2007
Business Report

NOAA

NOAA FISHERIES SERVICE

Science, Service, Stewardship

U.S. Department of Commerce | National Oceanic and Atmospheric Administration | National Marine Fisheries Service

NOAA Fisheries Service Mission:
Stewardship of living marine resources through science-based conservation and management and the promotion of healthy ecosystems.

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National Marine Fisheries Service
January 2001 – December 2007

By the time this 2007 Business Report is released, I will no longer be with NOAA. I retired December 31, 2007 to become the Dean, College of Marine Sciences at the University of South Florida. I did, however, want to provide you with my final thoughts on what I believe was an outstanding year for NOAA Fisheries Service.

The year 2007 began with NOAA Fisheries Service moving forward to implement the broad changes made by the 109th Congress when it reauthorized the Magnuson-Stevens Fishery Conservation and Management Act at the end of 2006. The spirit of teamwork and collaboration that led to its passage has carried forward to implementation, and I believe you will agree that we have made substantial progress toward reaching the many goals the Act has set for us.

Chief among those goals is halting overfishing by 2010 and reducing bycatch mortality. Working with our partners, (regional fishery management councils, the states and the regional fishery commissions, the fishing industries and conservation groups), we have been able to develop and implement quota systems and other plans that will halt overfishing within that timeframe. We also have developed better fishing gear and techniques that are lowering bycatch in many fisheries.

There are some key projects that NOAA Fisheries Service worked hard to complete in 2007, but remain unfinished, such as Congressional passage of legislation to allow offshore aquaculture in the United States, and stronger international conservation measures for Atlantic bluefin tuna. The United States needs to become more self-sufficient in producing seafood, and the only way to do so is through more aquaculture. The U.S. government has an opportunity to become a world leader in sustainable and responsible aquaculture production. We have an obligation to pursue aquaculture as a form of food production and safety for our citizens.

Since I began as the assistant administrator, NOAA Fisheries Service has become a more transparent, open, and accessible agency with more face-to-face meetings with stakeholders and the implementation of an open door policy. The agency also has done a good job in promoting the importance of the domestic seafood industry and related health messages to the public. We were able to help the fishing industry in the wake of the damage inflicted on marine fisheries and habit caused by Hurricanes Katrina and Wilma. We have forged new partnerships with the Food and Drug Administration and other federal agencies to increase seafood monitoring. We have demonstrated through a study conducted by the National Academy of Sciences that the benefits of seafood outweigh the risks. I'm proud of our investment in sound research that gets to the bottom line on the issue of seafood and health; that seafood is nutritious, and people should eat at least two servings per week.

As 2007 closed, so did my tenure here at NOAA Fisheries Service. It's been a great run filled with progress and positive change. Although there are things that I did not complete, I believe I'm leaving U.S. fisheries in better condition than I found them. I'd like to thank the Administration for this once in a lifetime opportunity and for giving me the support to get the job done.

I'd like to say thank you to everyone who has made my seven years as assistant administrator successful. I admit there were times when obstacles seemed insurmountable, but communication and collaboration moved us forward. My inspiration over the years has come from the hard working staff of NOAA Fisheries Service. It is their success and hard work that is reflected in this report. Although I stepped down as the assistant administrator at the end of the year, I will continue to serve as the U.S. Commissioner and Chair of the International Whaling Commission in 2008.

Please take a few minutes to review this report that highlights the many successes of the men and women of NOAA Fisheries Service. If you have any comments or questions about this year's business report, please contact Deputy Assistant Administrator John Oliver.

William T. Hogarth

Fisheries Management

Ensuring sustainable harvest of U.S. fish stocks benefits the nation by providing a sustainable supply of wild seafood, socially and economically vibrant fishing communities, and healthy marine ecosystems.

Gearing up for Implementation of the Magnuson-Stevens Reauthorization Act

Magnuson-Stevens Act Reauthorized

The Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (MSRA) was signed on January 12, 2007. The reauthorized Act contains significant new provisions to end overfishing; promote market-based approaches to fisheries management; improve the science used in fisheries management; improve recreational data collection; enhance international cooperation in fisheries management; and address illegal, unreported, and unregulated fishing as well as bycatch of protected living marine resources. Especially notable is the requirement to establish an annual catch limit (ACL) for each fishery, which for the first time creates a mandate with a timetable to end overfishing. The Act included over 100 requirements for reports, studies, Secretarial determinations, and other activities to be completed by specific dates. Throughout 2007, NOAA has made important progress on many of these, such as meeting with Regional Fishery Management Councils and State Marine Fisheries Directors, holding public meetings on ACL guidelines and the environmental review processes, and holding a roundtable with conservation organizations and a workshop on ACL data needs.

Ending Overfishing with Annual Catch Limits

Ending overfishing is a top priority for NOAA Fisheries Service and the Bush Administration. Overfishing is the one factor influencing the status of U.S. fish stocks which fisheries managers can control, unlike environmental variability and pollution. Ensuring sustainable harvest of U.S. fish stocks benefits the

nation by providing a sustainable supply of wild seafood, socially and economically vibrant fishing communities, and healthy marine ecosystems. In 2006, Congress also made clear that ending overfishing was a national priority when it included requirements in the Magnuson-Stevens Reauthorization Act to end and prevent overfishing through the use of annual catch limits (ACLs) and measures to ensure accountability. These requirements provide fisheries managers with a new management framework for ending overfishing.

ACLs will be based on science and set at levels so that overfishing does not occur and accountability measures will ensure that ACLs are effective at preventing overfishing. In February, NOAA Fisheries Service began developing guidelines for these requirements, which will be added to the National Standard 1 Guidelines. NOAA Fisheries Service solicited public comments between February and March and posted the summary report to the Agency's website in July. The proposed guidelines should be available for public comment in early 2008.

Integrating MSRA and NEPA Compliance: NOAA Fisheries Service Develops Proposal for Improved NEPA Process

In 2007, NOAA Fisheries Service embarked on a congressionally mandated mission to improve and streamline fishery management compliance with the National Environmental Policy Act (NEPA). As required by law, NOAA Fisheries Service has been in consultation with the Council on Environmental Quality (CEQ) and the Fishery Management Councils, and has solicited public input in the development of the revised procedures.

In the spring of 2007, NOAA Fisheries Service and the Councils conducted two separate outreach programs seeking public response. NOAA Fisheries Service posted a series of trigger questions on its website requesting public input on how the process should be revised. At about the same time, the Councils, through their Council Coordination Committee (CCC), developed a separate proposal for revised procedures. Each Council conducted a listening session on the CCC proposal, and the CCC provided those additional comments to NOAA Fisheries Service.

NOAA Fisheries Service staff considered Council and public input, and continue efforts to develop specialized fishery management NEPA regulations based on the existing CEQ NEPA regulations. The proposed guidelines should be available for public comment in 2008.

MSRA Workshop Held

On September 25-26, 2007, NOAA Fisheries Service hosted a public workshop on the Magnuson-Stevens Reauthorization Act. The workshop included brief panel presentations, followed by breakout sessions of small facilitated groups. Discussions focused on five issues: Determining Optimum Yield, Ecosystem-Based Management, International Fisheries, Bycatch Management and Aquaculture.

Bycatch Reduction Program to Develop Conservation Engineering Solutions

Section 316 of the MSRA required the Secretary of Commerce, in cooperation with the Regional Fishery Management Councils and other interests, to establish a Bycatch Reduction Engineering Program (BREP) by mid-January 2008. The BREP will develop technological devices and other changes to minimize bycatch, seabird interactions, bycatch mortality, and post-release mortality in federally managed fisheries.

In 2007, NOAA Fisheries Service embarked on a congressionally mandated mission to improve and streamline fishery management compliance with the National Environmental Policy Act (NEPA).

The BREP will: be regionally based; be coordinated with NMFS cooperative research projects; provide information to fishery participants to encourage adoption of BREP technologies; and consult with Councils to incorporate BREP results in fishery management plans.

Section 316 also promotes incentives to reduce bycatch and seabird interactions and promotes projects in cooperation with industry to reduce seabird interactions. The BREP should greatly expand bycatch reduction work carried out by NOAA Fisheries Service in recent years, such as tagging thresher sharks to determine fishing mortality after being released from fishing gear.

Efforts to Address IUU Fishing

NOAA Fisheries Service has been working through its membership in several international organizations to address a growing trend worldwide of illegal, unreported and unregulated fishing (IUU fishing). These fishing activities by vessels that do not follow applicable laws and regulations include the reflagging of fishing vessels to evade controls and the failure to report catches or to misreport.

These irresponsible fishing activities pose a significant threat to the effective conservation and management of fish stocks resulting in adverse consequences for fisheries and for the communities that depend on them. This year, the United States finalized its national plan of action to address IUU fishing. The Department of State coordinated this effort, working with NOAA, the Coast Guard, and other federal agencies.

IUU fishing has implications for the quality of scientific data collection, the problem of bycatch, and the safety of other vessels. Many international organizations have already taken significant steps to address the threat of IUU fishing, including mandatory international vessel registries and a trade sanction process to penalize nations that allow their vessels to participate in IUU fishing.

NOAA Fisheries Service, on behalf of the U.S. Government, is designing a system that will implement our obligations to apply these international decisions to vessels that have been included on IUU vessel lists. In the meantime, NOAA Fisheries Service has been advising the U.S. industry to be aware that many international organizations have already taken action by creating IUU vessel lists and restricting port access.

Community-Based Restoration Program Reauthorized

The NOAA Community-based Restoration Program (CRP) is a financial and technical assistance program authorized under the MSRA, which helps communities implement sound habitat restoration projects. The CRP awards millions of dollars to national and regional partners and local grassroots organizations every year. Under a competitive review process, projects are selected for funding based on ecological benefits, technical merit, level of community involvement, and cost-effectiveness. Although the CRP program encourages meeting a minimum one-to-one match, projects have typically leveraged $3 to $5 non-federal dollars for every NOAA dollar invested.

Ending Overfishing and Rebuilding Overfished Stocks

Assessment Finds Atlantic Monkfish No Longer Overfished

Due to considerable uncertainty regarding the status of the Atlantic monkfish stock and concern about its health, NOAA Fisheries Service conducted a stock assessment as part of a workshop on data poor stocks. The information obtained from the stock assessment allowed new biological reference points to be developed based on revised yield-per-recruit analysis and a new assessment model that incorporates multiple survey indices and catch data. Based on these new reference points, overfishing is not occurring and monkfish would not be overfished. The Councils must adopt, and NOAA must approve, a modification to the monkfish fishery management plan in order to replace the existing biological reference points with those developed in the assessment. Atlantic monkfish has three years remaining in its rebuilding plan.

Irresponsible fishing activities pose a significant threat to the effective conservation and management of fish stocks resulting in adverse consequences for fisheries and for the communities that depend on them.

Seasonal Bottomfish Closures in the Main Hawaiian Islands to Address Overfishing

In response to overfishing of bottomfish in the Main Hawaiian Islands, NOAA Fisheries Service and the State of Hawaii closed the waters of the Main Hawaiian Islands to fishing for seven snapper and grouper species (onaga, ehu, gindai, opakapaka, kalekale, lehi, and hapuupuu) from May 1 - September 30, 2007. Both commercial and non-commercial fishing for these species was prohibited during the closed season. New conservation measures are under consideration, including catch limits, seasonal closures, and new permitting and reporting requirements.

New Measures to Keep Summer Flounder Rebuilding on Track

On January 19, 2007, NOAA Fisheries Service published an emergency rule to revise the 2007 summer flounder total allowable landings (TAL). The revised TAL of 17.11 million pounds was an increase from the 12.98 million pound TAL implemented on January 1, 2007, and reflected an extension of the rebuilding timeframe for summer flounder authorized in the MSRA. The MSRA provided a 3-year extension of the 10-year summer flounder rebuilding timeframe; provided that certain criteria were met (including that overfishing was not occurring). Utilizing a conservative 75-percent probability of success, NOAA

U.S. consumers spent an estimated $65 billion for fishery products in 2005. That total includes $20.5 billion for home consumption and $44.5 billion for restaurants, etc.

Source: Fisheries of the United States 2005 (Published February 2007)

determined that the 17.11 million pound TAL would meet the criteria to rebuild the stock to the target biomass no later than January 1, 2013, the end date of the extended rebuilding timeframe. This emergency rule was extended on July 19, 2007, through the end of 2007.

Rebuilding Plans Revised for Seven Pacific Groundfish Species

NOAA Fisheries Service has modified the rebuilding plans for seven overfished groundfish species: bocaccio, canary rockfish, cowcod, darkblotched rockfish, Pacific Ocean perch, widow rockfish, and yelloweye rockfish. Management measures for 2007-2008 are intended to achieve but not exceed optimum yields; prevent overfishing; rebuild overfished species; reduce and minimize the bycatch and discard of overfished and depleted stocks; provide harvest opportunity for the recreational and commercial fishing sectors; and, within the commercial fisheries, achieve harvest guidelines and limited entry and open access allocations for non-overfished species. The rebuilding

plans are supported by 2007-2008 management measures for groundfish taken in the U.S. exclusive economic zone off the coasts of Washington, Oregon, and California. Together they are intended to rebuild overfished stocks as soon as possible, taking into account the status and biology of the stocks, the needs of fishing communities, and the interaction of the overfished stocks within the marine ecosystem.

Market Based Management

Guidance for Limited Access Privilege Programs

During 2007, NOAA Fisheries Service has been working in partnership with the Regional Fishery Management Councils to continue our joint efforts to increase the use of Limited Access Privilege Programs (LAPPs). The Office of Policy worked with internal and external technical contributors to develop a NOAA Technical Memorandum entitled "The Design and Use of Limited Access Privilege Programs." This non-binding technical advice evaluates the relative pros and cons of various LAPP approaches and includes options available to address general questions about the future use of LAPPs given past domestic and international experiences. The Office of Sustainable Fisheries has begun the development of a rulemaking process to provide legal guidance on the requirements in the LAPP provisions of the MSRA. In August and September 2007, scoping was conducted that requested input from stakeholders on which portions of the LAPP provisions have generated questions and the need for guidance.

Final Rule Establishes Red Snapper IFQ Program

NOAA Fisheries published a final rule to implement Amendment 26 to the Fishery Management Plan for Reef Fish of the Gulf of Mexico. Amendment 26 establishes an individual fishing quota (IFQ) program for the commercial red snapper sector of the reef fish fishery in the Gulf of Mexico. Initial participants in the IFQ program will receive percentage shares of the commercial quota of red snapper based on specified historical landings criteria. The percentage shares of the commercial quota will equate to annual IFQ allocations. Both shares and IFQ allocations will be transferable. The intended effect of this rule is to manage the commercial red snapper sector of the reef fish fishery to preserve its long-term economic viability and to achieve optimum yield from the fishery.

Georges Bank Cod Fixed Gear Sector Created

In 2004, Amendment 13 to the Northeast Multispecies Fishery Management Plan (FMP) established a process for the formation of sectors and a process for annual approval of proposed sector operations. Framework Adjustment 42 to the FMP created the Fixed Gear Sector, the second approved sector of the FMP, in 2006. Because Framework 42 was approved mid-way through the 2006 fishing year, only one vessel participated in the Fixed Gear Sector during that fishing year. In the current 2007 fishing year, 16 vessels are participating in the Fixed Gear Sector and are projected to fully harvest their allocated 777.1-metric ton total allowable catch (TAC) of cod. This allocation of cod equates to 9.16 percent of the total 2007 target cod TAC for the fleet. The Fixed Gear Sector has submitted

NOAA Fisheries Service continues to expand and enhance its use of Limited Access Privilege Programs (LAPPs) in the North Pacific.

their proposed operations plan for the 2008 fishing year, including a roster of 33 vessels. Due in part to the success of the current two sectors, the Council is considering inclusion of additional new sectors in Amendment 16, scheduled for implementation on May 1, 2009.

Gulf of Alaska Rockfish Program

NOAA Fisheries Service continues to expand and enhance its use of LAPPs in the North Pacific. In 2007, the Alaska Region established a quota-based management program for multi-species rockfish trawl fisheries in the Central Gulf of Alaska. The LAPP provides exclusive harvest privileges, or quota, to harvesters. Quota shares can be traded among participants, allowing fishermen to use an open market to buy or sell shares as necessary for their fishing operations.

