NOAA Fisheries Service

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

National Oceanic and Atmospheric Administration (NOAA)

Celebrating 200 Years of Science, Service, and Stewardship

NOAA's 200 years of history begin in 1807 when President Thomas Jefferson signed an Act "to provide for surveying the coasts of the United States." The fledgling nation's success depended on efficient maritime commerce and border defense, and the tools to succeed were accurate charts of shores, waters, and hazards to safe navigation. Thus was born America's first science agency—the Coast Survey—and a tradition of perseverance, scientific integrity, skill bordering on art, and the courage demanded of explorers charting the unknown. Later renamed the U.S. Coast and Geodetic Survey, this agency was among the first incorporated into today's NOAA.

In 1870, the Weather Bureau was created. Now NOAA's National Weather Service, it continues to provide weather information and forecasting services to the nation.

In 1871, The United States Commission of Fish and Fisheries became the nation's first federal conservation agency. The newly formed agency was soon referred to simply as the Fish Commission. Its mandate included the protection, study, management, and restoration of fish. Over the years, NOAA Fisheries Service's name has changed several times, but more importantly, our science and management have evolved to keep pace with our demands on the nation's living marine resources. We also continue to provide vital support to domestic security and global competitiveness and enhance the quality of life for our fellow citizens. Regardless of name, certain principles have remained constant—our basic vision, mission, and commitment to science, service, and stewardship.

Today, waterborne commerce remains the backbone of the U.S. economy, contributing more than 13 million jobs and $1 trillion annually. The fishing industry adds more than $30 billion each year to America's economy. Commercial shipping, fisheries, recreational boating and fishing, tourism, national defense, emergency responders, and coastal management rely on NOAA's nautical charts, tides and currents data, weather forecasts, and an accurate geodetic positioning framework.

We hope you'll share our pride in NOAA. Our agency plays a pivotal role in the life of every American, from weather forecasts, fisheries management, safe navigation, and coastal surveying to remote sensing, climate research, and ocean exploration.

You're invited to help us celebrate 200 years of science, service, and stewardship to the nation.

Visit www.celebrating200years.noaa.gov

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Message from the Assistant Administrator

Two thousand and six was a busy and productive year for NOAA Fisheries Service that ended on the best possible note—on December 9th, the 109th Congress reauthorized the Magnuson-Stevens Fishery Conservation and Management Act, which was a major goal for all of us in 2006. Its successful passage was the result of the hard work and dedication of the women and men of NOAA Fisheries Service, NOAA, and the Department of Commerce, along with the support of the Administration, the Congress, and input from our constituents. It shows that even if we have differences, where there is a common goal, we can be successful. As you read about our activities this past year, you'll also note the same spirit of teamwork that led to the many successes this report presents.

I'd like to emphasize the importance of Congress's action regarding the Magnuson-Stevens Act. It had been 10 years since the last reauthorization, and Congress knew that new strategies and tools were needed. President Bush, through his Ocean Action Plan, made reauthorizing the Magnuson-Stevens Act a top priority. Senator Ted Stevens demonstrated strong leadership in getting this legislation passed, as did Representative Richard Pombo and the staff of the Senate Commerce Committee and House Resources Committee. This legislation is the foundation for our efforts to end overfishing and rebuild and sustain our nation's fisheries, as well as strengthening our international position in the management of fisheries worldwide. I look forward to working on its implementation in 2007.

We began the year with a list of tough priorities, including: reducing overfishing with the goal of ending it altogether, increasing the number of market-based limited access privilege programs, reducing undesirable bycatch, advancing efforts in habitat conservation, improving two-way communications with constituents, responding to the fisheries damage caused by hurricanes Katrina and Rita, improving data collection, and continuing our work with ecosystem approaches to fishery management. We've been working diligently this past year to meet or exceed each of these priorities, and those accounts are included in this report.

Finally, year after year I am continually inspired by the staff of NOAA Fisheries Service, whose hard work is reflected in this report. I invite you to join me as we move forward to tackle the difficult task of managing our nation's fisheries, and as always, if you have any comments or questions about this year's business report, please contact me.

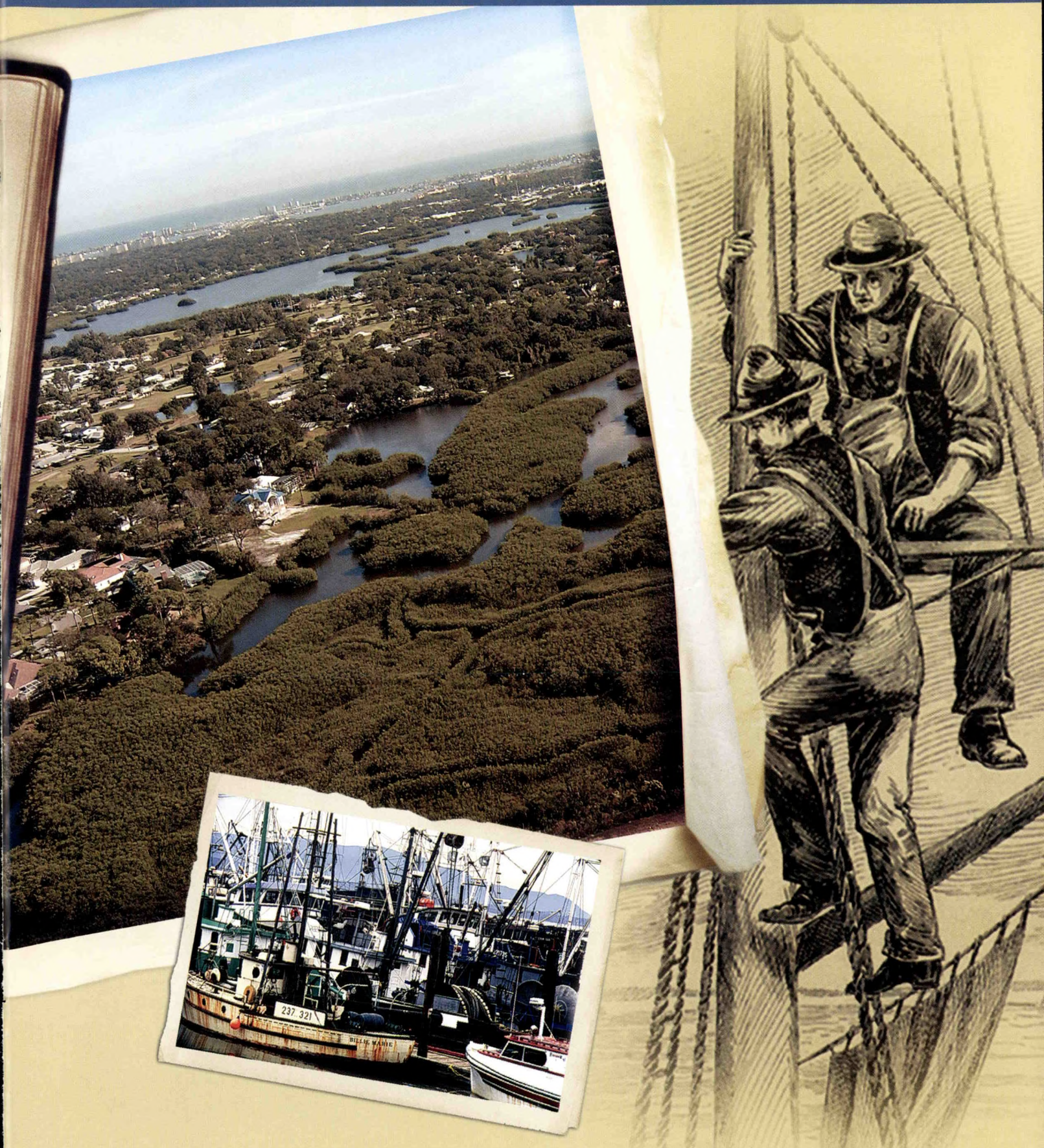
William T. Hogarth

William T. Hogarth, Ph.D.

