs because of increased ocean temperature or acidity. H.R. 1205 would reauthorize the Coral Reef Conservation Act of 2000.

Great Lakes. H.R. 469 would authorize the Great Lakes Fishery Commission to investigate the effects of migratory birds on fish stock productivity.

Algal Blooms. H.R. 1091 would reauthorize the Harmful Algal Bloom and Hypoxia Research and Control Act of 1998 through FY2010.

Seafood Safety and Nutrition. Section 102 of H.R. 1148 and S. 654 would consolidate food safety and inspection programs, including seafood inspection.

Vessel Safety. S. 687 would amend the Internal Revenue Code of 1986 to provide a business credit against income for purchasing fishing safety equipment.

Aquaculture: Background and Issues

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.[23] 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);[24] 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.[25] The FAO predicts that world aquaculture production could exceed 130 million metric tons by 2030.[26]

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.[27] Despite considerable growth, the domestic aquaculture industry faces strong competition from imports of foreign aquacultural products, from the domestic

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[23] For more background information, see CRS Report RL32694, *Open Ocean Aquaculture* and archived CRS Report 97-436, *Aquaculture and the Federal Role*, available from the author at [gbuck@crs.loc.gov].

[24] For statistics on freshwater production, see [http://www.usda.gov/nass/pubs/stathigh/2002/livestock02.pdf].

[25] For more details, see [http://www.fao.org/newsroom/en/news/2006/1000383/index.html].

[26] For more discussion of FAO projections for 2030, see Part 3 of [http://www.fao.org/docrep/007/y5600e/y5600e00.htm].

[27] See [http://www.nass.usda.gov/aquaculture/index.asp].

poultry and livestock industries, and from wild harvests.[28] 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.).

In November 2006, NOAA released a draft 10-year plan for its marine aquaculture program.[29] The 110th Congress may consider legislation the Administration is drafting to modify the regulatory environment to promote the development of U.S. offshore, open-ocean aquaculture.

Congressional Action

National Marine Sanctuaries. Section 6(b) of H.R. 1187 would prohibit most aquaculture in the Gulf of the Farallones National Marine Sanctuary, the Cordell Bank National Marine Sanctuary, and the Monterey Bay National Marine Sanctuary.

Marketing. H.R. 167 and H.R. 293 would provide assistance for the construction, improvement, and rehabilitation of farmers markets, including those selling local aquaculture and commercial fishing products.

Turtles. H.R. 924 and S. 540 would require the Food and Drug Administration to permit the sale of baby turtles as pets so long as the seller uses proven methods to effectively treat *Salmonella*.

Open Ocean Aquaculture. S. 533 would amend the National Aquaculture Act of 1980 to prohibit issuing marine aquaculture facility permits until permits requirements are enacted.

Asian Carp. H.R. 83 would amend the Lacey Act to add four species of carp to the list of injurious species that are prohibited from being imported or shipped.

Food Safety. H.R. 1148 and S. 654 would establish a Food Safety Administration, with food production facilities defined as including aquaculture facilities in §3(14).

Assistance. S. 741 would amend the MSFCMA to establish a grant program to ensure waterfront access for aquaculture operators.

Marine Mammals: Background and Issues

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

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[28] For the latest information on domestic production and statistics, see [http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1375].

[29] Available at [http://www.nmfs.noaa.gov/mediacenter/aquaculture/plan.htm].

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, porpoises, seals, and sea lions. The Secretary of the Interior, acting through the Fish and Wildlife Service (FWS), is responsible for walruses, 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 act.

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's 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 purposes 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." 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. On January 23, 2007, the Department of Defense announced the authorization of a two-year exemption under these provisions for mid-frequency active sonar use.[30]

Marine Mammal Protection Act Reauthorization

Background. 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 may be reduced or are being maintained below their optimum sustainable population levels due to interactions with commercial fisheries, and for studying pinniped-fishery interactions.[31]

Congressional Action. In the 109th Congress, several bills were introduced, proposing to extensively amend the MMPA and authorize appropriations for several marine mammal programs. Although the House passed H.R. 4075 (amended), no further action was taken before 109th Congress adjourned. The 110th Congress may again consider measures to amend and reauthorize the MMPA as well as bills to address specific marine mammal regulatory and management issues.[32]

In the 110th Congress, H.R. 1006 would amend the MMPA to modify provisions relating to the John H. Prescott Marine Mammal Rescue Assistance Grant Program,

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[30] See [http://www.news.navy.mil/search/display.asp?story_id=27415].

[31] 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*, available from the author at [gbuck@crs.loc.gov].

[32] For additional background on potential reauthorization issues, see CRS Report RL30120, *The Marine Mammal Protection Act: Reauthorization Issues*, by Eugene H. Buck.

including reauthorizing funding for the Marine Mammal Unusual Mortality Event Fund. H.R. 1007 would amend 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.