Congress provided NOAA Fisheries Service general authority to implement this program — the details of the LAPP were developed after several years of collaborative efforts with the North Pacific Council, the fishing industry, and other public participants. Shore-based trawl catcher vessels and offshore trawl catcher/processor vessels are included in the program.

In the first year of fishing under the new management system, fishermen met many of the goals set for the program, including: keeping harvests below established catch limits; spreading catch throughout a

longer portion of the year; improving handling and fish quality resulting in better dockside prices; allowing harvesters to avoid dangerous weather by reducing the incentives to race for fish because their allocation is exclusive and guaranteed; coordinating deliveries to processing facilities thereby improving their operating efficiency; and reducing bycatch rates of non-target species.

NOAA Fisheries Service also improved the data collection and monitoring of this fishery by expanding the use of onboard observer coverage, video monitoring, onboard scales, and real-time electronic catch reporting.

FishWatch Developed to Aid Consumers

NOAA Fisheries Service has developed a new consumer information product called FishWatch which was launched in August, 2007. Unveiled at the Great American Seafood Cook-off in New Orleans, the initial reaction from consumers to the internet-based information was tremendous. More than 25,000 visits to the site were recorded in the first week, and the site continues to receive significant consumer attention.

At the launch, the web site contained information on 25 key species, as well as a number of background pages that explored many topics from Seafood and Health to an essay on how Fisheries Management works. Since then, an additional 11 species have been added, bringing the total to 36 species by the end of 2007.

Minimizing Bycatch

New Requirements to Address Bycatch in Atlantic Shark Fishery

NOAA Fisheries Service published a final rule on February 7, 2007, that requires participants in the Atlantic shark bottom longline fishery to operate fishing gear and follow protocols to increase the survival rates of sea turtles and other protected species caught in longline fisheries. Shark fishermen (gillnet and longline) are also now required to attend safe handling and release workshops that provide hands-on experience using this gear. This will allow protected resources and non-target species caught on shark bottom longline gear to be disentangled from fishing gear and, if appropriate, to have fishing hooks removed.

Measures implementing the Atlantic Large Whale Take Reduction Plan were finalized in October 2007, and include additional restrictions placed on shark gillnet fishermen. The rule prohibits gillnet fishing within the Southeast U.S. Restricted Areas during annual periods that coincide with the right whale calving season. Shark gillnet fishing is allowed within certain portions of the calving grounds, however, restrictions on shark gillnet gear are in place to reduce the probability of any interactions with Atlantic right whales.

In the fall of 2007, NOAA Fisheries Service requested public comment on a new shark fishery management plan. This rule proposed several changes to the Atlantic shark fishery in light of new stock assessments, including a reduction in shark fishing effort and reduced annual quotas. The proposed rule is also expected to reduce interactions with protected resources, prohibited sharks, and other non-target species in shark longline and gillnet gear.

Emergency Rule to Reduce Haddock Discards

In response to a New England Fishery Management Council request, the Secretary of Commerce, on August 10, 2007, implemented an emergency action to lower the minimum size of haddock to 18 inches for vessels fishing in the Gulf of Maine and on Georges Bank (GB). Because of a 19 inch size limit, fishermen were forced to discard large numbers of haddock that were just under the minimum size. The underlying reason for these discards is that there is a very large (2003) year class of haddock, the largest since 1963. However, it is growing more slowly than scientists anticipated. The temporary 18-inch minimum size limit enabled a larger fraction of the haddock catch to be landed until the haddock population grows to 19 inches.

NOAA Fisheries Service Northwest Science Center scientists are providing compelling suggestions for helping consumers manage the benefits and risks of eating seafood.

Although GB haddock is overfished, overfishing is not occurring. In recent years, less than 50 percent of the target Total Allowable Catch has been harvested. Allowing fish that would otherwise be discarded to be landed is not expected to increase fishing mortality, because there is limited selectivity in the gear used to catch haddock. NOAA Fisheries Service has monitored this fishery closely and there is evidence of a decline in the discard rate and no increase in fishing effort. The emergency rule has been extended into 2008.

New Fishing Restrictions to Address Overfishing of Red Snapper

NOAA Fisheries Service published a temporary rule on April 2, 2007, to reduce fishing mortality on red snapper by reducing harvest and bycatch levels. The regulations reduce the commercial and recreational quotas for red snapper, reduce the commercial minimum size limit for red snapper, reduce the recreational bag limit for Gulf red snapper, prohibit the retention of red snapper under the bag limit for captain and crew of a vessel operating as a charter vessel or headboat, and establish a target level of reduction of shrimp trawl bycatch mortality of red snapper.

This rule was extended through March 28, 2008, to continue addressing overfishing of red snapper while the agency considers the more permanent measures recommended by the Council in Amendment 27/14.

Improved Retention and Use of Marine Resources

Beginning in 2008, NOAA Fisheries Service will take two important steps to reduce waste and bycatch in the Bering Sea and Aleutian Islands (BSAI) groundfish fisheries. First, the agency will establish a minimum groundfish retention standard (GRS) for multi-species trawl catcher/processors in the BSAI. The GRS mandates that a minimum amount of groundfish be retained and processed onboard these trawl vessels, reducing waste of marine resources.

Second, NOAA Fisheries Service will implement Amendment 80, a Limited Access Privilege Program (LAPP) for the non-Pollock trawl catcher/processor fleet. This LAPP allows vessel operators to form cooperatives that receive exclusive harvest privileges. It shares many of the design and monitoring provisions used in the Gulf of Alaska Rockfish Program. This program will encourage vessel operators to coordinate their fishing operations to improve the economic efficiency of their operations, better meet the requirements of the GRS, and reduce incentives to engage in wasteful and dangerous fishing practices.

Implementation of Amendment 80 will position roughly 85 percent of the groundfish fisheries of the North Pacific, by both volume and value, under LAPP management. NOAA Fisheries Service anticipates that the fishing industry in the North Pacific will increasingly be able to adjust and refine their fishing operations to reduce bycatch and waste, while increasing their profitability as the race for fish is replaced with market-based quota management.

Changes Proposed for Halibut Catch Sharing Plan

NOAA Fisheries Service proposed changes to the Pacific Halibut Catch Sharing Plan for the International Pacific Halibut Commission (IPHC) regulatory Area 2A off Washington, Oregon, and California. This rule would implement the portions of the Plan and management measures that are not implemented through the IPHC, which include sport fishery management measures for Area 2A. This rule would also revise the Area 2A non-treaty commercial fishery closed areas. These actions are intended to enhance the conservation of Pacific halibut, to provide greater angler opportunity where available, to protect yelloweye rockfish and other overfished groundfish species from incidental catch in the halibut fisheries, and to ensure consistency between State and Federal regulations.

NOAA Approves Standardized Bycatch Reporting Methodology

In October 2007, NOAA Fisheries Service approved an omnibus amendment to all 13 fishery management plans (FMP) of the New England and Mid-Atlantic Fishery Management Councils. This omnibus amendment establishes the standardized bycatch reporting methodology (SBRM) to be used for all 13 FMPs, and covers 39 managed species and 14 types of fishing gear throughout the Mid-Atlantic and New England regions. The amendment explains the methods and processes by which bycatch is currently monitored and assessed for Northeast Region fisheries; determines whether these methods and processes need to be modified and/or supplemented; establishes standards of precision for bycatch estimation for all Northeast Region fisheries; and documents the SBRM established for all fisheries managed through the FMPs of the Northeast Region.

Seafood Health, Safety and Sustainability

Research at Northwest Fisheries Science Center: Seafood and Health

NOAA Fisheries Service scientists are providing compelling suggestions for helping consumers manage the benefits and risks of eating seafood. The scientists have developed a paper entitled, "The Seafood Dilemma, a Way Forward," published in May 2007. The study includes recommendations for a standardized program of monitoring and user friendly labeling of seafood.

In the study, the scientists proposed a U.S. national seafood assessment program to provide better and more timely information to consumers and regulators. The program would directly address the seafood dilemma faced by U.S. consumers regarding what species to consume, and should enhance the health benefits derived from increased seafood consumption, as well as public confidence in the seafood supply. Among the proposals in the program; conducting a systematic monitoring program of U.S. harvested fish and shellfish; developing consistent regulatory criteria among federal (e.g., EPA, FDA, USDA, and NOAA), state, and local regulatory agencies; increase the capacity for analyzing pathogens, algal toxins, and chemical contaminants, both for known risks as well as emerging threats; developing a process to quantify nutritionally beneficial components of fish and shellfish, including their omega-3

The President's Gamefish Executive Order

On October 20, 2007, President Bush signed Executive Order 13449, "Protection of Striped Bass and Red Drum Fish Populations." This Executive Order will assist in ensuring faithful execution of the Magnuson-Stevens Fishery Conservation and Management Act, the Atlantic Coastal Fisheries Cooperative Management Act, and the Atlantic Striped Bass Conservation Act, by conserving striped bass and red drum. The Executive Order also contains a policy statement to conserve Atlantic striped bass and red drum for recreational, economic, and environmental benefits, based on sound science and in cooperation with state, territorial, local, and tribal governments. The Executive Order authorizes the Secretary of Commerce, as appropriate, to include the prohibition of sale of striped bass and red drum caught within the Exclusive Economic Zone of the United States off the Atlantic Ocean and the Gulf of Mexico.

fatty acids; and providing this information in a user-friendly form on our website called FishWatch.

The study noted that developing such a program to deal with the complexities of the seafood dilemma would not be a trivial task, but the potential benefit to public health and well-being would make the effort worthwhile.

Research and Monitoring at the National Seafood Inspection Lab: Seafood Safety

The National Seafood Inspection Lab (NSIL) in Pascagoula, Mississippi, provides routine monitoring of contaminants, pathogens, and economic fraud in seafood products for NOAA Fisheries Service, the U.S. Food and Drug Administration, U.S. Customs, and others, and provides scientific support to the Seafood Inspection Program. Additionally, in 2007, NOAA Fisheries Service engaged in a variety of activities focused on the safety of seafood products, including developing faster species identification methods for supporting increased monitoring for economic fraud by species substitution (such as Vietnamese catfish fillets sold as grouper fillets).

Seafood is considered important to a healthy diet. NOAA Fisheries Service scientists are obtaining a clearer understanding of the simultaneous influences of omega-3 fatty acids, selenium, and mercury on human neurological development as part of a long-term, ongoing epidemiological study with the Centers for Disease Control, the National Institute of Health, the University of Bristol, and the University of Southern Mississippi.

NOAA Fisheries Service also is acquiring analytical instrumentation and expertise to support increased monitoring for banned pharmaceuticals in aquaculture imports, and are developing a policy for the use of the results from their studies as the basis for improving seafood consumption risk assessments.

Scientists are obtaining a clearer understanding of the simultaneous influences of omega-3 fatty acids, selenium, and mercury on human neurological development.

NOAA Fisheries Service Director Addresses Concerns About Farm-Raised Imported Seafood from China

In June 2006, the U.S. Food and Drug Administration (FDA) issued an import control on farm-raised catfish, basa, shrimp, dace, and eel products imported from China. All shipments of these products from China were detained at the border until importers could prove they were free of antimicrobials (nitrofuran, malachite green, gentian violet, and fluoroquinolone) that are not approved for use in the United States. NOAA Fisheries' Service Director, Dr. William T. Hogarth, expressed support for this action to safeguard the health and well-being of American seafood consumers, and provided reassurance that these import controls should not prompt people to stop eating seafood. Although the FDA says that levels of these drug residues found in seafood are very low and do not pose an immediate health risk, the United States took the action to ensure the long-term safety of seafood. Science has shown seafood to provide tremendous health benefits for Americans.

Framework provided to Establish Seafood Promotion Councils

On April 11, 2007, NOAA Fisheries Service finalized a new framework for the establishment of Seafood Promotion Councils. This program is designed to

inform consumers about the quality of the seafood they purchase. Seafood Promotion Councils may be established by petitioners who produce a particular seafood product. A referendum of that particular industry's participants would then have to be held to approve the establishment of a Council. Participation in the Seafood Promotion Council program is voluntary, and only those wishing to participate in the Council will pay any fees. The Seafood Promotion Councils will not be funded by the federal government; any money spent in the creation of a Council will be recovered from the petitioners or the Council. A Seafood Promotion Council can establish brand labels to designate product quality.

GPRA Measures

Government Performance Results Act (GPRA) performance measures are an important part of how NOAA Fisheries Service demonstrates to the American public that their tax dollars are being well spent in achieving agency responsibilities and goals. In 2007 NOAA Fisheries Service had four GPRA performance measures. These performance measures addressed specific areas in management and science: The fish stock sustainability index (FSSI); the percentage of living marine resources (LMR) with adequate population assessments and forecasts; the number of protected species designated as threatened, endangered or depleted with stable or increasing population levels; and the number of habitat acres restored.

NOAA Fisheries Service met or exceeded its goals for all four of the measures in 2007. Our success in meeting those goals demonstrated NOAA Fisheries Service's progress in its stewardship of living marine resources.

The Fish Stock Sustainability Index was designed to capture information on the majority of NOAA Fisheries Service's most significant managed species. There are 230 fish stocks in the FSSI index in FY 2007. By the end of 2007, NOAA Fisheries Service's score stood at 524, up from 501 at the end of 2005.

The LMR with adequate population assessments measure covers 230 fish stocks and 237 stocks of threatened, endangered, or depleted species, for a total of 467. By the end of 2007, 40.6% of these stocks had adequate assessments, up from 38.8% in 2006.

As of the end of 2007, there were 26 threatened, endangered or depleted protected species with stable or increasing population levels. An additional 5,794 acres of habitat was restored to improve ecosystem function.

NOAA Fisheries Service's fisheries management and science programs were rated as "moderately effective", the second highest rating possible, by the Administration's Program Assessment Rating Tool (PART) evaluation process. In response to the evaluation results, NOAA Fisheries Service is taking action to further improve performance by: addressing overfishing through the establishment and implementation of sustainable annual catch limits for all managed fish stocks; and increasing the number of fisheries managed through market-based approaches, which can lead to longer and safer fishing seasons and provide incentives for conservation.

Habitat Conservation Program

In its first year, NOAA's Open Rivers Initiative completed three projects that restored over 30 miles of spawning and rearing habitat for migratory fish.

New Science-Based Tools Help Identify Essential Fish Habitat Areas

The New England Fishery Management Council has developed new science-based tools for designating essential fish habitat for 27 commercially important Northeast fish species. This tool will allow NOAA Fisheries Service to analyze a combination of fish abundance estimates with data on bottom temperatures, depth, and substrate types. The outcome will be a better understanding about environmental conditions and habitat areas for fish to spawn, breed, feed, and grow to maturity. This more robust analysis will improve NOAA Fisheries Service's ability to protect essential fish habitat from habitat-damaging fishing practices and other coastal and off-shore development pressures.

Beginning to Flow: The First Projects Completed Under NOAA's Open Rivers Initiative

In its first year, NOAA's Open Rivers Initiative completed three projects that restored over 30 miles of spawning and rearing habitat for migratory fish. The obsolete Brownsville Dam, located on the Calapooia River in Oregon, was removed in August 2007 — effectively eliminating an obstruction to migratory fish and a safety hazard to the surrounding Brownsville community. In California, two failing and undersized culverts were removed, allowing endangered salmon to reach their historic spawning and rearing grounds. In collaboration with local communities, the Open Rivers Initiative will continue to restore free-flowing river systems and yield unimpeded fish passage to historic habitat by removing obsolete dams and barriers that dot the rivers of coastal states.

Inaugural Report Builds a Foundation for Protecting Deep Sea Corals

The State of Deep Coral Ecosystems of the United States synthesizes current knowledge of deep coral ecosystems in U.S. waters. Completed in 2007, the report paints a picture of ecosystems at depths greater than 150 feet, revealing greater abundance and variety than was previously recognized. The report was developed under the auspices of the NOAA Coral Reef Conservation Program's Deep Coral Team and written by a team of scientists from NOAA Fisheries Service and the academic community.

Called for in the President's Ocean Action Plan, this peer-reviewed report presents a national overview and seven regional assessments that discuss the biology of deep corals and their associated species, spatial distribution of deep corals, stressors that may threaten their survival, current management measures, and regional priorities for future research. Conservation concerns led Congress to include measures in the MSRA to enhance research and protection of these remarkable habitats.

The United States has become a world leader in efforts to conserve deep ocean habitats. This report provides a basis for continuing efforts by NOAA and its partners to discover, understand, and protect these unique ecosystems.