Assistant Administrator for Fisheries

National Oceanic and Atmospheric Administration

U.S. Department of Commerce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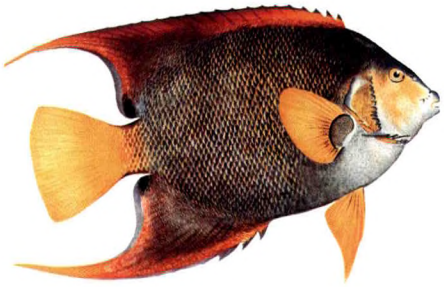
Priorities for 2006

Topping the list of NOAA Fisheries Service's fishery management priorities in 2006 was working with Congress to reauthorize the Magnuson-Stevens Fishery Conservation and Management Act, which Congress passed on December 9. Provisions of this legislation addressed ending overfishing and rebuilding fish stocks, increasing the number of market-based limited access programs, reducing undesirable bycatch and conserving habitat, and improving communications with constituents, which closely match NOAA Fisheries Service's priorities. Other top priorities of fishery management in 2006 included responding to hurricanes Katrina and Rita, improving recreational fishing data, and advancing ecosystem approaches to fishery management.



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2006 Regulatory Actions Taken to Reduce Bycatch

NOAA Fisheries Service implemented a number of actions in 2006 to address a key ingredient in rebuilding the nation's fish stocks—bycatch reduction. These actions allowed fishery managers to meet rebuilding goals while still allowing fishing to continue. Bycatch was reduced through many different means. In some cases, fishermen are providing more information to managers, leading to targeted bycatch reduction. In others, fishing gear is modified to provide additional protections to marine species during fishing operations. In still others, minimum catch sizes or limits to the amount of catch are used. Below is a sample of actions taken to reduce bycatch in the nation's marine fisheries:

Amendment 18 to the Pacific Coast Groundfish Fishery Management Plan (FMP), published in November 2006, required vessels that participate in the open access groundfish fisheries to carry observers if directed by NOAA Fisheries Service. The revisions to the FMP also made bycatch minimization a high priority. Bycatch reduction measures included a total catch reporting and compliance program. A number of bycatch mitigation measures such as full catch retention programs and sector-specific and vessel-specific total catch limit programs, time/area closures, capacity control measures, and enforcement and safety standards were also developed.

A new groundfish retention program to reduce bycatch off Alaska was implemented in April 2006. The owners or operators of the affected vessels will be required to meet a calculated catch level standard on an annual basis. The North Pacific Fishery Management Council adopted this standard to decrease regulatory and economic discards and increase catch utilization.

Another action requires sea turtle conservation measures for sea scallop dredge vessels fishing south of a designated boundary at Long Island, N.Y. NOAA Fisheries Service determined that the use of a dredge modified with a chain mat would prevent most, if not all, captures of sea turtles and reduce injuries as a result of being caught in the dredge. This new requirement took effect September 25, 2006, and is effective May 1 through November 30 each year thereafter.

Fishery managers also implemented Amendment 18A to the FMP for Reef Fish of the Gulf of Mexico. Published in August 2006, the amendment requires reef fish vessel owners and operators to comply with sea turtle and smalltooth sawfish release protocols and possess on board specific gear to ensure proper release of such species. Both species are protected under the Endangered Species Act (ESA). This rule was implemented in response to a NOAA Fisheries Service-issued biological opinion under the ESA to minimize the impacts of the incidental take of sea turtles and smalltooth sawfish during fishing operations. The gear and techniques required by this rule are based on successful gear and fishing technique research conducted in the Atlantic Highly Migratory Species fishery.

Strengthening the Magnuson-Stevens Act

Throughout 2006, NOAA Fisheries Service undertook numerous activities to inform its constituencies within and outside the government and the general public of the Administration's priorities on Magnuson-Stevens Fishery Conservation and Management Act (MSA) reauthorization, including creating deadlines to end overfishing, encouraging market-based limited access privilege programs, improving recreational fishing data, streamlining National Environmental Policy Act implementation, and advancing ecosystem approaches to fisheries management. As a result, the provisions of the amended MSA were by and large consistent with Administration priorities, as articulated in our own MSA proposal of 2005 and the U.S. Ocean Action Plan of December 2004. In a statement following this very noteworthy accomplishment, President Bush thanked Congress for working in a bipartisan manner and "maintaining our thriving commercial and recreational fishing communities." The President added, "this bill embraces my priorities of ending overfishing and rebuilding our Nation's fish stocks through more effective, market-based management and tougher enforcement." On January 12, 2007, when President Bush signed H.R. 5946 into Public Law 109-479, he stated, "the Act sets a firm deadline to end overfishing in America; contributes to replenishing America's fish stocks; strengthens enforcement of America's fishing laws; and implements international agreements on fishery management." In light of the passage of this historic legislation, NOAA Fisheries Service met with the Chairs and Executive Directors of the eight regional fishery management councils in early January 2007 to review the Act's implementation requirements and schedule, and will be working diligently with them and all of our constituents to meet these new requirements in a transparent and public process.

Priority Given to Ending Overfishing

Several factors influence the status of stocks, including environmental variability, pollution, and harvesting. Ending and preventing overfishing is of fundamental importance because it is the one significant factor affecting the health of our nation's fisheries resources that NOAA Fisheries Service and the eight regional fishery management Councils have the power to control.

During 2006, the Councils proposed, and NOAA Fisheries Service implemented, many actions intended to end or prevent overfishing in federally managed fisheries. In other instances, the Councils and NOAA Fisheries Service made considerable progress in addressing these issues. Ending overfishing and rebuilding overfished stocks are the two key conservation and management mandates in the 1996 Sustainable Fisheries Act amendments to the MSA. Both Congress and the Administration have stressed the importance of ending overfishing, and the recently passed MSA in December 2006 requires that Councils take action to end overfishing within two years of an overfishing determination. The examples of these actions below show that this was indeed a national effort supported by the Councils and NOAA Fisheries Service even before passage of the 2006 Act.

- After years of strict management, a stock assessment update completed in September 2006 for Atlantic sea scallops concluded that overfishing had ended. Interim rules to reduce fishing mortality levels on Gulf of Maine and Georges Bank cod and yellowtail and winter flounder were implemented in May 2006. Permanent measures to reduce mortality took effect in November 2006.
- Harvest specifications intended to end overfishing on summer flounder were developed in 2006 and will take effect in 2007.
- Amendment 13C was implemented in October 2006 and is intended to end overfishing on black sea bass in 2009, and vermilion snapper and tilefish immediately.
- NOAA Fisheries Service and the Gulf Council worked throughout 2006 on measures to the Reef Fish FMP to end overfishing in the red snapper fishery, and the agency will implement actions early in 2007.

Deputy Secretary Calls On Regional Fishery Management Council Leaders to End Overfishing

On November 1, 2006, Deputy Secretary of Commerce David A. Sampson addressed the joint session of NOAA Fisheries Service and the Chairs, Executive Directors, and new members of the eight regional fishery management councils. Here are some excerpts from his speech:

During my time with the Commerce Department, I've come to appreciate the role that the members of the Regional Fishery Management Councils, the Executive Directors and staff, as well as Dr. Bill Hogarth and his staff, play in the difficult task of managing our Nation's living marine resources. It is not an easy role, but being true stewards of the resource should be our goal no matter how difficult.

...Overfishing is a legacy we cannot leave to future Council members, agency officials, or to the Nation...The important questions are: How will the public view your legacy 10 or 30 years from now? What do you want your legacy to be? Your resolve to make tough decisions now will determine that legacy.

As the President has stated on several occasions, this Administration strongly supports ending overfishing. In a proclamation earlier this year declaring June 4th through the 10th as "National Oceans Week," President Bush emphasized the importance of the oceans and reiterated the Administration's commitment to end overfishing. He again stressed this as a National priority in his establishment of the Northwestern Hawaiian Islands National Monument. Quoting President Bush, "Overfishing is harmful. It's harmful to our country, and it's harmful to the world." ...Never before has marine fisheries management received the attention placed on it by this Administration.