Miscellaneous Issues

Climate Change. Section 202(b)(5) of H.R. 620 and S. 280 would fund efforts to strengthen and restore habitat to improve the ability of wildlife to adapt successfully to climate change; Section 301 of H.R. 620 would also amend the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451, et seq.) to require the Secretary of Commerce to prepare a report on the observed and projected effects of climate change on marine life and habitat. Section 101 of S. 317 would amend the Clean Air Act (42 U.S.C. §§7401, et seq.) to create a Climate Action Trust Fund, funding (among many programs) efforts to identify coastal and marine resources (such as coral reefs, submerged aquatic vegetation, shellfish beds, and other coastal or marine ecosystems) at greatest risk of damage by climate change; to monitor for impacts; and to restore damaged resources.

NMFS Appropriations

On February 6, 2006, the Bush Administration requested FY2007 funds for federal agencies and programs, including $736.9 million for NMFS. (See **Table 1**.) On March 9, 2006, the House Resources Subcommittee on Fisheries and Oceans held an oversight hearing on NMFS's FY2007 budget request.

In the 109th Congress, H.R. 5672, proposing NMFS FY2007 funding at $559.4 million, was reported by the House Committee on Appropriations on June 22, 2006 (H.Rept. 109-520), and passed (amended) the House on June 29, 2006. According to NOAA calculations, FY2007 funding for NMFS would decline by approximately 28%, or $156 million below the current funding level, if the House-passed approach were enacted. Such a reduction would "force NOAA to close critical fisheries, terminate protected species programs and terminate the Seafood Quality and Safety Program, costing billions in economic losses and increasing the cost of seafood to US consumers," according to NOAA's impact statement. Large reductions in funding for NOAA are inconsistent with the recommendations of the U.S. Commission on Ocean Policy and the Pew Oceans Commission.[33] The chairs of these commissions, Admiral James D. Watkins and Leon E. Panetta, issued a joint letter expressing their concern that the proposed funding cuts are being imposed at a time when there is clear recognition of the growing number and severity of problems compromising the health and associated economic benefits generated by our oceans, coasts, and Great Lakes. On July 13, 2006, the Senate Committee on Appropriations reported H.R.

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[33] The final report of the U.S. Commission on Ocean Policy is available at [http://www.oceancommission.gov/documents/full_color_rpt/welcome.html]; the final report of the Pew Oceans Commission is available at [http://www.pewtrusts.org/pdf/env_pew_oceans_final_report.pdf].

5672 (amended), proposing NMFS FY2007 funding at $903.7 million (S.Rept. 109-280). No further action was taken by the 109th Congress.

Table 1. NMFS Appropriations

(in thousands of dollars)

	FY2006 Enacted	FY2007 Request	FY2007 Hse Pas'd	FY2007 Sen Rptd	FY2008 Request
Fisheries	352,585	347,023	317,600	436,261	402,096
Protected Resources	145,039	144,924	108,000	180,991	165,095
Habitat Conservation	46,629	39,896	40,000	56,927	50,415
Enforcement Surveillance	72,675	80,697	73,500	84,500	86,973
SUBTOTAL	**667,226[a]**	**648,988[a]**	**539,100**	**813,679[a]**	**704,579**
Procurement, Acquisition, and Construction	30,444	0	0	0	0
Pacific Coastal Salmon Recovery	66,571	66,825	20,000	90,000	66,825
Other Accounts	39,579	21,088	287	0	24,550
TOTAL	**803,820**	**736,901**	**559,387**	**903,679**	**795,954**

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

a. Includes funds for "Alaska Composite Research and Development Program" — $50.3 million for FY2006; the Administration's FY2007 request was $36.45 million; the FY2007 Senate-reported amount was $55 million.

Since the 109th Congress did not enact FY2007 appropriations for NMFS/ NOAA, funding for these programs has been provided under a continuing resolution (P.L. 110-5) for all of FY2007. This continuing resolution funds NMFS programs for FY2007 at enacted FY2006 program/activity levels, with certain exclusions, minus an agency-wide 1.28% funding rescission.

On February 5, 2007, the Bush Administration released its FY2008 budget request, including almost $796 million for NMFS. The FY2008 request for funding for NMFS under the Operations, Research, and Facilities (OR&F) Account is $37.4 million (5.6%) above the funding enacted for FY2006. However, total NMFS funding would decrease by $7.9 million (1.0%) from that enacted for FY2006, primarily due to decreases in Procurement, Acquisitions, and Construction. Major increases requested in excess of enacted FY2006 funding in NMFS's portion of the OR&F Account include:

- Fisheries Research and Management Programs: + $27.7 million
- Pacific Salmon Management Activities: + $11.4 million
- Survey and Monitoring Projects: + $10.7 million
- Observers/Training: + $9.1 million
- Protected Species Research and Management: + $8.5 million
- Improve Stock Assessments & Data Collection: + $7.9 million
- Economics & Social Science Research: + $6.5 million

Major decreases requested from enacted FY2006 funding include:

- Alaska Composite Research & Development: - $50.3 million
- Hurricane supplemental: - $17.1 million
- Cooperative Research: - $8.9 million
- Other Projects: - $6.1 million
- Marine Turtles: - $3.6 million

Some of these apparent changes in FY2008 funding may represent a reallocation of the “Alaska Composite Research & Development” funding back into more generic programs/activities.