Coral Reef Conservation Program Prompts Action in America Samoa

The U.S. Coral Reef Task Force held its 2007 fall meeting in Pago Pago, American Samoa, in August. During the meeting, two expert panels—one on coral reef ecosystems in a changing climate and the other on conserving coral reef ecosystems using a regional approach—presented key findings. Findings presented by the latter panel were largely based on data gathered during the NOAA Coral Reef Conservation Program Rapid Ecological Assessment (RAMP) cruises to the region conducted by NOAA Fisheries Service. These data were published in the Coral Reef Ecosystem Monitoring Report for American Samoa (2002-2006) and provided to the Governor of Samoa. The report highlighted the impact of fishing gear used to catch large fish around Samoa. The Governor of Samoa therefore announced a fishing ban on fish (humphead wrasse, bumphead parrotfish, giant grouper, giant trevally, and shark) within territorial waters, as well as a commitment to develop a network of protected areas, in cooperation with regional partners, to help protect coral reef ecosystems.

Also at the meeting, a U.S. Coral Reef Task Force climate change working group was established, and the Governor announced an American Samoa Territorial Executive Order to address the adverse impacts of global warming and resulting climate change. NOAA Fisheries Service scientists, participating through the Coral Reef Conservation Program, are currently researching climate-related issues such as coral diseases (including coral bleaching), coral habitat alteration, and the implications of such problems to fish populations and local human communities that depend on these resources.

NOAA Builds Its Largest Barrier Island Project

In the largest barrier island restoration project ever designed and built by NOAA, 2.6 miles of Gulf of Mexico shoreline—including dune, swale, and beach habitats—were restored at the Chaland Headland restoration site in Louisiana's Plaquemines Parish. Despite delays and damage caused by Hurricanes Katrina and Rita, NOAA completed the first phase of this 800-acre barrier island

NOAA Cooperates with Energy and Defense Sectors to Protect Ocean Assets

NOAA Fisheries Service and the National Ocean Service, with support from other NOAA programs, are working closely with traditional energy sectors (such as oil and gas, hydroelectric dams, and liquefied natural gas) and new energy sectors (such as those focused on wind, wave, current, and tidal power) to help develop energy practices that minimize impacts on the living marine resources that NOAA is entrusted with protecting. While continuing its strong role with traditional energy sectors, NOAA has recently focused on new sectors such as wind-and water-driven energy. NOAA has shared data and information on areas that might be productive from an energy perspective, as well as those especially important for ensuring resource protections. These collaborations will help new industries develop energy in environmentally sound ways, with benefits to the nation's economy, environment, society, and security.

NOAA Fisheries Service and the U.S. Navy are working together to protect marine species during the Navy's mission-critical military readiness training activities, agreeing on a strategy for ensuring compliance with the applicable environmental statutes using available resources from both agencies. The strategy focuses on a thorough analysis of the effects of mid-frequency sonar on the environment in a series of comprehensive regional Environmental Impact Statements. NOAA Fisheries Service is also working with the Navy to ensure compliance with the Endangered Species Act and Marine Mammal Protection Act. This coordination is anticipated to be a 2-year process, from which the agencies could tier subsequent analyses for the purpose of streamlining the permitting process.

NOAA Fisheries Service's Cooperative Approach to Fish Passage on the Feather and Saco Rivers

In 2007, NOAA Fisheries Service successfully used cooperative approaches to ensure access to fish habitat past hydropower dams on the Feather River in California and the Saco River in Maine. NOAA Fisheries Service' proactive and cooperative approach on these two rivers provides healthy habitat for migratory fish and reduced costs for achieving its fish passage goals.

Through the Feather River Habitat Expansion Agreement, two species listed under the Endangered Species Act—Central Valley spring-run Chinook salmon and Central Valley steelhead—will have more habitats for spawning, rearing, and other critical life stages. The agreement was created to collectively resolve blockages to migratory fish passage at the Oroville, Poe, Upper North Fork Feather River, and Rock Creek-Cresta hydropower dams. NOAA Fisheries Service staff partnered with conservation groups, government agencies, and two energy companies to develop a cooperative approach for identifying, evaluating, selecting, and implementing the most promising and cost-effective fish passage actions.

In Maine, NOAA Fisheries Service, the U.S. Fish and Wildlife Service, Maine state resources agencies, conservation groups, and FPL Energy (an energy producing consortium with headquarters in Florida) signed the 2007 Saco Fisheries Assessment Settlement Agreement, which enhances access for migratory fish at multiple hydropower dams over approximately 80 river miles on the Saco River from its mouth to the Maine–New Hampshire border. The settlement provides for an ecosystem approach to river management that protects habitat necessary for the survival of migratory fish. The settlement's approach provides upstream and downstream fish passage for Atlantic salmon, American shad, alewife, blueback herring, and American eel at the river's lower six hydropower projects; includes studies to evaluate fish passage and management needs at specific dams; enhances stocking efforts for Atlantic salmon throughout the Maine portion of the Saco watershed; and will help educate the public about migratory fish and the need for their passage at dams.

project, pumping over 1.7 million cubic yards of sand from offshore to reconnect three island fragments that had been breached by storms and erosion. The project, authorized under the Coastal Wetlands Planning, Protection and Restoration Act, also built over 250 acres of coastal wetland, and was conducted in partnership with the Louisiana Department of Natural Resources.

Louisiana has the highest rate of shoreline erosion in the country, with retreats ranging from 20 feet to more than 100 feet per year. Rebuilding and maintaining the extensive system of wetlands historically nourished by the Mississippi Delta is essential for the future health of estuarine-dependent fish populations. The restored habitat will also help protect the nation's energy infrastructure as well as Louisiana's coastal communities from the devastating effects of wind, waves, and flooding associated with storms.

NOAA Chesapeake Bay Office Deploys Three "Smart" Buoys

The NOAA Chesapeake Bay Office deployed three buoys in 2007 to begin development of the Chesapeake Bay Interpretive Buoy System. The buoy system marks significant points along the Captain John Smith Chesapeake National Historic Trail. These buoys are now operational off Jamestown, Virginia, in the James River; at the mouth of the Potomac River; and at the mouth of the Patapsco River near Baltimore, Maryland. In addition to providing real-time meteorological, oceanographic, and water-quality information at different points along the trail, the buoys promote awareness of the Bay's condition and support stewardship efforts dedicated to the preservation of the Bay and its natural environment. Real-time data from the buoys, historical and cultural content

related to buoy location, and educational applications are available online at www.buoybay.org or by calling 877-BUOY-BAY.

Advancing Research on Invasive Species

NOAA Fisheries Service is collaborating on research to understand and control invasive species in U.S. waters. Along the West Coast, NOAA Fisheries Service is partnering with the NOAA Aquatic Invasive Species program, is modeling the dispersal of European green crabs. The European green crab is implicated in the demise of the bivalve fishery in the northeastern United States and is known to compete with native crab species. The first phase of studies has been completed, modeling the larval dispersal distance from select bays along the U.S. contiguous West Coast. The next phase will model the dispersal of green crab larvae into southern Alaska in order to guide placement of early detection monitoring stations there.

In Alaska, NOAA Fisheries Service is working with state resource agencies and community groups, is training representatives of the Sitka Tribe and the Southern Southeast Regional Aquaculture Association to monitor for green crabs in the region so eradication and control efforts can be implemented should invasive crabs be detected.

On the East Coast, the invasive tunicate, Didemnum sp., threatens benthic fauna, including sea scallops on Georges Bank, the Northeast's most productive fisheries area. Annual ocean-going surveys have been conducted in collaboration with the U.S. Geological Survey and the University of Rhode Island, to determine the distribution, abundance, spreading rate, and ecology of the tunicate in order to identify approaches to addressing the problem.

National Fish Habitat Action Plan Approves Four Partnerships

In October 2007, the National Fish Habitat Action Plan officially recognized its first four National Fish Habitat Partnerships: the Southeast Aquatic Resources Partnership, Eastern Brook Trout Joint Venture, Midwest Driftless Area Restoration Effort, and Matanuska-Susitna Basin Salmon Conservation Partnership. Conservation projects are already bringing together community groups, Native American tribes, state and federal agencies, and conservation and sport-fishing organizations, and include efforts to plant streamside vegetation, remove structures blocking fish from their habitats, and protect intact habitat. Collectively, the four partnerships encompass over 1 million square miles of habitat. With one pilot partnership and 11 new candidate partnerships working to meet the criteria for approval, the Action Plan is moving toward its goal of 12 or more partnerships by 2010.

Celebrating the 15th Anniversary of the Damage Assessment, Remediation, and Restoration Program

On May 23, 2007, dozens of congressional staff and partners gathered to celebrate the 15th Anniversary of the Damage Assessment, Remediation, and Restoration Program (DARRP).

DARRP collaborates to protect and restore coastal and marine resources that are threatened or injured by oil spills, releases of hazardous substances, and vessel groundings. Through the cleanup process, NOAA has successfully protected resources at more than 500 waste sites. During DARRP's 15-year history, NOAA has recovered $437 million through settlements with responsible parties, for the protection and restoration of many thousands of acres of habitat and other resources and services to the public.

DARRP encourages responsible parties to participate in cooperative damage assessment and restoration planning activities. The celebration event highlighted this cooperative approach and the results of DARRP's work across the country.

Habitat Conservation Plan Developed Through Innovative Partnership

NOAA Fisheries Service, in cooperation with Green Diamond Resource Company and the U.S. Fish and Wildlife Service, developed and approved a large-scale habitat conservation plan to conserve ESA-listed Chinook salmon, coho salmon, and steelhead trout on Green Diamond's timberlands in northern California. This 50-year plan covers 416,000 acres critical to the support and recovery of these species. The plan focuses on enhancing and extending habitat by protecting streamside areas, avoiding surface erosion and land slides, accelerating improvement of old and poorly designed roads, and opening access to spawning and rearing habitat that was previously blocked or naturally inaccessible. It is designed to minimize and mitigate the effects of Green Diamond's commercial timber management practices, and provides the company with regulatory assurances that enhance its ability to make long-term investments—thus allowing the company to remain competitive while becoming a better environmental steward.

Protected Resources

The crucial threats to Hawaiian monk seals are food limitation, entanglement, and shark predation.

Agency Undertakes Major ESA Recovery Planning Activities

Pacific Islands — NOAA Adopts Recovery Plan for Endangered Hawaiian Monk Seal

NOAA Fisheries Service adopted a new Endangered Species Act (ESA) Recovery Plan for the Hawaiian monk seal in 2007 and completed a 5-year review of Hawaiian monk seal status, as required by the ESA. The majority of the population of Hawaiian monk seals now occupies the northwestern Hawaiian Islands and there are six main breeding sub-populations. The species is also found in lower numbers in the main Hawaiian Islands, where the population size and range both appear to be expanding. The crucial threats to Hawaiian monk seals are food limitation, entanglement, and shark predation. Serious threats to Hawaiian monk seals are identified as infectious disease, habitat loss, fishery interaction, male aggression, and human interaction. The plan identifies biotoxins, vessel groundings and contaminants as moderate threats to this species.

Recovery Plan Adopted for Puget Sound Chinook

NOAA Fisheries Service released the largest and most comprehensive salmon-recovery plan ever approved by the federal government in 2007. Adoption of the plan was the culmination of more than five years' effort by local communities across the 14 river basins that drain into Washington State's Puget Sound. The plan is aimed at restoring salmon to waters from the crests of the Cascade and Olympic mountains to the sound. NOAA Fisheries Service listed Puget Sound Chinook as threatened under the ESA in 1999, the first of its kind in a heavily urbanized area. In addition to lasting measurable results for salmon, the plan's actions are also expected to provide important ecological benefits to

the overall health of Puget Sound. The recovery plan is notable in that it was developed through the Shared Strategy for Puget Sound, a collaborative conservation effort that includes state, tribal and local governments, industry, conservation groups and others

Recovery Plan Adopted for Upper Columbia River Spring Chinook and Steelhead

NOAA Fisheries Center released its recovery plan for upper Columbia spring-run Chinook salmon and upper Columbia River steelhead. Both populations have been listed under the ESA since the late 1990's, and both are currently listed as endangered. This plan is the culmination of years of work by the Upper Columbia Salmon Recovery Board, consisting of representatives from affected counties and tribes. Local governments, watershed councils, land owners, environmental groups and others were all enormously helpful in creating this plan. A variety of additional partners, representing federal agencies, Washington state agencies, regional organizations, special purpose districts and members of the public, also participated in this recovery planning process. The plan's mission is to restore viable and sustainable populations of salmon and steelhead through collaborative, economically sensitive efforts, combined resources, and wise resource management of the Upper Columbia region.

Critical Habitat Designated for Southern Resident Killer Whales

NOAA Fisheries Service designated critical habitat for the Southern Resident killer whale in three areas: 1) the Summer Core Area in Haro Strait and waters around the San Juan Islands; (2) Puget Sound; and (3) the Strait of Juan de Fuca, which together comprise approximately 2,560 square miles (6,630 sq km) of marine habitat. These designations are expected to significantly contribute to increased protections for the resident killer whale population. The Southern Resident killer whale was listed as an endangered species in November 2005. In analyzing potential areas of critical habitat, NOAA Fisheries Service examined a range of alternatives, and considered economic impacts and impacts to national security. As such, the agency concluded that the benefits of exclusion of 18 military sites, comprising approximately 112 square miles, outweighed the benefits of inclusion because of national security impacts.

Greater Protection for Threatened Staghorn and Elkhorn Coral

In 2007, NOAA Fisheries Service developed a proposed rule detailing the prohibitions necessary to provide for the conservation of elkhorn and staghorn. Coral Biologists estimate more than 90 percent of elkhorn and staghorn corals have been lost because of coral bleaching due to rising sea temperatures, disease, and tropical storm damage. Both species were listed as threatened in May 2006. Species listed as endangered under the ESA are automatically covered by a suite of protective measures and prohibitions in the law. However, for species listed as threatened, such as elkhorn and staghorn corals, these same measures and prohibitions do not automatically apply.

Atlantic Whale Conservation Activities

Right Whale Conservation — Atlantic Large Whale Take Reduction Plan & National Right Whale Ship Strike Strategy

North Atlantic right whales are one of the world's most critically endangered mammal species — as few as 300 individuals may exist. Collisions with ships and entanglement in commercial fishing gear are the primary causes for the species' failure to recover. NOAA took three actions to reduce these threats in 2007, developing a number of ship strike reduction measures, implementing gear modifications to reduce bycatch and protecting right whale calving grounds.

In April 2006, the U.S. government submitted a proposal to the International Maritime Organization (IMO) to modify the Boston area Traffic Separation Scheme to reduce the threat of vessel collisions with right whales and other whale species in the area. The modifications, and some alternatives, were assessed in a U.S.Coast Guard Port Access Route Study. The realignment is expected to result in a 58 percent reduction in the risk of ship strikes to right whales, and an 81 percent risk reduction in ship strikes of other large whale species occurring in the area.

The IMO approved the proposal in December 2006 and the modification was implemented by NOAA Fisheries Service, the National Ocean Service and the Coast Guard on July 1, 2007. A Notice to Mariners was issued advising mariners of the July 1, 2007 implementation date for the new Boston Traffic Separation Scheme, and they were required to update their lithographic nautical charts.

The Atlantic Large Whale Take Reduction Plan, developed by the Atlantic Large Whale Take Reduction Team, includes measures to reduce serious injuries and deaths of right, humpback, and fin whales incidental to commercial fishing. NOAA Fisheries Service finalized additional measures to reduce bycatch along the entire U.S. east coast, including

The Kemp's ridley sea turtle was listed as endangered throughout its range in 1973 under the ESA following a dramatic decline in the latter half of the 20th century.

protections for southeastern right whale calving habitat and broad-based management measures throughout the species' ranges.

A plan amendment to protect right whales in their southeastern U.S. calving habitat was finalized in June 2007. This amendment expands the current Southeast U.S. Restricted Area and prohibits the use of gillnets, with a few exemptions, in this Area during the right whale's calving season.

A second amendment, published in October 2007, has several requirements that reduce right whale entanglements with fishing gear. The requirements include using sinking lines to limit the amount of line in the water column; requiring weak links for trap/pot and gillnet gear that allow the line to 'break' if a whale becomes entangled; time/area management measures that coincide with the movements of large whales; establishing exempted waters where whales typically are not found and therefore gear modifications will not apply; and requiring gear marking to help identify the source of the entangled gear. In addition, the amendment also expands the lobster trap/pot gear requirements to other trap/pot fisheries that pose a similar risk to right whales.