We are prepared to work with you every step of the way to accomplish this mutual goal. While we believe the Councils are best positioned to do this work, the Secretary of Commerce cannot wait if the Councils fail to act. If the Councils will not end overfishing, we will.

I appreciate your attention and answering the call of stewardship associated with being a Council member. The future of marine fisheries management is in your hands. You are the key to success.

NOAA Research Leads to Effective Measures to Reduce Sea Turtle Interactions with Fishing Gear

Each year, NOAA devotes millions of dollars in funding for gear technology research projects to reduce fisheries bycatch and protect endangered and threatened sea turtles, marine mammals, and seabirds from interactions with fishing gear. A central goal of these efforts is to identify solutions to bycatch and fisheries interaction challenges that can be adopted informally by the fishing industry or formally required through regulations. In June 2006, NOAA Fisheries Service published new regulations to protect sea turtles in the Chesapeake Bay directly based on successful gear technology research that NOAA funded in 2004 and 2005.

The 2006 regulations allowed fishermen once again to use pound net leaders, an important component of the pound net fishery, in a portion of the Chesapeake Bay. These pound net leaders were prohibited in 2004 due to sea turtle interactions with the leaders. Following the ban, the agency implemented a coordinated research program with pound net industry participants and other interested parties to develop and test a modified pound net leader design that would reduce or eliminate sea turtle interactions while retaining an acceptable level of fish catch. A 55-day NOAA Fisheries Service study conducted in 2005 found that a modified leader design had no interactions with sea turtles, while the unmodified leaders caught 15 turtles. Both leaders caught similar quantities of fish.

Historic First Meeting of Atlantic Billfish Tournament Directors Held

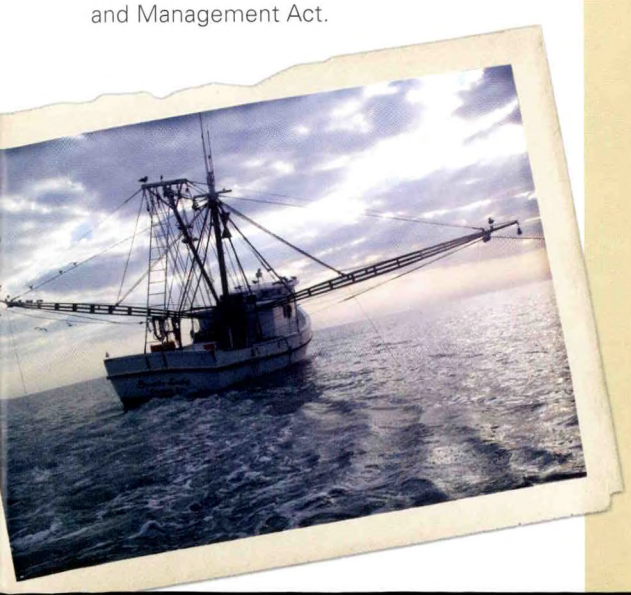
In a historic first-time meeting, Dr. Bill Hogarth invited leaders from the high-stakes, high-dollar business of Billfish Tournaments in the Atlantic to discuss changes and trends in U.S. sport fishing, billfish conservation, and management measures to improve the condition of blue and white marlin in the Atlantic. Approximately

250 U.S. Billfish Tournaments operate annually in the Atlantic, Gulf of Mexico, and Caribbean. Tournament prizes for the top fish in 2006 topped $1.5 million, with hundreds of boats participating in the larger venues. Of special interest at the November 2006 meeting was the use of circle hooks to reduce mortality of released fish and HMS-related research.

At the meeting, tournament directors informed NOAA Fisheries Service regarding the need to refine standards for circle hooks to meet conservation and regulatory requirements, and asked that staff meet with hook manufacturers to help create a universal definition for circle hooks to alleviate consumer confusion. agency leaders committed to meeting with hook manufacturers, and to keeping the tournament directors informed on progress toward the creation of hook standards or guidelines.

Limited Access Privilege Programs Move Forward

Since the beginning of Assistant Administrator Dr. Bill Hogarth's tenure, a central priority of NOAA Fisheries Service has been to operate the Nation's marine fisheries in a more business-like manner. The Administration supports a market-based approach to fisheries management, including the development and expansion of Limited Access Privilege Programs (LAPP). Congress strengthened market-based approaches to management in its reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act.



In 2006, NOAA Fisheries Service was managing eight LAPP fisheries and is on track to meet the Administration's goal of doubling the number of fisheries managed under LAPP to 16 fisheries 2010. Regulatory programs for two LAPPs were established during 2006, and fishing under the programs will begin in 2007. The Gulf of Mexico Red Snapper Individual Fishing Quota (IFQ) program will be implemented January 1, 2007, and the Central Gulf of Alaska Rockfish Pilot Program will be implemented in May 2007.

Assessing Excess Fishing Capacity

Excess fishing capacity is a key obstacle to meeting the objectives of sustainable fisheries. In March 2006, the agency completed the report, *Assessments of Excess Fishing Capacity in Select Federally-Managed Commercial Fisheries*. The report provides assessments of excess fishing capacity for select Federally managed fisheries and demonstrates methods for assessing excess fishing capacity that can be used in other fisheries. Overall, the assessments found evidence of significant excess capacity in the majority of the fisheries and fleets analyzed.

As one example of addressing this problem, NOAA Fisheries Service published the final rule for the Longline Catcher Processor Non-Pollock Groundfish Buyback on September 29, 2006. The program will provide a loan of up to $36 million in exchange for relinquishing non-interim federal License Limitation Program groundfish licenses endorsed for Bering Sea or Aleutian Islands catcher processor activity, as well as any present or future claims of eligibility for any fishing privilege based on such permit. This project had an extremely ambitious time frame, which included completing the rulemaking process in less than six months.

Advancing Ecosystem Approaches to Management

In 2006, NOAA scientists continued developing and implementing ecosystem-based models to assess living marine resources. These ecosystem assessments and forecasts are key to reaching NOAA's strategic goal of implementing an ecosystem approach to management. The first of these assessments focused on the Bering Sea, the Gulf of Alaska, and the Gulf of Maine-Georges Bank-Middle Atlantic Bight ecosystems. Future ecosystem assessments will include sub-regions within the California Current, Pacific Islands Complex, South Atlantic, Gulf of Mexico, Caribbean, and Antarctic Large Regional Marine Areas.

NOAA also led a collaborative effort to develop Fisheries Ecosystem Planning for the Chesapeake Bay. Published by the American Fisheries Society in fall 2006, it is a guide to ecosystem-based resource management—a conceptual framework that promotes incorporation of established ecosystem principles into fisheries management. Revisions to existing Bay-wide fisheries management plans are under way to begin the transition from traditional single species plans, to multispecies plans, and finally to true ecosystem-based fisheries management plans. NOAA also co-sponsored a major conference on Ecosystem Based Approaches to Management in the Southeast Region in March 2006. The emphasis of that conference was on marine fish, protected species, habitat, and pollution and flow in the marine environment.

Government Performance Results Act (GPRA)

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 2006, NOAA Fisheries Service had five GPRA performance measures. These performance measures addressed specific areas in management and science: number of overfished major fish stocks; number of major fish stocks with an unknown stock status; number of protected species stocks with adequate population assessments and forecasts; number of protected species designated as threatened, endangered, or depleted with stable or increasing population levels; and number of habitat acres restored.

NOAA Fisheries Service met or exceeded its goals for four of the five measures in 2006. While the goal was to reduce the number of unknown fish stocks by three stocks in 2006, NOAA Fisheries Service reduced the number by two. Our success in substantially meeting those goals demonstrated NOAA Fisheries Service's progress in its stewardship of living marine resources.

For 2007, the performance measures will be updated. The measure regarding the number of overfished major fish stocks will be replaced with a Fish Stock Sustainability Index. The measure of major fish stocks with an unknown stock status, and the measure of protected species with adequate assessments will be replaced by a Percentage of Living Marine Resources with adequate population assessments and forecasts measures.