Atlantic Trawl Gear Take Reduction Team

In September 2006, NOAA Fisheries Service established the Atlantic Trawl Gear Take Reduction Team (ATGTRT) to address incidental mortality and serious injury of long and short-finned pilot whales and common and white-sided dolphins in several trawl fisheries, including the Northeast and Mid-Atlantic bottom trawl fisheries and the Northeast and Mid-Atlantic mid-water trawl (including pair trawl) fisheries.

At its inaugural meeting, the ATGTRT began developing a take reduction plan to reduce bycatch of these species. In April 2007, members shifted their focus to the development of a monitoring plan rather than the development of a full take reduction plan since none of the four marine mammal stocks were below their respective potential biological removal rates. NOAA Fisheries Service will be addressing bycatch issues on stocks above PBR while team members will be developing a monitoring plan for the Atlantic trawl gear fisheries that includes separate components to address gear research and education/outreach needs. NOAA Fisheries Service intends to complete this plan in 2008.

Assessment and Protection of Sea Turtle Populations

Final Sea Turtle Observer Rule

NOAA Fisheries Service issued a rule under the Endangered Species Act (ESA) in July 2007 requiring fishing vessels in designated fisheries to take observers on board to help collect information on bycatch of sea turtles and to enhance the agency's ability to address the sea turtle bycatch problem. Observers will help determine whether existing measures to reduce sea turtle bycatch are working, or whether new or additional measures are needed. The rule applies to designated fishing vessels operating in both state and federal waters, and to designated U.S. fishing vessels on the high seas. As part of this regulation, each year NOAA Fisheries Service will publish in the Federal Register a draft and final determination of fisheries it intends to monitor for sea turtle interactions. The determination will be based on the best available information regarding sea turtle-fishery interactions, sea turtle distribution or fishing gear characteristics.

Critically Endangered Kemp's Ridley Sea Turtle is in the Early Stages of Recovery

The Kemp's ridley sea turtle was listed as endangered throughout its range in 1973 under the ESA following a dramatic decline in the latter half of the 20th century. Photographic evidence collected in the 1940's indicated that the population was at least as large as 40,000 nesting females. By the mid-1980's the population had plummeted with only 700 nests documented in 1985. Since the late 1970's the United States and Mexico have worked together in a bi-national program to conserve and recover the species. Today, the Kemp's ridley sea turtle appears to be in the early stages of recovery, due to strict protections afforded by the governments of Mexico and the United States along with assistance from partnerships with state, industry, and non-governmental groups. Just over 15,000 nests were documented in 2007, along with the largest arribada (Spanish for "arrival") of turtles recorded in the last 50 years. The increase can be attributed to two primary factors — full protection of nesting turtles and their nests in Mexico and the requirement to use turtle excluder devices (TEDs) in both countries. TEDs are grid devices, installed in shrimp trawl nets, that allow turtles to escape the net. Without the full protections afforded the species under the ESA, the species would likely have become extinct in the early part of this century.

Partnerships Aid Stranded Marine Mammals and Investigate Causes

NOAA Fisheries Service Manages 10 Marine Mammal Unusual Mortality Events

Title IV of the Marine Mammal Protection Act (MMPA) defines marine mammal Unusual Mortality Events (UMEs) as strandings that are unexpected, involve a significant die-off of any marine mammal population, and demand an immediate response. During 2007, there were 10 concurrent UME investigations, including 5 newly declared events, an unprecedented number of events. Investigation of a UME is very difficult, they are logistically complex, labor intensive and very expensive. However, the investigations have important goals: to minimize marine mammal deaths, determine the cause of the event and the effect of the event on the marine mammal population, and to identify the role the environment may have played in the event. In recent years, these efforts to examine carcasses and live stranded animals have improved scientific knowledge of mortality rates and causes, allowing scientists to better understand population threats and stressors, and to determine when a situation is "unusual."

NOAA Fisheries Service Funds 41 Partnership Grants to Respond to Stranded Marine Mammals

In 2007, the John H. Prescott Marine Mammal Rescue Assistance Grant Award Program awarded 41 competitive grants, totaling $3,689,886, to partners in the national marine mammal stranding network. These grants are designed to accomplish several purposes such as: the recovery or treatment of marine mammals; the collection of data from living or dead stranded marine mammals for scientific research regarding marine mammal health; and/or facility operations that are directly related to those purposes. This funding has helped the network and NOAA Fisheries Service make unprecedented improvements in our abilities to respond in emergency situations (natural disasters, oil spills, or disease outbreaks), as well as supporting daily operations to collect baseline data. Since 2001, there have been 270 Prescott awards to 74 unique recipients in 26 states and territories, totaling $23,875,131.

Humpback Whale Rescue in Central California

In May 2007, a cow/calf pair of humpback whales wandered up the San Francisco Bay Delta, eventually ending up 90 miles from the ocean, where they spent 3 weeks in fresh and brackish water. Both whales had external wounds which deteriorated, and appeared to be in declining health. The whales aroused widespread public and media interest. NOAA Fisheries Service's Marine Mammal Health and Stranding Response Program and Southwest Regional Office coordinated the interagency rescue efforts with state and federal partners, bringing together scientists from across the country. Their goal was to herd the whales back to the ocean. NOAA personnel also treated their infections, injecting the whales with antibiotics using a dart system, the first remote delivery of antibiotics to a large free-swimming whale. Although most attempts to change the whales' behavior were not effective, scientists learned much that will contribute to future rescue attempts. The whales did find their way back to the Pacific, where scientists hope to track them for years to come.

Public Education about Interactions with Protected Species

TurtleWatch Program Helps Fishermen Avoid Sea Turtles

NOAA Fisheries Service's TurtleWatch program provides up-to-date information about the thermal habitat of loggerhead sea turtles in the Pacific Ocean north of the Hawaiian Islands. It was created as an experimental product to help reduce inadvertent interactions between Hawaii-based longline fishing vessels and loggerhead turtles. Derived from the best available scientific information, the TurtleWatch map displays sea surface temperature and ocean current conditions and the predicted location of waters preferred by the turtles.

By identifying the ocean habitat favored by turtles, these maps are expected to help longline fishing vessels pursuing swordfish or other fish species in the region deploy their fishing gear in areas where loggerheads are less likely to occur. In this way, NOAA Fisheries Service hopes to provide benefits not only to the turtles, but also to the fishermen, who operate under strict limits on the number of turtle interactions allowed.

Acoustics Research Conducted

NOAA Fisheries Service is increasingly taking an active role in research and technology using acoustics to detect and characterize marine life, as well identify effects of sound exposure. Several of these efforts include direct studies of marine mammal behavioral reactions to sound exposure, listening and tracking systems to detect deep-diving marine mammals around seamounts, and cooperative efforts with the shipping industry to explore vessel-quieting technologies.

NOAA Fisheries Service & Partners Study Marine Mammal's Reactions to Underwater Sound

NOAA Fisheries Service and a number of participating researchers are leading a major research experiment to investigate behavioral responses of deep-diving cetaceans to different kinds of sounds at a sophisticated underwater listening range in the Bahamas. The project is designed to investigate the reactions of beaked whales to mid-frequency sounds, including the kinds of sonar signals that have induced strong negative reactions previously. The research group includes scientists from six countries organized into specialized teams focusing on different aspects of data acquisition and analysis. The behavioral response study (BRS) uses a state-of-the-art 82-element acoustic range covering a 600-square-mile area to detect and track marine animals. Scientists attach advanced listening tags to animals from small boats as part of the research. Precautionary mitigation and monitoring conditions are being used to ensure that animals are not harmed during the experiments.

Passive and Active Acoustic Sensors Help Understand Beaked Whales in Hawaii

Seamounts can strongly influence the distribution of various marine animals. To study the effects of seamounts on the presence and behavior of cetaceans in the Pacific Islands Region, NOAA Fisheries Service scientists deployed a high frequency acoustic recording package on the summit of Cross Seamount during April through October 2005. The most frequently heard cetacean vocalizations were echolocation sounds similar to those produced by several beaked whale species together with signals consistent with prey capture attempts. Interestingly, these beaked whale signals occurred almost entirely at night. Indirect measurements

of prey presence using a fisheries acoustic echosounder indicate that the seamount may enhance local productivity in near-surface waters. Concentrations of micro-nekton aggregated over seamount in near-surface waters at night and dense concentrations of these organisms were detected near the summit. These results, using different acoustic sensors, suggest that seamounts may provide enhanced foraging opportunities for beaked whales during the night.

International Symposium on Sounds from Large Vessels and Quieting Technologies

NOAA Fisheries Service hosted an international symposium in 2007 on the feasibility and economics of using vessel-quieting technologies on large vessels. The purpose of the symposium was to bring all interested parties together to discuss issues and collaborate on proposals. The discussions were lively and constructive, resulting in many new ideas for actions on technology, information-transfer, and implementation. The symposium was organized into four sessions dealing with: identifying target characteristics for vessel quieting and noise measurement needs; specifying which of the many possible quieting technologies are most important/feasible for large ships; exploring economic and other potential

NOAA Fisheries Service hosted an international symposium on the feasibility and economics of using vessel-quieting technologies on large vessels.

incentives for industry to implement quieting technologies; and synthesizing these options into a "menu" format of technological/operational quieting options.

The 2007 symposium followed up on a NOAA-sponsored symposium several years ago that initiated cooperation among industry, conservationists, and academics to identify and minimize adverse effects of sound from large vessels on marine life.

Science and Technology

The first of a new class of noise-quieted NOAA fisheries survey vessels, the *Oscar Dyson*, successfully completed several acoustic and trawling inter-vessel comparison trials with NOAA survey vessel *Miller Freeman*.

Comparisons Made Between Fisheries Survey Vessel *Miller Freeman* and the New Noise-Quieted Survey Vessel *Oscar Dyson*

The first of the new class of noise-quieted NOAA fish survey vessels, the *Oscar Dyson*, successfully completed several acoustic and trawling inter-vessel comparison trials with NOAA survey vessel *Miller Freeman*. These trials were conducted in association with the 2007 Gulf of Alaska, Bogoslof Island and Shelikof Strait walleye pollock stock assessment surveys. The trials are of particular interest for resource management in Alaska as the *Oscar Dyson* is slated to replace the *Miller Freeman* as the primary acoustic survey vessel.

Gear Development for New Research Vessel *Henry B. Bigelow*

State of the art research survey gear has been developed for the *Henry B. Bigelow* for use in Northeast fishing areas based on advice from the regional Trawl Survey Advisory Panel. Scientists worked with fishermen and industry gear experts in the design, tank testing and field testing of new fishing gear. The new gear is more efficient, samples more of the water column, and will serve as the new standard for bottom trawl surveys. Calibration experiments have been designed and are currently being implemented to insure comparability and continuation of the current 40 year time series of surveys conducted in these important marine fisheries.

Scientists Lead Expedition to Conduct Census of Marine Life

NOAA Fisheries Service scientists led a team of world-renowned taxonomists on a 3-week expedition to French Frigate Shoals in the Papāhanaumokuākea Marine National Monument. The expedition was part of the international Census of Marine Life's Census of Coral Reef Ecosystems. This expedition was the first in a series of proposed surveys to take place around the globe, led jointly by Scripps Institution of Oceanography at the University of California–San Diego, the Australian Institute of Marine Science, and NOAA. The goal of the expedition was to conduct biodiversity surveys, with a focus on small marine organisms (i.e., invertebrates, algae, and microbes). Over 50 sites were surveyed throughout the atoll using a variety of ingenious collection methods including baited traps, brushing of rubble, underwater vacuuming with gentle suction, plankton tows, light traps, and sediment and water sampling. These methods were meticulously developed over the course of a year to minimize impact to the environment. The expedition found several potentially new species of crabs, corals, sea cucumbers, sea quirts, worms, sea stars, snails, and clams. From this expedition, well over 100 new species records will likely be identified for French Frigate Shoals.

NOAA Conducts Important Antarctic Research During the International Polar Year

The U.S. Antarctic Marine Living Resources Program participated in the Census of Antarctic Marine Life Scientific Steering Committee in Bialowieza, Poland. Drawing international attention, 34 researchers from 13 countries participated in the Committee. The program supports and conducts studies that not only support the Census of Antarctic Marine Life objectives, but also support the international Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR), in which the United States is an active member. In March 2007, the program completed the 21st year of in situ field studies in the South Shetlands region of the Antarctic. This expansive effort—a collaboration between NOAA and 10 research institutions representing five countries—conducted ship- and land-based studies focused on Antarctic krill and its predators. Ship-based surveys were conducted aboard the NOAA-chartered *R/V Yuzhmorgeologiya*. During the 35-day charter, the vessel traveled approximately 3,250 nautical miles, and the researchers conducted acoustic transects, conductivity-temperature-depth water collections, and zooplankton net samples. Land-based studies, conducted over the course of 117 days at Cape Shirreff on Livingston Island, focused on krill predators—primarily the Antarctic fur seal and chinstrap and Gentoo penguins. Researchers deployed radio transmitters, time-depth recorders, and ARGOS satellite transmitters, and tagged hundreds of seal pups and penguin chicks. In July 2007, results from the surveys were presented at the CCAMLR meeting. The U.S. Antarctic Marine Living Resources data and associated models were focal points of these meetings, and were integral to subsequent recommendations for fisheries managed by CCAMLR.

iPAQ Data Entry at Sea Speeds up Observer Data Collection

A new modification of hand-held data collection devices now enables observers to enter data at sea electronically and then transfer that data to land based computer databases electronically as soon as they land. Error checking is done as the data are entered. Auditors are finding large reductions in data errors, along with the faster turnaround time. These data are used for quota monitoring in special access and US/Canada sharing agreement fisheries.

A new modification of hand-held data collection devices now enables observers to enter data at sea electronically and then transfer that data to land based computer databases electronically as soon as they land.

Marine Conservation Areas Created to Rebuild Depleted Stocks; Will Use New Scientific Sampling Technologies

Stocks of lingcod and six rockfish species, including four species important to California anglers and commercial fishermen, were declared overfished by the Pacific Fishery Management Council. In response, two marine conservation areas were created in Southern California. To assess the habitat and stocks of selected rockfish species in these areas, the newly developed advanced sampling technologies will allow NOAA Fisheries Service to conduct its mission more efficiently in terms of time and cost, less invasively to marine animals and their habitat, and in a non-lethal manner. The method combines the information obtainable from multi-frequency echosounders mounted on research vessels with video and still cameras deployed from a remotely operated vehicle. Through its cooperative research rockfish project, NOAA Fisheries Service and the council will be able to monitor the recovery of these overfished stocks in support of the West Coast Groundfish Fishery Management Plan.

Commissioning of the *Henry B. Bigelow*

On July 16, 2007 NOAA commissioned its newest fisheries survey vessel, the *Henry B. Bigelow*, at NOAA's Marine Operations Center-Atlantic in Norfolk, Virginia. It is the second of four ships in its class designed and built by VT Halter Marine Inc. in Moss Point, Mississippi. The ship was named in honor of the founding director of the Woods Hole Oceanographic Institution, a pioneering ocean researcher whose extensive investigations are recognized as the foundation of modern oceanography.

The 208-foot ship was built to meet the requirements of NOAA Fisheries Service. Recent acoustic tests run by the U.S. Navy show *Henry B. Bigelow* exceeds standards for a low noise signature set by the International Council for Exploration of the Seas. These standards were developed to optimize the effectiveness of fisheries research across the globe.

Henry B. Bigelow and her sister ships are so quiet that they can study fish without significantly altering their behavior. Their hydroacoustic technology uses sound waves to "see" fish on a computer screen, which makes fisheries assessments more efficient and accurate. Also, the ships can conduct bottom and mid-water trawls while running physical and biological-oceanographic sampling during a single deployment, a combined capability unavailable in the private sector.

With her state-of-the-art technology and unique research attributes, *Henry B. Bigelow* will help manage living marine resources in more than 100,000 square miles of ocean including Georges Bank, one of the world's most productive fishing grounds.