The two new measures will improve the way that NOAA Fisheries Service assesses progress in managing fisheries, including increasing our understanding of the status of living marine resources populations. The Fish Stock Sustainability Index was designed to capture information on the majority of NOAA Fisheries Service's most significant managed species. It combines four components covering the key aspects of fisheries management into a 920-point index. By the end of 2006, NOAA Fisheries Service's score stood at 501, up from 481.5 at the end of 2005. The population assessment measure covers 230 fish stocks and 237 stocks of threatened, endangered, or depleted species, for a total of 467. By the end of 2006, more than a third of the 467 stocks had adequate assessments, up slightly from 2005 results.

Response to Hurricane Katrina

NOAA mounted a multi-pronged effort to address fishery-related impacts in the Gulf of Mexico in 2006. In August, NOAA awarded $128 million, the largest grant in its history, to the Gulf States Marine Fisheries Commission on behalf of the five Gulf states impacted by this natural disaster. Florida received $4.2 million, Alabama received $29.6 million, Mississippi received $37 million, Louisiana received $52.9 million, and Texas received $3.1 million. Slightly more than $1 million was used for ongoing monitoring and research of effects of the storms on the Gulf marine ecosystem. Another $20 million in funds went to rebuild the NOAA Fisheries Service Pascagoula, Miss., laboratory, which was substantially damaged by the storms. As part of its response activities, NOAA conducted fisheries monitoring in the Gulf, a series of research surveys and monitored the seafood coming from the Gulf to ensure it was safe from PCBs, pesticides, and fossil fuels. Marine debris removal efforts focused on protecting fishing grounds. NOAA also completed a survey of damage to the industry-related infrastructure in the Gulf States.

Highly Migratory Species Management Consolidated in 2006

NOAA Fisheries Service developed a new management plan that consolidates and streamlines activities for highly migratory species in the Atlantic Ocean. Species such as sharks and tuna, swordfish, and other billfish are called highly migratory species since they range across numerous state jurisdictions. New measures to improve the conservation and management of marlin, sharks, tuna, swordfish, turtles, and other species are included in the comprehensive plan. The consolidation improves management by speeding up the formal review processes, and allows for wider participation of partner organizations and industries, while enhancing an ecosystem approach to managing these species.

Managing all the highly migratory species in one plan allows fishery managers to better

identify biological and socio-economic impacts of regulations and fishing practices that span across all of the fisheries. The change expedites the management process and allows all sectors to participate when a management action is under consideration that could have cross-fishery impacts. A total of 35 actions were taken as part of the consolidation. They include requiring workshops to help commercial fishermen reduce the harmful bycatch mortality of sea turtles, sawfish, and marine mammals; mandatory workshops for commercial shark dealers to improve shark identification; requiring all participants in future Atlantic billfish tournaments that have targeted highly migratory species to use circle hooks; and simplifying the management process used to protect highly valued bluefin tuna.

Seafood Trade Deficit Continues to Increase in 2006

While the consumption of seafood products in the U.S. has increased each year, the growth in domestic supplies of wild capture and aquaculture seafood products is limited by resource availability and the management environment. Domestic seafood supplies have been supplemented by imports of a wide variety of species from 126 countries around the world in 2006.

As global demand for seafood increases and wild harvest supplies have plateaued, an increasing volume of seafood is coming from the expanding foreign aquaculture industry. The United Nations Food and Agriculture Office reports that, in 2006, 50 percent of global seafood production came from aquaculture. In some cases, imports have created competition with the same or similar traditional seafood choices provided by domestic wild capture fisheries. Salmon and shrimp are two generic seafood product categories where consumers have benefited from both declines in seafood prices and increased choice between domestic and imported products. Unfortunately, the falling prices have also directly affected domestic seafood harvesters and the communities dependent upon them. The globalization of the seafood industry is forcing the industry to become more efficient, deliver consistently high-quality product, and expand and diversify seafood markets.

Demand is also increasing on a per capita consumption basis as consumers become more knowledgeable about the health benefits of seafood consumption, relative price increases in other sources of protein, and increases in consumer disposable income. Per capita consumption of seafood has been on the increase in the U.S. over the last decade, rising an average of 1 percent per year since 1995. This increase in consumption has occurred as per capita personal income has risen 11 percent between 2000 and 2004, the last five years data for which is available, and, in spite of a U.S. dollar that has been declining in value relative to other currencies, which causes the price of imports to be higher relative to domestically produced goods.

This consumption trend has resulted in a seafood trade deficit that has grown by 11.6 percent per year between 1996 and 2005. Between November 2005 and November 2006, the deficit in absolute dollar terms had increased by $1.3 billion.

Given the growing recognition of the importance of seafood in the diet, growing world population, and increased per capita consumption, we can expect to have to compete with other nations for our share of seafood, unless the challenge to produce more seafood in the U.S. through aquaculture is met.

Seafood Safety Research and Monitoring

The Product Quality and Seafood Safety Research and Monitoring Program is the foundation of NOAA Fisheries Service's capabilities to both proactively and rapidly respond to seafood safety and aquatic animal health issues, from episodic events to environmental disasters. The value of this capability was evident in NOAA's rapid response to possible human health threats

in the aftermath of Hurricane Katrina. Without this component, NOAA's rapid response to Katrina would not have been as successful. The availability of trained and experienced staff is a critical prerequisite for a rapid, timely, and effective response to all seafood safety issues. This high level of

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response is essential to providing the public with the science-based assessments they need to be confident in the quality of their seafood and/or to understand any potential risks. The program, and the NOAA Fisheries Service Katrina response enabled by it, ensured public confidence in the $7 billion Gulf of Mexico fishery, demonstrating a sound return on NOAA's investment. Additionally, when needed, specific highly focused research and monitoring activities can be rapidly directed to address situations dealing with animal and human health concerns. For example, program scientists are reevaluating the human exposure rate from mercury in seafood and are investigating the potential mitigating effects of selenium on mercury toxicology.

NOAA Strengthens Aquaculture Program in 2006

In 2006, the NOAA Fisheries Service Aquaculture Program brought national attention to marine aquaculture as a vital tool important in the management of our Nation's fisheries. Spurred by the growth of aquaculture—including new data showing that nearly half of all fish consumed worldwide were produced by fish and shellfish farms—the NOAA Aquaculture Program made headway in policy development, research, and outreach.

The Aquaculture Program participated in Congressional hearings on the *National Offshore Aquaculture Act* and was a strong partner in the successful coordination of two collaborative national initiatives. A total of $3.6 million in research grants was awarded through the National Marine Aquaculture Initiative, and the National Aquatic Animal Health Plan was finalized. Since the 109th Congress did not complete work on the legislation in 2006, NOAA Fisheries Service will forward a new bill for consideration in 2007, building on the knowledge gained from the Congressional hearings and from constituent comments.

In addition to its collaboration on the National Marine Aquaculture Initiative with the NOAA Office of Research, in September, NOAA's Aquaculture Program hosted the Third International Symposium on Stock Enhancement and Sea Ranching. The symposium highlighted the technology and methods for stock enhancement and hatchery activities for marine and freshwater fisheries resources. NOAA Fisheries Service's broad experience with shellfish aquaculture research was highlighted at the 26th annual Milford Aquaculture Seminar, which was held in conjunction with the Northeast Aquaculture Conference in December 2006.

During 2006, NOAA's Aquaculture Program conducted more than 50 outreach activities aimed at a cross-section of constituents and funded or participated in numerous regional aquaculture initiatives, such as the development of the *Chesapeake Shellfish Aquaculture Plan*.

NOAA's Aquaculture Program staff published a variety of documents in 2006, including *Guidelines for Ecological Risk Assessment of Marine Fish Aquaculture*, and papers on shellfish immunology, probiotic bacteria for shellfish hatcheries, and harmful algal interactions with mollusks. The hallmark publication was a new *10-Year Plan for Aquaculture*, which received unanimous endorsement from NOAA Fishery Service's Marine Fisheries Advisory Committee. The plan is expected to be adopted by NOAA Fisheries Service in 2007.

Recreational Fishing

On the Road to Improved Recreational Fisheries Data

NOAA Fisheries Service tasked the National Research Council to complete a comprehensive review of the Marine Recreational Fisheries Statistics Survey—the agency's recreational data collection program. The 16-month, independent review was released in April 2006 and recommended changes to better address the needs and expectations of our management and science partners in the states and members of the angling community. The Magnuson-Stevens Act reauthorization in 2006 also called for improvements in recreational data collection and mandated the establishment of a registry for anglers. NOAA Fisheries Service has worked with our partners to redesign the program per the NRC study and the MSA. The process may take several years to fully complete, but will result in a recreational data program in which scientists, managers, and the public can all have confidence. The ultimate goal is to collect timely, accurate, and credible science and data from the surveys.

Strengthening Ties with the Sportfishing Community

America's 13 million recreational anglers represent one of NOAA's largest organized constituencies. This past year, recreational fisheries coordinators in California and Hawaii continued partnering with local anglers to form community action teams to implement NOAA's Recreational Fisheries Strategic Plan. As members of the local fishing communities, these coordinators have partnered with anglers, state agencies, and universities on projects such as cooperative fisheries research in California's Channel Islands and marine debris cleanups and circle hook education in Hawaii.

Anglers caught more than 22 million striped bass in 2005. Based on stock status concerns, and at the urging of anglers up and down the eastern seaboard, NOAA Fisheries Service decided in 2006 to keep federal waters closed to protect this popular species.

Sportfishing is a great way to foster marine conservation. NOAA Fisheries Service works closely with sportfishing organizations, industry, state, and other federal agencies across the country to sponsor kids' fishing programs that teach ethical fishing practices. Here, kids from the Los Angeles area get a chance to wet a line with NOAA Fisheries Service staff.

NOAA Fisheries Service encourages anglers to be responsible ocean stewards. With support from the NOAA Marine Debris Program, Office of Response and Restoration, and in cooperation with United Pier and Shore Anglers of California, the fishing line recycling program has been expanded to include California. The program will establish and maintain a series of receptacles for recycling used fishing line at California fishing piers and shore angling sites.


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Habitat Priorities

In 2006, NOAA Fisheries Service advanced four priority areas crucial to conserving fish habitat: protection, restoration, supporting ecosystem approaches to management, and enhancing stewardship. NOAA Fisheries Service protected marine and riverine fish habitat by designating Essential Fish Habitat and focusing on implementing new regulations nation-wide under the Energy Policy Act. Large-scale restoration projects along the Louisiana coast were a priority for the year, contributing to rebuilding activities following hurricanes Katrina and Rita. Efforts underway in 2006 in the Chesapeake Bay and in coral reef ecosystems to implement ecosystem approaches to management will provide excellent models for similar coordination efforts throughout the nation. Finally, NOAA Fisheries Service advanced the President's agenda to use cooperative approaches in both protection and restoration programs. By providing funding and technical assistance to our partners, we helped local communities minimize degradation and conduct restoration of important marine and coastal habitat.

Energy Policy Act Implementation Accomplishments

Salmon, shad, striped bass, and other diadromous fish that inhabit marine and freshwater environments in their lifetimes are valuable to the health of our ecosystems and economy. Under the federal Power Act, NOAA Fisheries Service has strong authority to ensure the safe, timely, and effective passage of these fish at non-federal hydropower dams regulated by the federal Energy Regulatory Commission. In November 2005, NOAA Fisheries Service, and the departments of the Interior and Agriculture jointly established new regulations to improve licensing procedures for hydroelectric dams. The new process meets Energy Policy Act of 2005 requirements while maintaining NOAA Fisheries Service's authority to protect economically and ecologically valuable migratory fish and their habitats.

NOAA Fisheries Service worked with its Regional Offices, legal advisors, and the Department of Interior to successfully implement the new requirements during the relicensing process of two hydroelectric dams, the Klamath Hydroelectric Project in northern California and the Santee Cooper Hydroelectric Project in South Carolina. NOAA achieved a significant victory and set an excellent precedent on the Klamath Project during the first hearing implemented under the new Energy Policy Act. NOAA Fisheries Service staff developed strong arguments for protecting the passage of fish around the Santee Cooper Dam, which ultimately led to settlement among the parties. In these hearings, the agency's efforts to protect the passage of diadromous fish through their riverine habitats will result in long-term benefits to their populations and habitats and the local economies that rely on healthy, intact ecosystems.

Eradicating "Killer Algae" from Southern California Lagoons

In 2006, NOAA Fisheries Service marked a major success in controlling invasive species. The agency and its partners in southern California announced that the invasive algae, *Caulerpa taxifolia*, was completely eradicated from California's Agua Hedionda Lagoon in Carlsbad and from Huntington Harbour in Orange County. The highly invasive strain of the marine algae was first discovered in California in 2000 and was the first known occurrence in the Western Hemisphere. NOAA Fisheries Service considered the "killer algae" a major threat to coastal and marine ecosystems because of its effects on Mediterranean ecosystems, where the algae has caused ecological and economic devastation. There, *Caulerpa* has overgrown native seaweeds and reefs, harmed tourism and recreational diving, and affected commercial fishing by physically impeding net fisheries. In California, the cooperative effort and the rapid response contributed to the successful eradication. The response model used is viewed as an effective model for the eradication of other invasive species.

Volunteers sort through invasive marine algae collected from reefs off of Waikiki Beach in Hawaii. Native algae species that were inadvertently collected will be returned to the water and the alien algae will be used as fertilizer by local taro farmers.

In 2006, NOAA Fisheries Service celebrated the success of a landmark effort to restore ocean flow to the wetlands at Bolsa Chica in Orange County, California.

Restoring Tidal Flow to the Bolsa Chica Wetlands

In 2006, NOAA Fisheries Service celebrated the success of a landmark effort to restore ocean flow to the wetlands at Bolsa Chica in Orange County, California. The restoration project, the result of state and federal partnerships, restored over 1,200 acres and opened a tidal inlet that blocked tidal flow from the Pacific Ocean for more than 100 years. The agency's Southwest Regional Office staff, along with numerous federal, state, local, and non-governmental partners, completed the project in two years. NOAA Fisheries Service served a pivotal role on the Steering Committee that directed the restoration effort. The newly restored wetlands provide new marine habitat for coastal and estuarine fisheries, increased habitat for migratory birds, and recreational opportunities for local residents. The restored wetlands also serve as important habitat for several threatened and endangered species. With 95 percent of California's coastal wetlands lost to development, the project is a valuable asset for protecting and enhancing coastal and marine resources.

Mapping Corals in the Western Pacific

During the spring of 2006, NOAA Fisheries Service's Pacific Islands Fisheries Science Center led the third research cruise to map coral habitats in the Territory of American Samoa and the U.S. Pacific Remote Island Areas. During the cruise, scientists identified huge, boulder coral colonies that are estimated to be approximately 500 years old. These corals are among the largest and oldest shallow-water coral colonies in the world. Scientists also completed surveys using high-resolution, multi-beam acoustic mapping of habitats at depths ranging from 20 to 1,000 meters. The surveys were used to produce maps of 4,900 square kilometers of benthic habitat around the islands. The American Samoa government, NOAA Fisheries Service, the U.S. Fish and Wildlife Service, and the National Park Service are using these maps to make decisions about the long-term management

and conservation of the region related to fishery management, habitat conservation, and coastal development. For example, the American Samoa government and federal agencies are using these maps to guide the proposed project to extend the Ofu Island airport runway.