NOAA Fisheries Service successfully surveyed over 40 offshore banks and reefs during 60 days at sea in the Southern California Bight area in 2007 in cooperation with the recreational fishing industry. Nearly 100 species of fish are managed under the West Coast Groundfish Fishery Management Plan. These species comprise significant commercial and recreational fisheries along the West Coast. In California alone, the total value of the recreational component of this fishery is in excess of $200 million annually and there are 313 Commercial Passenger Fishing Vessels operated statewide.

Smart Tags for Yellowtail Flounder

Utilizing archival tags to study the behavior of yellowtail flounder has yielded information not apparent during decades of intense research on this species. Until recently, the well-studied yellowtail flounder was thought to be a "sedentary" fish, feeding on epibenthic fauna and limited to relatively shallow, sandy habitats. This strict habitat preference and the fact that such habitats are spread out along the ocean floor, caused scientists to believe yellowtail flounder had limited movement among offshore banks and shelves. However, the electronic tags revealed that yellowtail flounder exhibit distinct periods of on-bottom and off-bottom behavior, and likely use passive drift in midwater currents to move beyond expected geographic boundaries. These actions are similar to other flatfish species, but had never been discovered in yellowtail flounder until the use of archival tags.

Ultrasonic Telemetry of Atlantic Salmon

NOAA Fisheries Service recently competed 10 years of research studies using ultrasonic telemetry to assess Atlantic salmon smolt migration and completing an extensive study of wild Atlantic salmon estuary/coastal movements and survival of the smolt into the Gulf of Maine. In 2005, the ultrasonic telemetry arrays were moved to the Penobscot River and Bay. The number of target species has been expanding through cooperation with U.S. Coast Guard, University of Maine, Gulf of Maine Research Institute, and St. Andrews Biological Station. Currently, NOAA Fisheries Service deploys the most extensive marine array in the Gulf of Maine and is expanding this offshore. Current species monitored are both wild and hatchery-reared Atlantic salmon, striped bass, Atlantic sturgeon, shortnose sturgeon, and sea lamprey.

Image Analysis of Atlantic Salmon Scales

NOAA Fisheries Service's Atlantic Salmon Research and Conservation Taskforce has been using a state of the art image analysis system to study the rearing origin and growth dynamics of Atlantic salmon for over a decade. The image analysis system is an integrated microscope, video camera and desktop computer system used to measure distances between particular

Utilizing archival tags to study the behavior of yellowtail flounder has yielded information not apparent during decades of intense research on this species.

landmarks on an individual scale sample. These distances are representative of the individual fish's growth patterns in a fashion similar to growth rings of a tree. Data from these measurements can be used to model the growth of an individual fish or a fish population for origin identification (wild spawned or hatchery reared) and to identify the bottlenecks of survival for this endangered species.

Studies Using Remote Sensing Chlorophyll Data Leads to the Development of the 'Parental Condition Hypothesis' of Recruitment Control for Georges Bank Haddock

Researchers at the NOAA Fisheries Service have developed a protocol to partition the time and space dynamics of phytoplankton production for the Northeast Shelf ecosystem. These indices reflect the intensity and magnitude of seasonal plankton blooms. Of particular interest is the pattern that has emerged with the fall bloom on Georges Bank, which appears to affect haddock recruitment. Pre-spawn feeding is hypothesized to affect the quantity and quality of haddock reproductive output. The fall bloom connection is the only hypothesis that explains recent recruitments and in particular the recruitment of the 2003 year class, which was the largest on record.

New Cetacean Sounds Discovered

In the past year, NOAA Fisheries Service researchers described a new kind of dolphin communication. The sound consists of repeated patterns of "burst pulses" of varying lengths. A burst pulse is a series of echo-location clicks that are so close together that they make a continuous buzzing sound. The repeated patterns of these clicks are closer to Morse Code than they are to any previously described type of dolphin call. So far, this type of sound appears to be made only by northern right whale dolphins. It is still not clear how the dolphins use this sound, but the sound is likely to be useful to NOAA researchers in acoustically identifying this species at sea.

International

The United States participated in the first ever joint meeting of the world's five tuna regional fisheries management organizations in Kobe, Japan during the week of January 22, 2007.

Highlights of the 20th Regular Meeting of the International Commission for the Conservation of Atlantic Tunas (ICCAT)

ICCAT made progress on a number of issues at its Twentieth Regular Meeting, which took place in November 2007, in Antalya, Turkey, but it failed to take meaningful action to address its most pressing issue, the decline of the eastern Atlantic and Mediterranean bluefin tuna stock which has been exacerbated by poor fishery monitoring and control. While the United States pressed ICCAT to adopt a measure to suspend bluefin fishing in the eastern Atlantic and Mediterranean until these issues could be addressed, the Commission instead adopted a non-binding measure requesting that member nations submit documents by February 2008 detailing how they are implementing ICCAT's 2006 management plan for the eastern fishery, and complete a report at the end of the fishing season on the results of implementation. ICCAT members also agreed that parties involved in the bluefin tuna fishery hold a stakeholder meeting in March 2008 to review fishery rules and market activities and to work out a voluntary action plan to reduce fishing, caging, and imports to ensure catch levels are commensurate with those specified in the 2006 management plan. In a more positive action, ICCAT adopted a catch documentation scheme for bluefin tuna which should improve overall data reporting since the new approach will cover bluefin whether it enters international trade or not.

Other conservation and management actions taken by ICCAT included: a two-year measure for northern albacore that reduced the total allowable catch; measures for southern albacore that reduced the total allowable catch; measures to reduce fishing mortality in fisheries targeting porbeagle and shortfin mako sharks; a seabird bycatch mitigation measure requiring the use of tori lines on vessels fishing south of 20 degrees South, and requiring line weighting, and the adoption of a closed area in the Mediterranean to improve protection for small Mediterranean swordfish.

In other significant actions, ICCAT agreed to hire outside experts to conduct a performance review of the organization in 2008; amend its illegal, unregulated and unreported (IUU) vessel measure by adding a paragraph providing a process to incorporate vessels on other tuna regional fisheries management organizations IUU lists into the ICCAT IUU list; maintain trade sanctions against certain non-members; and adopt operational data exchange protocols to support implementation of ICCAT's centralized vessel monitoring program. The vessel monitoring program is intended to facilitate at-sea inspections for vessels fishing eastern Atlantic and Mediterranean bluefin tuna.

Finally, the United States representative was selected as Chairman of the Compliance Committee.

Presidential Directive on Destructive Fishing Practices

On October 2, 2006, President Bush sent a memorandum to the Secretaries of Commerce and State regarding "promoting sustainable fisheries and ending destructive fishing practices." Among other things, the Secretaries are to work with other countries to establish regional fisheries management organizations or other cooperative arrangements to protect ecosystems in high seas areas where no international fisheries regulation takes place, especially vulnerable marine ecosystems. NOAA Fisheries Service responded by undertaking initiatives in the high seas areas of the Northwest and South Pacific to negotiate long-term, binding rules governing fisheries that are not presently regulated under international rules. In both areas, NOAA Fisheries Service was successful in getting agreement on voluntary interim measures, such as protecting vulnerable marine ecosystems, that will remain in place until the long-term, binding rules are brought into effect. Both sets of interim measures are fully consistent with recent guidance provided by the United Nations General Assembly.

NOAA Fisheries Service Works to Protect Sawfish and Seabirds

In June 2007 at the 14th Meeting of the Convention on International Trade in Endangered Species (CITES), members overwhelmingly adopted a proposal, put forward by the United States and Kenya, to prohibit international trade (list in Appendix I) of sawfish (Pristidae spp.), a highly endangered shark-like species. Sawfish live in nearshore habitats and are now rarely seen. Like other shark species, sawfish are late to mature, grow slowly and have a very low reproductive rate, characteristics that make them extremely vulnerable to exploitation. All species of sawfish have been listed on the World Conservation Union Red List of Threatened Species as critically endangered globally. Among other uses, sawfish are in demand for use in traditional medicines and live animals for aquaria.

In 2007, NOAA Fisheries Service continued to take a leading role to reduce seabird bycatch internationally by advocating science-based assessments and the application of proven technologies to mitigate the incidental capture of seabirds in longline fisheries. Activities were focused within regional fisheries management organizations whose fisheries have significant overlap with vulnerable seabirds, such as albatrosses and petrels. For example, in the Western and Central Pacific Fisheries Commission, NOAA Fisheries Service worked with other member nations to provide scientific and technical review and advice to the Commission on the adoption of minimum technical specifications for agreed-to seabird bycatch mitigation measures. Within the International Commission on the Conservation of Atlantic Tunas (ICCAT), NOAA Fisheries Service supported the adoption of ICCAT's first measure calling for mandatory use of seabird avoidance measures. The Commission for the Conservation of Antarctic Living Marine Resources (CCAMLR) continued to see reduced seabird bycatch levels in its fisheries through the use of these effective measures. NOAA Fisheries Service worked with CCAMLR to reach out to adjacent regional fisheries management organizations and encouraged seabird bycatch reductions outside of CCAMLR waters.

Pacific Fisheries Conservation

U.S Implements New Treaty Provisions for South Pacific Tuna Fisheries

NOAA Fisheries Service has revised regulations implementing the South Pacific Tuna Act, to reflect the changes agreed to in the Third Extension of the Treaty on Fisheries between the Governments of Certain Pacific Island States and the United States of America. New provisions under the treaty relate to vessel monitoring system (VMS) requirements, vessel reporting requirements, area restrictions for U.S. purse seine vessels fishing under the Treaty, and allowing U.S. longline vessels to fish on the high seas portion of the Treaty Area.

Global Tuna Summit

The United States participated in the first ever joint meeting of the world's five tuna regional fisheries management organizations in Kobe, Japan during the week of January 22, 2007. These organizations are responsible for the

U.S. Hosts International Whaling Commission in Anchorage, AK; Scientific Committee Recommends Approval of Alaska Native Subsistence Quota for Bowheads Based on NOAA's Genetic Research

The United States hosted the 59th annual meeting of the International Whaling Commission in Anchorage, Alaska in late May. US Representatives chaired the meeting as well as serving as head to the US delegation. A critical focus of this year's meeting was the review of the aboriginal subsistence whaling quotas. In the United States, ten Alaska Native villages in the far north conduct subsistence bowhead whale hunts overseen by the Alaska Eskimo Whaling Commission and NOAA Fisheries Service. Also under consideration this year were aboriginal whaling quotas for the eastern population of the North Pacific gray whale by the Makah Indian Tribe. The meeting was extremely successful for the United States. The Commission renewed, by consensus, the U.S. 5-year aboriginal subsistence whaling catch limits for both bowhead and gray whales. Another issue that received consensus support was a resolution by members to reinforce IWC's commitment to safety at sea and protection of the environment. The daily proceedings of the 2007 IWC meeting are available on the Internet at http://www.iwcoffice.org/meetings/meeting2007.htm

The Commission also agreed to a proposal from Dr. Hogarth, as Chair, to hold an intercessional meeting to discuss the future of the IWC.

management of highly migratory species, such as bluefin tuna and swordfish throughout the world's oceans. The groups represented at the meeting included the Inter-American Tropical Tuna Commission, International Commission for the Conservation of Atlantic Tunas, Indian Ocean Tuna Commission, Western and Central Pacific Fisheries Commission, and the Commission for the Conservation of Southern Bluefin Tuna.

The newly reauthorized MSRA calls for the United States to use multilateral activities such as the Kobe meeting to strengthen regional action on illegal, unregulated and unreported (IUU) fishing and bycatch. The issue of IUU fishing was discussed throughout

The newly reauthorized Magnuson-Stevens Act (MSRA) calls for the United States to use multilateral activities such as the Kobe meeting to strengthen regional action on illegal, unregulated and unreported (IUU) fishing and bycatch.

the week, particularly as it related to overcapacity and effects on non-target species.

In addition, the meeting included discussion of performance evaluations for each of the five tuna regional fisheries management organizations as has been called for by the U.N. Fish Stocks Agreement Review Conference. Participants agreed to a "Course of Action", which lays out 14 key areas and challenges facing the tuna RFMOs. Within this course of action was the formation of a technical Working Group to look at issues such as harmonization of trade tracking programs. The United States hosted the first meeting of the technical working group in July, 2007 in Raleigh, NC. The technical working group agreed on several proposals to circulate to the tuna regional fisheries management organizations for their consideration on ways to improve and harmonize catch and trade monitoring schemes.

Western and Central Pacific Fisheries Commission

Reauthorization of the MSRA included the Western and Central Pacific Fisheries Convention Implementation Act. NOAA Fisheries Service, the Department of State and the regional fishery management councils are working on a proposed set of regulations to implement the basic provisions of the WCPF Convention and related decisions of the Commission. NOAA Fisheries Service is leading efforts to establish a Permanent Advisory Committee and is developing a memorandum of understanding with the Western Pacific, Pacific and North Pacific Fishery Management Councils that clarifies their role. NOAA Fisheries Service anticipates issuing a proposed rulemaking in early 2008.

Inter-American Tropical Tuna Commission

In 2007, the Inter-American Tropical Tuna Commission (IATTC) struggled with conservation measures for yellowfin and bigeye tunas, requiring the scheduling of two additional meetings. The Commission adopted a U.S. proposal to strengthen sea turtle mitigation measures. This resolution requires the implementation of United Nations Food and Agriculture Office guidelines to reduce sea turtle bycatch, injury and mortality and, if practicable, to bring aboard and resuscitate any comatose sea turtles. The United States took the lead role in bringing this resolution to strengthen sea turtle mitigation measures in the Pacific Ocean to the table at the IATTC. Also, after eight years of difficult negotiations, the United States led the adoption of a new formula for allocating IATTC expenses among members based on catch and utilization of eastern Pacific tunas and the level of national economic development.

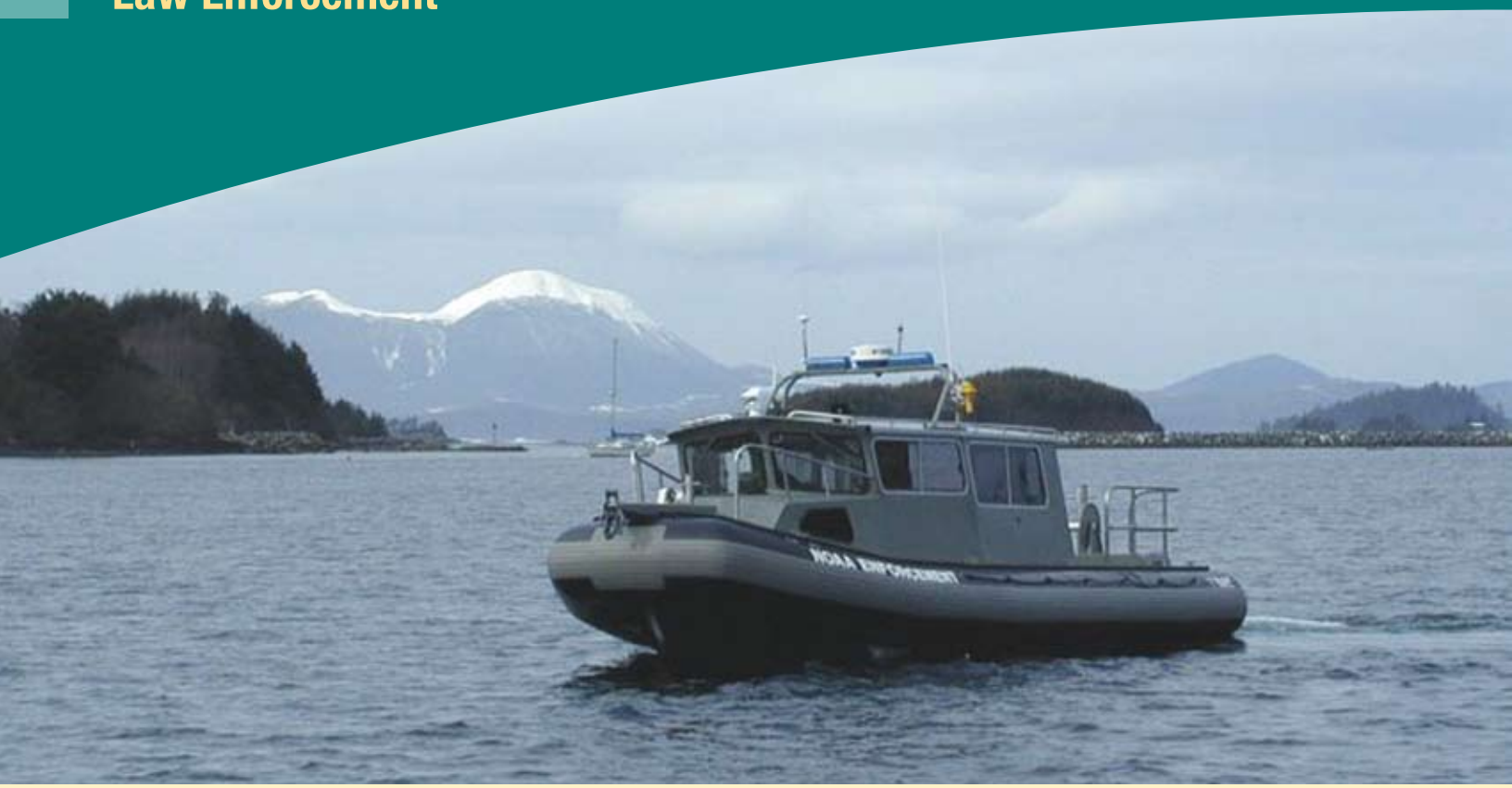
Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) Acts to Protect Vulnerable Marine Ecosystems

CCAMLR adopted a conservation measure during its 2007 meeting designed to meet the deadline set by the United Nations for protecting vulnerable marine ecosystems (VMEs) from significant adverse impacts. "Bottom fishing activities" was defined by CCAMLR to include the use of any gear that interacts with the ocean floor. The measure limits bottom fishing activities through November 30, 2008 to those areas for which bottom fishing activities were approved by CCAMLR in the 2006/07 fishing season. Beginning December 1, 2008, all individual bottom fishing activities will be subject to assessment by CCAMLR's Scientific Committee to determine if they would contribute to significant adverse impacts to VMEs. The measure includes a move along and reporting rule when a vessel encounters a VME.