Removing Marine Debris from Our Coastal Environment

Marine debris damages fish habitat, injures and kills marine animals, and compromises navigation safety. NOAA Fisheries Service, in partnership with the NOAA Marine Debris and Coral Reef Conservation Programs, federal and state agencies, and local organizations, works to mitigate harm caused by marine debris. In 2006, NOAA Fisheries Service led several activities throughout the U.S. to assess the impacts of derelict fishing gear on marine ecosystems, reduce damage to important habitats, and promote stewardship and removal of marine debris.

In the Hawaiian Islands, the agency and its partners used aerial surveys to locate lost or abandoned fishing gear and conduct targeted removal efforts. The initial effort resulted in the removal of 15 tons of debris from Oahu's beaches. NOAA Fisheries Service also facilitated the development of a program that allows fishermen to collect "derelict" gear while at sea and drop it off at a designated facility once back in port. So far, fishermen have collected 6.2 tons of derelict gear. In the northwestern Hawaiian Islands, the multi-agency partnership removed 14 tons of derelict fishing gear during a one-month effort, three tons from Midway Atoll, and an additional two tons from a land-based clean-up. Local companies break down the collected derelict fishing gear and incinerate it to produce power for the homes and businesses on Oahu.

In southeast Florida, NOAA Fisheries Service and partners mapped sections of coral reefs harmed by tires that were used to create fish habitat in the 1970s. The agency helped develop a multi-agency plan for tire removal and disposal that includes the relocation of corals that have colonized the tires. The plan prompted the Florida Department of Environmental Protection to develop a budget initiative to remove one million tires from the seafloor.

In the Chesapeake Bay, NOAA Fisheries Service and partners conducted sonar surveys to locate lost or abandoned crab pots. These "ghost traps" account for a significant amount of blue crab mortality each year, and understanding the density of derelict crab pots will help scientists estimate that loss. Derelict trap densities around Annapolis, Md., ranged from 120 to 690 traps per square kilometer, while densities in the York River ranged from 30 to 120 traps per square kilometer. Additional surveys are underway for other areas of the Bay.

Advancing Cooperative Conservation

In 2006, NOAA Fisheries Service celebrated 10 years of coastal restoration under the NOAA Fisheries Service-managed Community-based Restoration Program. The program, begun in 1996 with a few small projects, now funds over 200 large- and small-scale projects per year, even tackling complex dam removals and coral reef repairs. The cornerstone of this highly successful program is involving citizens and partners in local and regional restoration projects, which restored over

Scientists (NOAA-paid consultants) plant bags of oyster shells on pallets in waters around San Francisco Bay to create new oyster habitat. Pallets are used to keep the shells off the ground to prevent predation.

In April, Commerce Secretary Gutierrez joined federal and state partners on the banks of the Potomac River to publicly launch the National Fish Habitat Action Plan.

6,000 acres of habitat and opened 70 miles of streams for migratory fish in 2006. Over its 10-year history, the program has involved nearly 120,000 volunteers in on-the-ground restoration projects that enhance our coastal and marine habitat. The NOAA Fisheries Service Habitat Conservation Program is expanding this cooperative model into other arenas. Cooperative Habitat Protection Partnerships, a new strategy modeled after Community-based Restoration, will complement traditional regulatory activities to protect fish habitat by providing tools to help communities make educated decisions to minimize habitat degradation.

These efforts and others contribute to advancing the President's Executive Order 13352, Facilitation of Cooperative Conservation. NOAA Fisheries Service continues to implement the Executive Order by working to integrate cooperative conservation practices into the agency's management approach. In addition, NOAA Fisheries Service leadership and staff participate in interagency work groups that are meant to address actions identified at the August 2005 White House Conference on Cooperative Conservation in St. Louis, Mo. Topics addressed by the workgroups include: conservation competencies, measuring and monitoring, and training and development.

Launching the National Fish Habitat Action Plan

In April, Commerce Secretary Gutierrez joined federal and state partners on the banks of the Potomac River to publicly launch the National Fish Habitat Action Plan. The Action Plan provides a blueprint to build effective local and regional partnerships that bring together resources to support healthy fisheries and waterways. Dr. Bill Hogarth, Assistant Administrator for Fisheries, was selected as one of 20 individuals to serve on the National Board to guide this new initiative. The Board, representing outdoor industries, federal and state natural resource agencies, Native American tribes, and conservation and recreation organizations, is charged with leading the implementation of this broad partnership-based effort to protect, restore, and enhance America's most imperiled aquatic habitat.

Rebuilding Louisiana Coastal Habitat

In 2006, NOAA Fisheries Service built two large-scale shoreline protection projects that together will restore over 2,100 acres of coastal habitat along the Louisiana Gulf Coast. Wetland planting on the Chaland Island project will continue into 2007, but major earth moving is complete. At $60 million, this two-phase project is the largest project funded under the Coastal Wetlands Protection, Planning, and Restoration Act (CWPPRA) to date. It reconnects three fragmented islands battered by storms into one contiguous piece of land. The nearly complete Little Lake project protects five miles of eroding shoreline in one of the most deteriorated areas of Louisiana's coast. At 1,000 acres, it is the largest marsh re-establishment project in the state. The coastal habitat created by these projects serves as a first line of defense against storms, protecting coastal communities and infrastructure from the devastating effects of wind, waves, and flooding.

Two additional NOAA Fisheries Service projects were approved for engineering and design in 2006: a barrier island project to help protect a critical petrochemical port facility, and a marsh re-establishment project that will strengthen a hurricane protection levee against storm waves. If approved for construction, these projects are estimated to cost $65 million and restore 1,100 acres. Almost one-third of all completed CWPPRA projects have been built by NOAA Fisheries Service, with construction of 22 projects totaling $150 million. These restoration projects have benefited 130,000 acres of coastal wetlands and demonstrate NOAA Fisheries Service's leadership in implementing large-scale habitat restoration projects that benefit marine fisheries and protect shorelines in Louisiana.

Conserving Coasts with Living Shorelines

Shorelines are often stabilized with hard structures, such as bulkheads and seawalls, to abate erosion in coastal environments. But these structures often increase the overall rate of coastal erosion, inhibit natural processes, and diminish habitat for estuarine species. NOAA Fisheries Service promotes alternatives to shoreline hardening and supports research and development of the "living shoreline" approach. Living shorelines use more natural methods, such as building marshes or wetlands to slow erosion. Research is underway in North Carolina to examine how different shoreline stabilization methods affect fishery habitat. Results of the research will also help property owners better understand the relative effectiveness of each method for erosion abatement. Since 2000, NOAA Fisheries Service has funded living shoreline projects implemented through partners such as Restore America's Estuaries and the National Fish and Wildlife Foundation.

In 2006, NOAA Fisheries Service funded projects that removed bulkheads and replaced them with native vegetation in Washington; created a protective marsh fringe along an eroding shoreline in Louisiana; and removed riprap and replaced it with a protective breakwater and marsh plantings in Virginia.

Adopting Fisheries Ecosystem Planning for the Chesapeake Bay

NOAA Fisheries Service is advancing implementation of ecosystem-based fisheries management in the Chesapeake Bay. On November 29, 2005, the Chesapeake Executive Council of the Chesapeake Bay Program adopted an ecosystem approach to management. The Council identified *Fisheries Ecosystem Planning for Chesapeake Bay* as the guiding document for resource managers on how to implement such an approach in the Chesapeake. The NOAA Chesapeake Bay Office is at the forefront of the transition from traditional single-species management to ecosystem-based fisheries management, and is providing leadership and logistical and scientific support for these efforts. Currently, managers are focusing on ecosystem-based fisheries management planning for striped bass, blue crab, oyster, Atlantic menhaden, and American shad.

Protecting Essential Fish Habitat

NOAA Fisheries Service, in partnership with regional fishery management Councils, and with the support and advice from environmental and fishing industry groups, made significant progress toward the protection of essential fish habitat necessary for the conservation of fisheries in the Pacific Ocean. In July 2006, NOAA Fisheries Service and the North Pacific Fishery Management Council established five new conservation areas covering 300,000 square nautical miles to protect fish habitat from destructive fishing practices, particularly bottom trawling. These areas conserve a diverse range of habitats that support deep sea corals, fishes, and marine mammals. One of these areas, the Aleutian Islands Habitat Conservation Area, spans approximately 284,000 square nautical miles—an area larger than the states of Texas and Colorado combined. Also in 2006, NOAA Fisheries Service and the Pacific Fishery Management Council established habitat conservation areas off the coasts of Washington, Oregon, and California covering more than 150,000 square miles of marine waters. Fishing methods that can cause long-term damage to sensitive ocean floor habitats were prohibited within most of these areas. The geographic scope of these conservation measures is nothing short of historic. Combined, these areas are more than three times the size of all U.S. National Parks.

One of the issues that stands out among NOAA Fisheries Service's protected resources priorities in 2006 is the effort to conserve and protect the highly endangered North Atlantic right whales.

Priorities for 2006

One of the issues that stands out among NOAA Fisheries Service's protected resources priorities in 2006 is the effort to conserve and protect the highly endangered North Atlantic right whales. NOAA Fisheries Service negotiated with federal agencies and the shipping industry to reduce the risk of collisions between North Atlantic right whales and ships through speed restrictions in three major regions along the U.S. East Coast, and those regulations are under development. Another important effort was a U.S. proposal, developed across NOAA Fisheries Service and with the U.S. Coast Guard, to change the shipping lanes coming into Boston Harbor to reduce the risk of ship strikes to right whales by 58 percent. The Maritime Safety Committee of the International Maritime Organization adopted the proposal in December and the regulations will become effective on July 1, 2007. Other top priorities included: collaboration with Mexico to recover Kemp's Ridley sea turtles; listing staghorn and elkhorn corals and the southern distinct population segment of North American green sturgeon as threatened under the Endangered Species Act; and working with the U.S. Navy and the U.S. Air Force to protect marine species from harm during military training exercises.

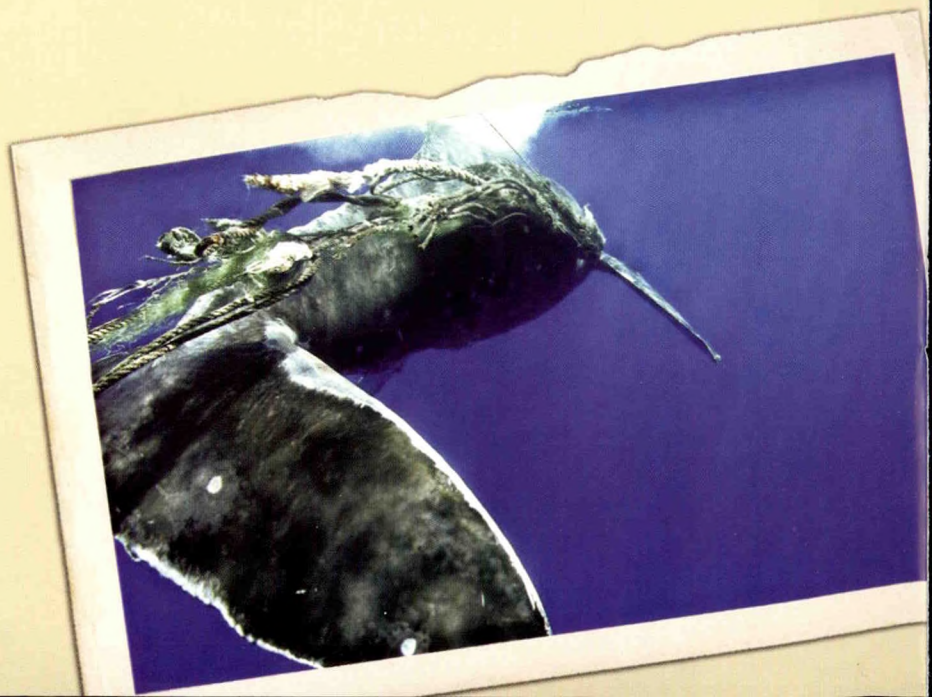
NOAA's Large Whale Disentanglement Partnership Program

Over the last year, NOAA Fisheries Service worked to expand the large whale disentanglement program. An example of the success of this program occurred in February 2006 when federal and state officials, along with local volunteers, teamed up to free a humpback whale from a life-threatening entanglement.

Members of the NOAA Fisheries Service and Hawaiian Islands Humpback Whale National Marine Sanctuary and Hawaii Department of Land and Natural Resources, along with the community-based Whale Disentanglement Network, unraveled the 25-foot lines from the whale's mouth to free the humpback whale. A buoy, which was attached to the animal, allowed rescuers to track the whale until it was safe enough to attempt a rescue effort.

The Hawaiian Islands Disentanglement Network has experienced and trained personnel who are authorized to safely cut large whales free of gear and marine debris using specially designed tools and techniques. The network in Hawaii is a partnership of federal, state, and local members that also includes staff from NOAA Fisheries Service's Pacific Islands Regional Office and the Marine Mammal Health and Stranding Response Program. The disentanglement network operates in other parts of the U.S. and its regional teams have successfully freed more than 50 large whales over the years along the East Coast of the U.S. and Canada, the Caribbean, Alaska, and Hawaii.

Lana'I, Hawaii. A humpback whale entangled in 3/4-inch fishing line. The gear, snarled in the whale's mouth, included two large red buoys. A smaller bullet buoy extended more than 25 feet behind the mammal. The buoys allowed rescuers to track the whale until it was safe to attempt a rescue.



Endangered Species Act Recovery Listing and Planning

NOAA Fisheries Service continues to assess the status of marine species in U.S. waters for listing and recovery planning under the Endangered Species Act (ESA). Both staghorn and elkhorn corals have been classified as "threatened" under the ESA due to rapid declines throughout their ranges in the Bahamas, Florida, and the Caribbean. The listing will help reduce the threats to these species. Some threats include physical damage from human activities and hurricanes, disease, and temperature-induced coral bleaching.

Also receiving a "threatened" classification was the southern distinct population segment of North American green sturgeon, south of the Eel River in California. The population of green sturgeon north of, and including, the Eel River did not warrant listing under the ESA. Green sturgeon is an anadromous species requiring habitat features similar to those of salmon for survival and reproduction. Dams built in the upper Sacramento and Feather rivers likely blocked migration of green sturgeon, leading to a significant reduction of the southern population's habitat.

In addition to listing threatened and endangered species, the ESA directs NOAA Fisheries Service to publish and implement recovery plans to promote conservation of these species. Recovery plans require managers to develop and implement site-specific management actions necessary to achieve recovery of the species, along with objective, measurable criteria, which, when met, would lead to removal of that the species from the list. Also in the plans are estimates of the time and costs required to achieve the plan's goal. With assistance from public and private entities, NOAA Fisheries Service has recently published draft recovery plans for the fin whale, sperm whale, Steller sea lion (revision), smalltooth sawfish, Upper Columbia Spring Chinook salmon, and steelhead trout. After addressing the public comments, NOAA Fisheries Service will publish the final recovery plans for these species.

Ocean Noise—Military Readiness and Energy Security

Working closely with the U.S. Navy and the U.S. Air Force, NOAA Fisheries Service in 2006 issued several authorizations under the Marine Mammal Protection Act (MMPA) and the Endangered Species Act (ESA) designed to protect marine species from harm during military training exercises. The military conducts these important readiness activities, which include anti-submarine warfare, air-to-surface gunnery, and explosive ordnance disposal. The Rim of the Pacific training exercises, conducted near Hawaii in July 2006, were the first mid-frequency sonar activities to be authorized under the MMPA.

NOAA Fisheries Service continues to coordinate closely with the Navy to streamline MMPA, National Environmental Policy Act (NEPA), and ESA procedures between agencies. Anticipating the growing interest in Alaska's oil and gas resources, NOAA Fisheries Service worked closely with the Minerals Management Service (MMS) this year to help develop a Programmatic Environmental Assessment (PEA) addressing oil and gas development activities off the North Slope of Alaska. Working with the industry and native Alaskan subsistence hunters under the guidance of the PEA, NOAA Fisheries Service authorized several seismic surveys of potential oil and gas resources in the Beaufort and Chukchi seas in 2006. NOAA Fisheries Service continues to work with MMS and the oil and gas industry in the Gulf of Mexico to ensure NEPA, ESA, and MMPA compliance for oil and gas leases, seismic surveys, and structure removals.