Conservation and Management of Pollock Resources in the Central Bering Sea

The United States participated in the 12th annual Conference of Parties to the Convention on the Conservation and Management of Pollock Resources in the Central Bering Sea, in September, 2007 in Beijing to finalize 2008 management decisions for this stock. Although there has been a prohibition on direct pollock fishing since 1994, the Parties have cooperated on scientific research, including examining factors that would affect pollock population dynamics and recovery. The management decisions for 2008 were based mainly on U.S. research conducted by the NOAA Research Vessel Miller Freeman on the spawning concentrations of pollock in the Bogoslof Island area. The survey reaffirmed that the pollock resource is low in abundance, at 29 percent of the minimum biomass necessary to set an Annual Harvest Level (AHL). As a result, the Parties set the AHL for 2008 at zero.

Law Enforcement



NOAA Fisheries Service, in collaboration with State and territory partners, is leading the first comprehensive inventory and assessment of all US coral reef protected areas.

Vessel Monitoring Continues to Expand

NOAA Fisheries Service has expanded Vessel Monitoring System (VMS) coverage to over 5,000 vessels, a 24 percent increase over last year (3,800 vessels). To date, over $2.9 million has been disbursed to fishermen through an arrangement with the Pacific States Marine Fisheries Commission to reimburse them for the purchase of VMS units (1239 vessels reimbursed thus far).

$15.3 Million Granted to U.S. States and Territories

NOAA Fisheries Service negotiated 27 Joint Enforcement Agreements during 2007. Twenty-two eligible States and five Territories and Commonwealths will receive over $15.3 million dollars in Federal assistance. This includes $100,000 which will go to Puerto Rico, who for the first time has entered into a Joint Enforcement Agreement. The 2007 Joint Enforcement Agreements will result in 141,900 hours of law enforcement services from State and Territorial partners. Over the past six years, this Cooperative Enforcement Program has granted $80 million to states and territories for joint marine conservation law enforcement activities.

Illegal Harvest and Export of Coral Leads to Federal Sentence

In July 2007, a Florida man plead guilty to illegally harvesting brilliantly colorful Ricordia Florida coral (a corallimorph), prized by saltwater aquariums owners, from the Florida Keys National Marine Sanctuary. He was subsequently sentenced to 10 months in Federal prison and forfeiture of his thirty four foot sailboat. NOAA Fisheries Service enforcement agents investigated after receiving information indicating he was illegally selling contraband Ricordia with chipped Live Rock substrate to aquarium marine life dealers in Germany. NOAA Fisheries

Service enforcement agents working with U.S. Fish and Wildlife Service agents and Florida Fish and Wildlife Conservation Commission officers were able to intercept two German nationals at the Miami International airport with 500 specimens in their possession.

Seafood Importer Sentenced to 51 Months in Prison and Ordered to Pay $1.13 Million for Illegal Shipments

Following an investigation, the owner of a seafood import company was sentenced to 51 months incarceration in Federal Prison. A $1,139,000 fine also was levied against him and his companies for conspiring with Vietnamese fish exporters to intentionally mislabel hundreds of thousands of pounds of Vietnamese catfish to avoid U.S. anti-dumping duties imposed by the U.S. Department of Commerce. The owner had pled guilty to importing falsely labeled containers of catfish to avoid tariffs.

Whale Tour Operator Receives Civil Penalty for Colliding with Endangered Humpback Whale

Following an investigation that ended in early 2007, the operator of a Juneau based whale-watching tour vessel was fined $7,000 for colliding with an endangered humpback whale. The owner of the vessel and the tour company were penalized an additional $2,000. In August of 2006, the tour vessel was conducting a wildlife viewing cruise in Stephens Passage near North Pass in Southeast Alaska when the captain maneuvered the vessel into the path of three oncoming whales, placing the vessel closer than 100 yards from the endangered humpback whales. Subsequently, one whale collided with the vessel. A passenger suffered a head injury in the collision, requiring hospitalization.

Owners of Transport Ship Pay Damages for Cargo Spilled into the Monterrey Bay National Marine Sanctuary

Owners and operators of the *M/V Med Taipei* settled with the U.S. government for violations of the MSRA. The *M/V Med Taipei* lost a number of shipping containers overboard in the Monterey Bay National Marine Sanctuary due to poor loading of the container vessel. The fifteen containers carried an assortment of items including; furniture, wheelchairs, clothing, hundreds of thousands of plastic items, several miles of cyclone fencing, and thousands of tires. The $3.25 million in damages will be used to restore injured sanctuary resources.

Ecuadorian Fishing Vessel Caught Fishing Off Jarvis Island Pays $117,000 Civil Penalty

A foreign fishing vessel, the Ecuadorian *FV San Andres*, was caught by the United States Coast Guard fishing illegally in the U.S. Exclusive Economic Zone surrounding Jarvis Island, a U.S. insular possession in the Pacific Ocean. The investigation into this matter confirmed the violation, and that the company that owned the vessel was based out of Ecuador. A $117,000 civil penalty was issued by NOAA's Office of General Counsel for Enforcement and Litigation and the company paid the full amount of the penalty.

Fishing Vessel Receives First Civil Penalty for Fishing illegally in Papāhanaumokuākea National Marine Monument

A $60,000 civil penalty was assessed to the owner and operator of a U.S. vessel unlawfully fishing in the Papāhanaumokuākea Marine National Monument. This case was the first federal enforcement action taken since President

Following an investigation that ended in early 2007, the operator of a Juneau based whale-watching tour vessel was fined $7,000 for colliding with an endangered humpback whale.

Bush declared the area around the Northwestern Hawaiian Islands a marine national monument on June 15, 2006. The fishing vessel was first detected by NOAA Fisheries Service's Vessel Monitoring System, and visually confirmed by a U.S. Coast Guard aircraft on an over-flight. The civil penalty includes three counts of entering the monument and unlawfully harvesting monument resources. The owner and operator were also charged with possessing fishing gear that was not stowed or otherwise unavailable for use and failing to possess a valid Hawaii longline permit. While commercial bottomfishing continues to be allowed in the monument for a limited time

for those already in possession of valid Federal bottomfish permits, all other commercial and recreational fishing is prohibited.

NOAA Issues $1.16 Million in Penalties to Lobsterman for Violations

NOAA's Office of General Counsel issued a $1.16 million Notice of Violation to the owner and operator of the *FV Reaper* and *FV Twister*, for multiple violations of the MSRA and the Atlantic Coastal Fisheries Cooperative Management Act. During the course of this investigation, 426 lobster traps were seized in Pt. Judith, Rhode Island. This case involved NOAA Fisheries Service agents and state officers from Rhode Island and Connecticut working under the Joint Enforcement Agreement.

Poachers Indicted on Criminal Lacey Act Charges: Indictments Include Illegal Poaching & Smuggling of Leopard Sharks

A California man was sentenced to one year and one day in prison and ordered to pay $100,000 restitution for his role in catching thousands of undersized juvenile leopard sharks in San Francisco Bay and selling them to aquarium dealers in the U.S., the United Kingdom, and the Netherlands. The sentencing was the result of a nearly two-year investigation conducted by NOAA Fisheries Service Enforcement agents in conjunction with the U.S. Fish & Wildlife Service, California Department of Fish & Game, the United Kingdom 's Department for Environment

While commercial bottomfishing continues to be allowed in the monument for a limited time for those already in possession of valid Federal bottomfish permits, all other commercial and recreational fishing is prohibited.

Food and Rural Affairs Fish Health Inspectorate and The Netherlands General Inspection Service.

This investigation discovered that a total of six co-conspirators operated a shark smuggling ring which poached and sold over $2 million worth of illegally harvest California leopard sharks around the world in violation of the Lacey Act. The organized smuggling ring of aquaria poachers is believed to have poached over 10,000 juvenile sharks.

Organization and Outreach

At the request of the Gulf of Mexico shrimp industry, NOAA Fisheries Service developed and presented a one-day marketing workshop in New Orleans on August 8, 2007.

NOAA Fisheries Service Co-Hosts Grouper Forum for Constituents in Gulf of Mexico

NOAA Fisheries Service, the Gulf of Mexico Fishery Management Council, and the Florida Fish and Wildlife Conservation Commission sponsored a forum on Gulf of Mexico Grouper February 27-28 in St. Petersburg, Florida. The free public forum provided a unique opportunity for the agencies and stakeholders to explore more effective ways to work together. Topics of discussion included: Understanding the State and Federal Regulatory Process; Understanding Grouper Assessments and Management; Update on Grouper Assessments; Enhancing Public Participation in Science and Management; and Enhancing Communication between Fishery Managers and the Public.

Fishery Managers have seen increased interest from the public on these issues, and additional involvement in management activities.

NOAA Fisheries Service Hosts Marketing Workshop for Shrimp Industry

At the request of the Gulf of Mexico shrimp industry, NOAA Fisheries Service developed and presented a one-day marketing workshop in New Orleans on August 8, 2007. The workshop was focused on providing participants with information they could use to export their products to the European Union. Chief presenters included NOAA Fisheries Service's Commercial Attaché to the European Union, who provided his perspective on import issues, and gave step-by-step instructions on the comprehensive process of successfully importing products. The director of the Seafood Inspection Program, outlined seafood quality and safety concerns and provided guidance on how to improve products. A panel of industry marketing specialists presented their success stories and also discussed overcoming problems. As a result of this meeting, several

industry groups are exploring efforts to initiate or expand exports to the European Union.

Those attending were very positive in their assessment of the workshop and have requested a followup workshop in the future. The workshop presentations and a summary are available on the internet.

Public Workshops on Steelhead Recovery in Central and Southern California

NOAA Fisheries Service hosted two series of public workshops in central and southern California to gather information for the development of federal recovery plans for the Southern California and South-Central Coast steelhead distinct population segments (DPSs) which are listed as endangered and threatened species, respectively, under the Endangered Species Act.

By hosting these two series of workshops, NOAA Fisheries Service was able to gain valuable stakeholder input on steelhead threats and recovery actions in watersheds ranging from the Pajaro River in central California southward to the Mexican border. Attendees included a wide range of interested parties including local water and flood control districts; Federal, State, and local government agency staff; NGOs, and the public.

NOAA Fisheries Service Hosts the 2007 Klamath River Fish Health Conference

NOAA Fisheries Service sponsored the third annual Klamath River Fish Health Conference in partnership with US Fish and Wildlife and US Geological Survey.

The conference provided a forum for the exchange of current information on fish disease in the Klamath River. The information focused on research related to the critical disease outbreaks that have caused mortality in salmon in the Klamath River downstream of Iron Gate Dam. Scientists from agencies and universities presented research results and discussed future approaches to address Klamath River fish disease, including flow alteration and habitat manipulation. The Klamath River Fish Health Conference was successful in bringing together agencies, tribes, stakeholders, and the public, and providing a forum for sharing information on fish health issues of the Klamath River Basin. The conference will remain an annual event, convening again in the winter of 2008 with NOAA Fisheries Service's participation and support.

NOAA Publishes Cooperative Research Guidebook

NOAA Fisheries Service published a new guidebook, entitled Working Together: Developing a Cooperative Research Project and Proposal, to help fishermen identify potential cooperative research topics, establish cooperative partnerships with scientists and other fishermen, and prepare successful cooperative research grant proposals. The guidebook was developed through a collaborative process that involved members of the fishing industry, scientists, and others interested in cooperative research. The guidebook provides background information on cooperative research as well as a step-by-step guide to developing a research proposal. A complementary website provides more detailed "how-to" information for cooperative research applicants including priority needs for research, links to potential cooperative research funding sources, and instructions for obtaining any necessary permits.

Northeast Cooperative Research Video Wins National Award

In Good Company: NOAA's Northeast Cooperative Research Partners Program video won a Telly award in 2007. The video was produced by NOAA Fisheries Service and the NOAA Office of Communications. Highlighting the cooperative relationships developed with the fishing industry to help guide the management of fishery resources in the Northeast Region, the video included exciting on-the-water footage and interviews with fishermen, scientists and managers who participated in the program. The Telly Awards, in their 28th year of competition, honor outstanding local, regional and cable TV video and film productions.

Best Guess Volunteers Support Recreational Data Collection in Hawaii

Father's Day weekend on the island of Oahu was the site for some non-conventional cooperative research by NOAA Fisheries Service volunteers. The Best Guess project was conducted to assist Hawaii Marine Recreational Fishing Survey surveyors in collecting important species-level data on landed fish. Occasionally, the surveyors cannot weigh or measure large ahi (tuna) because the fisherman does not want to remove the fish from the ice slurry, or have it handled by someone other than the crew. Without these important data however, estimates on the amount of fish landed in Hawaii could be wrong.

To solve this problem, a surveyor suggested allowing fishermen to give an approximation of the weight as a suitable proxy for the actual weight. To test this method, NOAA Fisheries Service organized a data collection at Hawaii's largest boat tournament, the Waianae Boat Fishing Club's Ahi Fever. Approximately 200 boats participated and the tournament had a record weekend, weighing in over 30,000 lbs of fish. By the time the last fish was scaled, NOAA Fisheries Service volunteers collected 367 guesses from 226 fishermen. Results showed that these Hawaii fishermen were very adept at guessing weights of their landed ahi and marlin. Eight out of 10 fishermen pinpointed the weight of their fish within 20 pounds and 21 fishermen guessed within a pound. NOAA Fisheries Service scientists will now analyze the information collected at the tournament to determine the best protocol for estimating the weight of recreational ahi catches in the field.

Expansion of Fishing Line Recycling Program in Southeast

NOAA Fisheries Service, working with a number of partners in Florida, is helping to revitalize and expand the Monofilament Recovery & Recycling Program. The program was started by officials of Brevard County, Florida to clean up beaches, fishing areas and other places where discarded fishing line occurred. The program has expanded throughout Florida, and with NOAA's help, is moving into Gulf states, California and soon into Hawaii.

The program is an innovative project dedicated to reducing the environmental damage caused by discarded fishing line. It strives to decrease the negative impacts of monofilament fishing line left in the environment by conducting regular cleanups and by encouraging anglers to recycle their used fishing line at tackle shops and outdoor bins.

Thanks to a grant from the National Ocean Service Office of Response and Restoration-Marine Debris Program, NOAA Fisheries Service has been working in partnership with several states, including Florida, Texas, Louisiana, Mississippi, and Alabama to significantly expand the program. The goal is to expand the program throughout the Gulf of Mexico, the Southeastern United States and the US Caribbean Sea. A similar program is under development with the State of California utilizing funds from the same grant program.

Working with the Florida Fish and Wildlife Conservation Commission, NOAA Fisheries Service also conducted a series of Bin Workshops where volunteers built several hundred collection bins.

In 2007, a study by the journal Endangered Species Research showed for the first time that humpback whales, once hunted to near-extinction in the North Pacific, are now spending their winters in the protected waters of the Papāhanaumokuākea Marine National Monument.

Cooperative Conservation in the Papāhanaumokuākea Marine National Monument

The Papāhanaumokuākea Marine National Monument, created by Presidential proclamation June 15, 2006, is an excellent example of cooperative conservation of the Nation's living marine resources. The monument is managed by NOAA, the Department of the Interior's U.S. Fish and Wildlife Service working closely with the State of Hawaii.

In 2007, a study by the journal Endangered Species Research showed for the first time that humpback whales, once hunted to near-extinction in the North Pacific, are now spending their winters in the protected waters of the Papāhanaumokuākea Marine National Monument. Researchers estimate that approximately twice the amount of suitable wintering habitat is found in the Northwestern Hawaiian Islands as compared to the main Hawaiian Islands.

The Papāhanaumokuākea Marine National Monument is the largest fully protected marine conservation area in the world. The monument provides significant protection for a wide variety of marine wildlife, including endangered species and their habitat.

The Papāhanaumokuākea Marine National Monument is managed jointly by three co-trustees, the Department of Commerce, Department of the Interior and the State of Hawaii, and represents a cooperative conservation approach to protecting an entire ecosystem. The monument area includes the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve, the Midway Atoll National Wildlife Refuge/Battle of Midway National Memorial, the Hawaiian Islands National Wildlife Refuge, the Hawaii State Seabird Sanctuary at Kure Atoll, and Northwestern Hawaiian Islands State Marine Refuge.

Outreach and Education

4th Annual Great American Seafood Cook-Off Held in 2007

NOAA Fisheries Service annually sponsors one of America's most prestigious culinary events each August in New Orleans. In 2007, Louisiana's governor again challenged U.S. state governors to appoint chefs to compete for the honor of being named King or Queen of American Seafood. The Cook-Off is limited to twenty premier chefs who showcase the local cooking styles of their states or embellish on their own personal signature seafood dishes. The primary criterion is that the seafood be harvested exclusively in U.S. waters and be sustainable. NOAA Fisheries Service Director Bill Hogarth, who also acted as a judge for the event, presented the winning trophy to Chef Tim Thomas, of Georgia, for his preparation of Wild Georgia Shrimp Ratatouille with Boursin and Cheese Grits. New for 2007 was a second day focusing on home preparations of seafood. Competing chefs prepared a wide variety of home-style meals, giving consumers attending the event a chance to sample their many simple, yet delicious dishes.

Another first for the 2007 Cook-Off was the unveiling of NOAA Fisheries Service's new consumer education tool, FishWatch. FishWatch is designed to help consumers identify the status of fishery stocks and understand the management and science requirements involved with building and maintaining sustainable fisheries. Those attending the Cook-Off were able to access the internet-based website to learn about many of their favorite seafoods.

Watershed Restoration Technology Transfer

On Nov. 28th, the Watershed Program, part of the Environmental Conservation Division at the Northwest Fisheries Science Center, held its fifth biennial Open House. Nearly 300 participants from throughout the Pacific Northwest, including local, state, regional, federal and tribal government, non-profit organizations, consulting firms, and university students and faculty attended to learn about the research being conducted by the Watershed Program. Topics covered during the Open House included estimates, predictions, and ecology over big areas; secrets of life history diversity; experiments in nutrient additions; recolonization and reintroduction; and informing policy and management. By holding such events, the Watershed Program reaches a wide audience to showcase the exceptional research being conducted by NOAA scientists. The scientist help keep stakeholders abreast of current NOAA research priorities, generating new valuable collaborative opportunities.

NOAA Offers Scholarships for Summer Day Camps

The NOAA Chesapeake Bay Office—in partnership with Nauticus (a maritime museum in Norfolk, Virginia) and the Chesapeake Bay National Estuarine Research Reserve in Virginia—hosted two summer science camps for students aged 9–12. The NOAA @ Nauticus camp examined how the natural resources of the Chesapeake Bay have changed in the 400 years since Captain John Smith explored the watershed. The camp included a visit to the NOAA ship Thomas Jefferson and a kayak trip on the Lynnhaven River that enabled participants to learn firsthand about living resources in the lower part of the Bay. The second summer science camp was held on the campus of the Virginia Institute of Marine Science in Gloucester Point, Virginia. Participants in this camp explored wetlands, underwater grass beds, blue crabs, oysters, and other Bay flora and fauna through field trips, group activities, games, and crafts. The week concluded with a full-day paddle trip on the scenic York River. Both Virginia camps offered full scholarships for participants.

NOAA Celebrates 200th Anniversary

NOAA's 200th Celebration in 2007 highlighted the rich history of science, service, and stewardship provided to the American public by the National Oceanic and Atmospheric Administration and its predecessors. Throughout the year, many stories were told, from the founding of the U.S. Survey of the Coast by Thomas Jefferson to the present-day activities of NOAA as an agency dedicated to the protection, management, and understanding of our ocean, coasts, and skies.

In 1807, President Thomas Jefferson founded the U.S. Coast and Geodetic Survey (as the Survey of the Coast) to provide nautical charts to the maritime community for safe passage into American ports and along our extensive coastline. The Weather Bureau was founded 1870 and, one year later, the U.S. Commission of Fish and Fisheries (parent agency to what is now known as NOAA Fisheries Service) was founded. Individually, these organizations were America's first physical science agency, America's first agency dedicated specifically to the atmospheric sciences, and America's first conservation agency.

During the nationwide celebration, NOAA's scientists, managers and support staff developed and hosted a number of events. Most gatherings were local, celebrated at a science laboratory, a regional center, or other facility. Other gatherings were national in scope. A key part of the NOAA 200th was the exhibit: Treasures of NOAA's Ark: Journey Through Time which started NOAA Heritage Week in February. Guests who traveled through the exhibit's 200 years of NOAA's science, service, and stewardship were fascinated by newly discovered and restored artifacts from NOAA's past, and inspired by the scientific discoveries of NOAA's professionals.

In addition, NOAA Fisheries Service staff also led the development and hosting of a NOAA-wide celebration in collaboration with the Gloucester Maritime Heritage Center and the city of Gloucester, Mass.

Gloucester is America's oldest fishing port and it provided the backdrop for an early autumn NOAA 200th weekend event that featured the NOAA Fisheries Service role in the community. For more than 350 years, Gloucester's residents have made their living from the ocean, drawing on the Atlantic's natural bounty to feed the nation and the world. During the three-day event more than 300 people helped celebrate Gloucester's rich fishing history by participating in a variety of activities including boat building, habitat conservation and fishing gear demonstrations, nautical knot tying, interpretations of marine railway and piers, tours of the ice house, mill building, weather balloon release, and tours of a fishing vessel.

B-WET Chesapeake, coordinated through the NOAA Chesapeake Bay Office, has operated in the Chesapeake Bay since 2002 and has reached approximately 100,000 students and 12,000 teachers.

3rd Annual Summer Science Camp Held

In Seattle, NOAA Fisheries Service staff worked with other NOAA counterparts and the University of Washington Sea Grant program to offer the third annual summer Science Camp at NOAA's Western Regional Center. Campers used critical thinking skills to investigate a fictional fish kill on Puget Sound through a series of hands-on scientific activities. Scholarships were also offered for this program to encourage broad participation from throughout the community.

NOAA's Student and Teacher Education Program Shows Improved Stewardship Ethic

In early 2007, the NOAA Bay Watershed Education and Training Program (B-WET) for the Chesapeake Bay watershed completed an intensive multiyear evaluation that shows that students who participate in programs supported by B-WET are more knowledgeable about the watershed and more likely to take action to protect the Bay. The study also showed that teachers trained by B-WET are more confident in their ability to use field experiences to teach about the watershed and are more likely to do so. B-WET supports the Chesapeake Bay Program's commitment to ensure that every student in the watershed has a meaningful watershed educational experience before graduation. B-WET Chesapeake, coordinated through the NOAA Chesapeake Bay Office, has operated in the Chesapeake Bay since 2002 and has reached approximately 100,000 students and 12,000 teachers.

Use of Barbless Circle Hooks in Hawaii Shoreline Fisheries Promoted to Reduce Bycatch of Fish and Protected Species

NOAA Fisheries Service scientist continue their work with Hawaii recreational shorefishermen on the use of barbless circle hooks during their fishing activities. Already in its third year, the Barbless Circle Hook Project has distributed over 35,000 barbless circle hooks to fishermen in the main Hawaiian Islands. NOAA Fisheries Service is asking fishermen to voluntarily use barbless circle hooks when they see seals and turtles in the immediate area or when they fish areas that have been known to have high levels of interactions with these species.

Two of the largest public shoreline tournaments in the State now have a barbless circle hook category and have seen participation in this category increase annually. In 2007, on the Big Island a monk seal was able to free itself from what turned out to a barbless hook. As a result of this project, Hawaii shoreline fishermen are making an effort to fish responsibly and avoid interactions with marine mammals and protected species.

Seafood Inspection Partnerships

In 2007, the Office of Sustainable Fisheries and the Seafood Inspection Program (SIP) began to expand an informal partnership to better meet agency outreach, food safety information sharing, and commercial trade and industry goals. The Seafood Inspection Program was growing to meet additional domestic and international requests for their services. At the same time the Office of Sustainable Fisheries was focusing its efforts on

Secretary of Commerce Carlos M. Gutierrez (right) visits the NOAA Fisheries Service booth at the 2007 International Boston Seafood Show.

more effective outreach through trade exhibiting and meetings with industry groups. The result was a much more coordinated outreach and communication structure for both Offices.

In April 2007, the Seafood Inspection Program leadership expanded their activities at the Boston Seafood Expo, the Brussels Seafood Expo and the China Seafood Expo. In addition to coordinating with PAC on exhibit layout and design, SIP staff also took advantage of international contacts available through PAC's two commercial trade specialists.

SIP staff are also working more closely with the trade specialists in their areas of expertise, the European Union and the Asian Pacific markets. The specialists help SIP by unsnarling trade problems that may occur, and SIP is working more closely to help with inspection and other support activities that may be needed.

In 2008, the partnership is expected to expand further as SIP supports agency efforts to eliminate illegal, unlawful and unregulated fishing practices. SIP staff will assist as directed to gather samples, coordinate forensics studies and examine seafood product for safety and quality.

Aquaculture

"As a major growth engine, aquaculture can help preserve the historic ties that fishing communities have to the oceans and create a new and vibrant means for job creation."

— U.S. Secretary of Commerce Carlos M. Gutierrez at NOAA's National Marine Aquaculture Summit, June 2007

A national aquaculture summit, the introduction of the National Offshore Aquaculture Act of 2007, a new 10-Year Plan for Marine Aquaculture, and an alternative feeds initiative were among the highlights for NOAA Fisheries Service in 2007.

Convened by U.S. Secretary of Commerce Carlos M. Gutierrez in June 2007, the National Marine Aquaculture Summit attracted over 200 seafood and other industry leaders, investors, policy experts, government officials, researchers, and representatives of non-government organizations from across the nation. Energized by eight panel discussions over two days, participants identified opportunities and challenges for U.S. marine aquaculture and focused on what the federal government could do to help enable a more robust U.S. aquaculture industry. Topics included legislation, research and development, economic incentives, investment programs, and scientific research.

At the heart of discussions was the pending National Offshore Aquaculture Act of 2007. Transmitted to Congress in March and subsequently introduced in the House (H.R. 2010) and the Senate (S. 1609), the bill received a hearing in the House and is awaiting further action by Congress. If enacted, the bill would give NOAA the authority to permit and regulate aquaculture in federal waters, (from state waters to 200 miles off U.S. coasts). The bill would also establish a research program for all of marine aquaculture.

On balance, the summit panelists concluded that the United States is poised and ready to expand ecologically responsible marine aquaculture. They also concluded that legislation

should provide for the development of an environmentally responsible and sustainable aquaculture industry, while also providing the framework for regulatory certainty that will aid development and growth of new business.

The summit also highlighted some of the other important economic drivers that prompted the Administration to develop and propose the marine aquaculture legislation, including a desire to increase domestic production to close the $9 billion seafood trade deficit and to give American seafood farmers and investors greater opportunity to participate in the $70 billion global aquaculture industry. Domestic aquaculture accounts for only about 1.5 percent of global aquaculture production. Experts agree that with seafood consumption continuing to rise in the United States and without legislative action to spur domestic aquaculture, the country will see a major shortfall in seafood supply in the next 25 years.

In October, NOAA Fisheries Service finalized and adopted the 10-Year Plan for Marine Aquaculture as an agency-wide policy document. The plan is intended to guide the agency as it works toward establishing marine aquaculture as an integral part of the U.S. seafood industry and as a viable technology for replenishing important commercial and recreational fisheries. The plan provides specific goals for NOAA Fisheries Service's Aquaculture Program and an assessment of the challenges the agency will face in its effort to reach its goals.

The goals in the 10-Year Plan are:

- A comprehensive regulatory program for environmentally sustainable marine aquaculture;
- Development of commercial marine aquaculture and replenishment of wild stocks;
- Public understanding of marine aquaculture; and
- Increased collaboration and cooperation with international partners.

The plan was prepared by NOAA Fisheries Service at the request of the Marine Fisheries Advisory Committee, which advises the Secretary of Commerce on all living marine resource matters that are the responsibility of the Department.

In November, NOAA Fisheries Service, in partnership with the U.S. Department of Agriculture, initiated a long-term effort focused on accelerating the development of alternative feeds for aquaculture. The purpose of the initiative will be to identify alternative dietary ingredients for aquaculture that will reduce the amount of fishmeal and fish oil contained in aquaculture feeds while maintaining the important human health benefits of farmed seafood.

The program also played an integral part in the completion of the National Aquatic Animal Health Plan which has been submitted for administrative review by federal agencies involved in aquaculture. This plan provides a framework and guidance for the federal agencies responsible for managing aquatic health in the United States.

The agency's primary aquaculture research program, the National Marine Aquaculture Initiative, attracted over 240 proposals seeking $85 million in research funding in 2007. Grant recipients will be announced in 2008.

Awards

2007 Department Gold and Silver Medal Awards

Gold Awards

Individual Award

Gerald Scott – Southeast Fisheries Science Center

For leadership in the scientific assessment and management of fish stocks for the International Commission for the Conservation of Atlantic Tunas.

Group Awards

William Hogarth, Steven Murawski, Samuel Rauch, III, Heather Sagar, Carrie Selberg, Laura Cimo, Mark Holliday, Matteo Milazzo, Alan Risenhoover, Galen Tromble – NOAA Fisheries Service Headquarters

Christopher Scheve, Kevin Allexon – Office of the Secretary

Leah Harrelson – Office of the Under Secretary

Karl Anderson, C. Stewart Harris – NOAA Office of Legislative Affairs

Adam Issenberg, Constance Sathre – NOAA Office of the General Counsel

For leadership in skillfully assisting in passage of the 2006 Magnuson-Stevens Fishery Conservation and Management Reauthorization Act, a major Administration priority.

NOAA's National Hydropower Team

David K. White, Steve Edmondson, James Simondet, Eric Theiss, Steve Thomas, Richard Wantuck – Southwest Regional Office

John K. Johnson – Northwest Regional Office

Kimberly Lellis, Melanie Harris – Office of Habitat Conservation

Prescott Brownell, Stephania Bolden, Miles Croom, Pace Wilber – Southeast Regional Office

Sean McDermott, David Bean, Louis Chiarella, Peter Colosi – Northeast Regional Office

Dan Hytrek, Ruth Lowery, Mark Hodor, Eve Joy, Charles Lynch – NOAA Office of General Counsel

For unprecedented leadership in improving fish passage to ensure sustainability of fish populations and habitat affected by hydropower facilities.

Michael Tosatto – Pacific Islands Regional Office

Daniel Cohen – Office of General Counsel

Tina Wilhelm, Vincent Collins, Sean Corson, Randall Kosaki, Edward Lindelof, Brooke Paige, Michael Weiss – National Ocean Service

Theodore Beuttler, Jane Chalmers, Alexa Cole, Silar Deroma, Adam Issenberg, Joel LaBissonniere, Elizabeth Packard, Mary Ward – Office of the Under Secretary

For extraordinary dedication and professionalism in supporting the establishment of the Northwestern Hawaiian Islands Marine National Monument.

Silver Awards

Individual Awards

Edward DeMartini – Pacific Islands Fisheries Science Center

For developing analyses using visual survey methods, and not physical specimens, to assess the health of central Pacific coral reef fish communities.

Group Awards

Roy Crabtree, Heather Blough, Rodney Dalton, Sarah Devido – Southeast Regional Office

Peter Hood, Antonio Lamberte, John Reed, Philip Steele, David McKinney – NOAA Office for Law Enforcement

Monica Smit-Brunello – NOAA Office of the General Counsel

For design and implementation of an Individual Fishing Quota Program for the Gulf of Mexico commercial red snapper fishery.

Richard Merrick – Northeast Fisheries Science Center

Gregory Silber – Office of Protected Resources

Barbara Zoodsma – Southeast Regional Office

Linda Johnson – NOAA Office of the General Counsel

For leadership in developing a ship strike strategy to recover North Atlantic right whales in partnership with the US Coast Guard and the International Maritime Organization.

Daphne MacFarlan, Thomas Moore – Office of Habitat Conservation

Kevin Kirsch, Sean Meehan – NOAA Ocean Service

For developing and implementing the T/V Margara Emergency Coral Reef Restoration Project to successfully reattach over 10,000 corals.

Randall Absolon, Gordon Axel, Brian Burke, Kinsey Frick, Eric Hockersmith, Byron Iverson, Bruce Jonasson, Mark Kaminski, Darren Ogden, Samuel Rambo – Northwest Fisheries Science Center

For cutting-edge radiotelemetry equipment and research techniques to rapidly provide precise data for management decisions to recover listed salmon.

Kathryn Bisack, Heather Haas, Henry Milliken, Kimberly Murray, Debra Palka, Marjorie Rossman, Gordon Waring – Northeast Fisheries Science Center

John Higgins, Jr., Glen Salvador, John Kenney, Jr. – Northeast Regional Office

For reducing incidental catch of Northwest Atlantic Ocean marine mammals and turtles to promote their recovery to sustainable population levels.

Jeffrey Polovina – Pacific Islands Fisheries Science Center

Gary Hufford – NOAA's National Weather Service

Wolfgang Menzel, Donald Gray, John Sapper, Kent Hughes, Eileen Maturi, Richard W. Reynolds, Xiangqian Wu – NOAA's National Environmental Satellite, Data, and Information Service

For using geostationary satellite data to create sea surface temperature products useful to understand and manage ecosystems, weather, and climate.

NOAA Administrator Awards

Individual Awards

Jennifer Anderson – Northeast Regional Office

For leadership in managing northeast Days At Sea program to provide more timely and detailed data to commercial fishermen and NOAA resource managers.

James M. Coe – Alaska Fisheries Science Center

For leadership at regional and national levels contributing significantly to successful expansion of the Demonstration Project within NOAA Fisheries Service.

Patrick Moran – Office of International Affairs

For adroit leadership in achieving U.S. international fisheries and environmental stewardship objectives at the Northwest Atlantic Fisheries Organization.

Joseph Serafy – Southeast Fisheries Science Center

For advancing scientific knowledge of linkages among tropical mangroves, fishes, and fisheries via First International Symposium on Mangroves as Fish Habitat.

Roy Torres – Office for Law Enforcement

For exposing the largest known shark smuggling operation in U.S. history, and your devotion to the conservation of U.S. living marine resources.

Group Awards

Susan Boring, Madelyn Martinez, Howard Brown, William Leet – Southwest Regional Office

For demonstrating NOAA's commitment to protect people and Endangered Species Act listed fish species in response to northern California flood emergencies in 2006.

William Chappell, Catherine Belli (Retired) – Office of Sustainable Fisheries

For improving quality and timeliness of the regulatory actions required for managing marine fisheries resources, while reducing staff in the clearance process by 50%.

David King, James Smart, Barney Baker, Sand Borrego, Allen Harvison, Scott McKillip, Scott Harrington – Alaska Fisheries Science Center

For nationally recognized leadership in transferring knowledge about fabricating, maintaining, and managing research fishing gear for assessment surveys.

Awards

Brian Lance, Matthew Eagleton, John Olson – Alaska Regional Office

Erika Ammann – Office of Habitat Conservation

Jonathan Taylor, LTJG – NOAA Office of Marine and Aviation Operations

For conceiving, planning, and installing the first modular artificial reef in the sub-Arctic waters off of Alaska to mitigate loss of marine habitat.

Michael Sturtevant, M. Shawn Barry – Office of Management and Budget

Robert Gorrell – Office of Sustainable Fisheries

Bernard Cody, Leila Afzal – NOAA Office of General Counsel

For initiating the first industry/NOAA partnered fishing capacity reduction program, a $35M buyback in the longline catcher processor non-pollock groundfish fishery.

Eric Thunberg, John Walden, Scott Steinback – Northeast Fisheries Science Center

For creativity under pressure in producing high quality economic analyses in support of the NE Multispecies Emergency Action and Framework 42.

Kim Dawson Guynn, Robert Gorrell – Office of Sustainable Fisheries

Dean Swanson – Office of International Affairs

Andrew Cohen Michael Gonzales – Office for Law Enforcement

Robin Tuttle – Office of Science and Technology

For reducing illegal fishing of Patagonian Toothfish in the remote Southern Ocean, and established effective means to promote legal export – import trade of this species worldwide.

David Landsman – Office of Habitat Conservation (member of a Group award submitted by the NOAA Ocean Service).

For successfully implementing an effective and nationally recognized program that supports NOAA's mission to keep our oceans free of marine debris.

2007 NOAA Technology Transfer Award

Vera Trainer, Bich-Thuy Eberhart, John Wekell (Retired) – Northwest Fisheries Science Center (members of a Group award submitted by the NOAA Ocean Service)

For development and commercialization of a rapid, cost-effective detection of algal toxins threatening human health and marine resources in coastal waters.

2007 Department Bronze Medal Award Recipients

Deborah R. Hart – Northeast Fisheries Science Center

For significant advances in the theory of rotational area fisheries and leadership in its application to Atlantic sea scallop assessment and management.

Ellen P. Keane – Northeast Regional Office

For coordinating NOAA's policy position and rulemaking to require "chain mats" in the Atlantic sea scallop dredge fishery to protect sea turtles.

Mary H. Ruckelshaus, Michelle M. McClure – Northwest Fisheries Science Center

For leading 30 authors and 100 reviewers from federal, state, tribal, local government, and non-profit entities in synthesis on the Puget Sound, Sound Science, a report which provides policy makers with the first consensus on threats to the ecosystem and research required for recovery.

William L. Michaels – Office of Sustainable Fisheries

Joseph M. Godlewski – Northeast Fisheries Science Center

For the development and successful deployment of a fiberoptic towed body package capable of housing and deploying a variety of oceanographic, acoustic, and video packages.

Richard H. Towler, Jr., Kresimir Williams – Alaska Fisheries Science Center

For inventing and refining an inexpensive electronic measuring device to provide quick and accurate measurements of fish lengths.

Sarah D. Brabson – Office of the CIO

Shannon W. Sprague – NOAA Ocean Service

Kimberly E. Benson – NOAA Office of Education

For leadership in initiating and overseeing the first evaluation of the Chesapeake Bay Watershed Education and Training program.

Erin E. Kupcha, Holly M. McBride, Otis L. Jackson, Barbara M. North – Northeast Fisheries Science Center

For the development of an at-sea electronic entry system for fisheries observer data, including concept design, testing, and final implementation.

William T. Peterson, Edmundo Casillas, Joanne M. Butzerin, John W. Ferguson – Northwest Fisheries Science Center

For developing a web-based description of eleven ocean productivity indicators which enables the forecasting of adult salmon returns years sooner than previous techniques.

Ann K. Matarese, Janet L. Benson, Deborah M. Blood, Susan J. Picquelle, William Rugen – Alaska Fisheries Science Center

For developing the Ichthyoplankton Information System, a web-based science product which is the first decision support tool providing vital marine larval fish data to resource managers for fisheries management and ecosystem and climate impact assessments.

Daniel Torquemada – Office for Law Enforcement

Brian L. Cluer, Stacy K. Li, Charleen A. Gavette, Charlotte A. Ambrose – Southwest Regional Office

Amanda Wheeland – NOAA Office of General Counsel

For precedent-setting verification of non-compliance with Endangered Species Act requirements to protect listed fish from timber harvest impacts.

Mary E. Rolle, Mark A. Hodor – NOAA Office of General Counsel

Steven A. Kokkinakis, Shelby L. Mendez – PPI

Angela Somma – Office of Protected Resources

Emily R. Lindow – Office of the Assistant Administrator

David A. Bizot, David T. MacDuffee, David Kaiser, John A. Armor – NOAA Ocean Service

For developing and implementing a coordination and review process to expeditiously provide NOAA-wide recommendations on liquified natural gas licensing proposals.

Erik Zobrist, Cheryl Brodnax – Office of Habitat Conservation

Richard Hartman, Rachel Sweeney, Patrick Williams – Southeast Regional Office

Joy Merino Hunter – Southeast Fisheries Science Center

Jason Manthey – Office of the Chief Administrative Officer

Jeannie Jennings, Pamela Stichweh – NOAA Acquisitions and Grants Office

For restoring 1800 essential habitat wetland acres in support of a $1B fishing industry and a buffer to create a more storm-resilient coastal Louisiana.

Scott J. Carlon, Steven M. Fransen, Edward B. Meyer, Bryan D. Nordlund, Melissa G. Jundt, Ritchie J. Graves, Michelle R. Day, Keith R. Kirkendall – Northwest Regional Office

Jane S. Hannuksela, Chris D. Fontecchio – NOAA Office of General Counsel

For intensive negotiations with over 260 stakeholder groups which ensure reliable, clean energy production at 23 hydroelectric projects while conserving protected species.

Timothy J. Tynan, Matt Longenbaugh, Elizabeth G. Gaar, Gary S. Sims, Elizabeth L. Babcock – Northwest Regional Office

Susan Bishop – Northeast Regional Office

For the development of Endangered Species Act recovery plans for Puget Sound Chinook and Hood Canal summer chum salmon, the first ESA recovery plans for species of Pacific salmon to be finalized under the statute's requirements.

Karen H. Abrams – Office of Habitat Conservation

Gretchen Arentzen, Merrick Burden, Stephen L. Copps, Jr., Stephen Freese – Northwest Regional Office

Jane S. Hannuksela, Stacey L. Nathanson – NOAA Office of General Counsel

Suzanne Russell, W. Waldo Wakefield II – Northwest Fisheries Science Center

Mary Yoklavich – Southwest Fisheries Science Center

For protecting U.S. West Coast essential groundfish habitats via regulations to restrict fishing, buy-out trawlers, and create Marine Protected Areas.

Margaret W. Miller – Southeast Fisheries Science Center

Jennifer A. Moore, Stephania K. Bolden – Southeast Regional Office

Andy Bruckner – Office of Habitat Conservation

Marta F. Nammack – Office of Protected Resources

Cheryl Scannell – Office of General Counsel

Brian D. Keller – NOAA Ocean Service

For completing a biological review that led to the successful listing of elkhorn and staghorn corals as threatened under the Endangered Species Act.

Roger P. Hewitt, Kevin T. Hill, Nancy C. H. Lo, David A. Griffith, Ronald C. Dotson, David Demer, Richard L. Charter – Southwest Fisheries Science Center

For conducting the first, international, ecosystem-based synoptic sardine survey along the entire U.S. West Coast, from British Columbia to Baja, California.

Frank Lockhart – Northwest Regional Office (group member – Office of Oceanic and Atmospheric Research)

For extraordinary efforts in support of the White House Joint Subcommittee on Ocean Science and Technology (JSOST), including its development of the first-ever U.S. National Ocean Research Priorities Plan and Implementation Strategy.

Scott Ferguson, Joyce Miller – Pacific Islands Fisheries Science Center (group members – Office of Oceanic and Atmospheric Research)

For conducting complex hydrographic surveys in western Pacific ports to update nautical charts in support of safe navigation and economic development.

Jerome E. Erbacher – Office of Sustainable Fisheries (group member – Office of the Chief Administrative Officer)

For leading a business process reengineering effort, involving over 1300 stakeholders, to strengthen NOAA's budget, workforce management, and grants functional areas.

John Gorman, Steve Ignell – Alaska Regional Office

Carol Ciufolo, Bob Williams – Office of Management and Budget (group members – Office of the Chief Administrative Officer)

For designing and constructing the Ted Stevens Marine Research Institute facility in Juneau, Alaska.

Office of the Chief Information Officer

Dennis Morgan, Jim Sargent – Office of the CIO (group members – Office of the Chief Information Officer)

For systematically updating the NOAA Enterprise Architecture, which enabled Commerce to achieve a favorable OMB rating and serve as a model for other bureaus in the Department.

John Kern, John Rapp – Office of Habitat Conservation (group members – Office of the General Counsel)

For development of the Louisiana Regional Restoration Planning Program, the first statewide program to expedite restoration of injured natural resources.

Deborah Ben-David – NOAA Office of General Counsel

James Lecky, Brandon Southall, Craig Johnson, Jolie Harrison, Steve Leathery, Donna Wieting – Office of Protected Resources

For exemplary work in issuing an MMPA incidental harassment authorization to the Navy for its 2006 Rim of the Pacific exercises in the North Pacific Ocean near Hawaii.

NOAA 2007 Distinguished Career Award Recipients

Lelia Wise – Office of Science and Technology

For exacting attention to accuracy in fisheries data management and an extraordinary willingness to help others during 40 years of service to NOAA and its predecessor agencies.

Robert S. Waples – Northwest Fisheries Science Center

For ground breaking applied research in the field of conservation genetics which greatly advanced the protection of genetic diversity in marine organisms.

John Helle – Alaska Fisheries Science Center

For pioneering scientific accomplishments in measuring the ecological basis of marine productivity, enabling an ecosystem approach to fishery management.

2007 External Award Recipients

December 2006

Robert Avent Medal, Georgia Institute for Biodiversity and Sustainability

Dr. William T. Hogarth, NOAA Assistant Administrator for Fisheries

For outstanding contributions to the understanding and management of fisheries in U.S. waters.

April 2007

Dwight A. Webster Award, Northeastern Division of the American Fisheries Society

Dr. Kenneth Sherman, Director of the Narragansett, Rhode Island Laboratory

Northeast Fisheries Science Center

For sustained excellence in marine fisheries research.

May 2007

William E. Ricker Resource Conservation Award, American Fisheries Society

Resource Evaluation and Assessment Division, Northeast Fisheries Science Center

For outstanding contributions in fisheries resource conservation of groundfish stocks, including scientific basis for rebuilding overfished stocks.

June 2007

Marine Biotechnology Award of Excellence, Pan American Biotechnology Association

Dr. Vera Trainer, Northwest Fisheries Science Center (and colleagues)

For ground breaking study revealing the molecular basis for resistance and accumulation of saxitoxin in softshell clams, published in Nature in 2005.

July 2007

2007 Award of Publication Excellence

James Peacock, Northwest Fisheries Science Center

For excellence in layout and design of the Sound Science Report on the state of science of Washington's State Puget Sound Ecosystem.

September 2007

2007 Dr. Nancy Foster Habitat Conservation Award

Estuaries Section, American Fisheries Society/NOAA Fisheries Service

Dr. Usha Varanasi, Director, Northwest Fisheries Science Center

For 30 years of outstanding contributions towards protecting, conserving, and restoring the Nation's coastal and marine habitat.

November 2007

2006 Presidential Early Career Award for Scientists and Engineers

Dr. Mark Scheuerell, Northwest Fisheries Science Center

For nationally and internationally recognized cutting-edge research into salmon population and ecosystem dynamics.

NOAA Fisheries Service Vision: The American people enjoy the riches and benefits of healthy and diverse marine ecosystems.

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U.S. Secretary of Commerce
Carlos M. Gutierrez

Under Secretary of Commerce for Oceans and Atmosphere and Administrator, National Oceanic and Atmospheric Administration—NOAA
Conrad C. Lautenbacher, Jr.
Vice Admiral, U.S. Navy (Ret.)

Assistant Administrator for Fisheries
NOAA Fisheries Service
William T. Hogarth, Ph.D.

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