Protecting Right Whales

The main sources of North Atlantic right whale mortality are ship strikes and fishing gear entanglement. On June 23, 2006, NOAA Fisheries Service published a proposed rule to reduce the risk of collisions between North Atlantic right whales and ocean-going vessels. The rule, negotiated with federal agencies and the shipping industry, proposes a speed restriction of 10 knots or less in three major regions along the U.S. East Coast, based on seasonal occurrence of whales in each area, as well as commercial ship traffic patterns and navigational concerns. The right whale population numbers about 300 individuals, making it one of the most critically endangered species in the world.

Existing conservation measures have not been sufficient to reduce right whale deaths and serious injuries associated with ship strikes. NOAA Fisheries Service also has proposed an ambitious plan to address all sources of gear entanglement.

Pacific Coastal Salmon Recovery

NOAA Fisheries Service directly contributes to salmon recovery actions through the Pacific Coastal Salmon Recovery Fund (PCSRF). This program actively funds and supports projects and activities aimed at protecting and restoring habitat critical to salmon productivity and viability, removing barriers to salmon migration, and ensuring healthy populations are maintained. The overarching goal of the multitude of projects and activities enacted through the PCSRF is to prevent extinction and improve the status of Endangered Species Act—listed species and ensure the overall sustainability of salmon.

The PCSRF and its state and tribal partners are making significant contributions to the overall recovery of Pacific salmon. PCSRF has been continually working to protect and improve declining salmon populations and deteriorated salmon habitat in streams and watersheds throughout the Pacific Coast region. The program has protected, restored, or enhanced more than 500,000 acres of instream, estuarine, riparian, and upland habitat. More than 5,000 miles of habitat has also been made accessible to salmon. Salmon populations continue to show signs of improvement, with 15 of 19 populations at stable or increasing levels.

Both human and natural factors have contributed to the decline of Pacific salmon over the past century. Activities such as urban development, logging, grazing, hydropower, and agriculture have altered important spawning and rearing habitat. Past harvest and hatchery practices have also affected salmon abundance and left populations more susceptible to fluctuations in the natural environment, such as changing ocean conditions, predators, droughts, fires, and floods. Many of these activities and conditions continue to be a challenge, even as programs such as the PCSRF seek to restore endangered and threatened salmon and prevent other salmon populations from the threat of extinction. Continued commitment and collaboration are required to achieve the overarching goal of full recovery and sustainability of Pacific salmon and steelhead.

NOAA Fisheries Service's Endangered Species Act salmon-recovery-planning efforts are coming to fruition after several years of intense work and collaboration. Local entities or states developed most of the plans, with NOAA Fisheries Service guidance to ensure that they meet ESA requirements. Three plans are final, with others to be completed during 2007. Areas with completed plans are proceeding with recovery implementation. There is strong local and regional buy-in, with solid scientific underpinnings and linkage of recovery actions to factors limiting salmon survival. Recovery plans serve as road maps to guide decision-making and resource allocation by federal agencies, states, tribes, local jurisdictions, and other stakeholders.

Bi-National Recovery of Kemp's Ridley Sea Turtles

The number of Kemps Ridley sea turtles has grown from a low of 702 in 1985 to more than 12,000 in 2006, a result of the U.S.-Mexico Bi-National Program for the Conservation of Kemp's Ridley Sea Turtles. Researchers from the Southeast Fisheries Science Center are actively participating in the successful conservation program.

The Kemps Ridley sea turtle was listed as endangered throughout its range under the Endangered Species Act in 1973 as the species underwent a dramatic decline in the latter half of the 20th century. Photographic evidence collected in the 1940s indicated that the population was at least as large as 40,000 nesting females. By the mid-1980s the population had plummeted, and only 700 nests were documented in 1985. Since the late 1970s, the U.S. and Mexico have worked together in the bi-national program to conserve and recover the species.

Today, under the strict protections afforded by the Mexican government and the U.S., and through partnership efforts with state, industry, and non-governmental agencies and organizations, the population appears to be in the earliest stages of recovery. 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) to reduce bycatch in shrimp trawls in both the U.S. and Mexico. Without the protections afforded the species under the ESA, the species would likely have become extinct in the early part of this century.

NOAA Scientists Edit Groundbreaking New Book on Whales

NOAA Fisheries Service scientists from the Alaska Fisheries Science Center and the Southwest Fisheries Science Center teamed up with scientists from the University of California, Santa Cruz, to edit a new book: *Whales, Whaling, and Ocean Ecosystems*. The volume presents a broad picture of what is known about the natural history, biology, and ecology of whales in the broader context of the dynamics of the world's major ecosystems.

The chapters in the volume were based on presentations made during a workshop held in Santa Cruz on the importance of large whales to marine ecosystems. One of the primary objectives of the volume was to investigate the potential for trophic cascades in the marine ecosystem following the sequential depletion of many populations of large whales in the world's oceans. While there was no consensus as to the timing, magnitude, or importance of trophic cascades at the workshop or in the volume, the 30+ chapters in the book represent an up-to-date summary of the ecological role of large whales. The volume was published by the University of California Press.

The number of Kemps Ridley sea turtles has grown from a low of 702 in 1985 to more than 12,000 in 2006, a result of the U.S.-Mexico Bi-National Program for the Conservation of Kemp's Ridley sea turtles.

Marine Mammal Stranding Grants Awarded for Fifth Year

In 2006, NOAA Fisheries Service marked the fifth year it has awarded John H. Prescott Marine Mammal Rescue Assistance Grants to improve the volunteer marine mammal stranding networks on both U.S. coastlines. Members of the networks are the first responders to marine mammal stranding events occurring on the nation's coasts. The first five years of the Prescott Grant Program have made unprecedented improvements in basic infrastructure and the continued success of the Marine Mammal Health and Stranding Program. Since the inception of the Prescott Grant Program in 2002, over $20 million in funding has been disbursed through 229 grants to eligible members of the Marine Mammal Network. Almost $800,000 has been awarded to date in Emergency Stranding Grants to reimburse network members for their emergency response activities.

In 2006, NOAA Fisheries Service marked the fifth year it has awarded John H. Prescott Marine Mammal Rescue Assistance Grants to improve the volunteer marine mammal stranding networks on both U.S. coastlines.

The effects of the Prescott grant program have been far-reaching throughout the U.S. Prescott grant funds have been used to recover and treat (i.e., rehabilitate) stranded marine mammals, to collect data from living or dead stranded marine mammals, and for facility upgrades, operation costs, and staffing needs.

Rehabilitated Twin Monk Seals Returned to Their Home at Midway Atoll

After a five-month stay in the safe confines of a NOAA Fisheries Service's care center in Honolulu in 2006, a pair of young Hawaiian monk seals has been returned to their birthplace at Midway Atoll, fatter and more able to cope with life in the wild. The twins will remain under observation and care as they learn to feed on live fish in their nearshore ocean pen before joining the rest of the wild Midway monk seal population.

The twin seals were removed from their natal beach at Midway in late May 2006 shortly after weaning, when biologists noticed that the pups were severely underweight and malnourished. They were flown to Honolulu on a U.S. Coast Guard C-130 Hercules transport plane and placed in the Kewalo Basin Research Facility of the NOAA Pacific Islands Fisheries Science Center (PIFSC), where they were protected and nursed back to health.

The young seals are only the fourth pair of monk seal twins recorded and the first known to survive past weaning. During their quarantine at the Kewalo Research Facility, they responded readily to the care provided by PIFSC staff—three square meals of high-quality herring daily—and grew from only 65 pounds and 79 pounds when rescued to a robust 112 and 130 pounds, respectively.

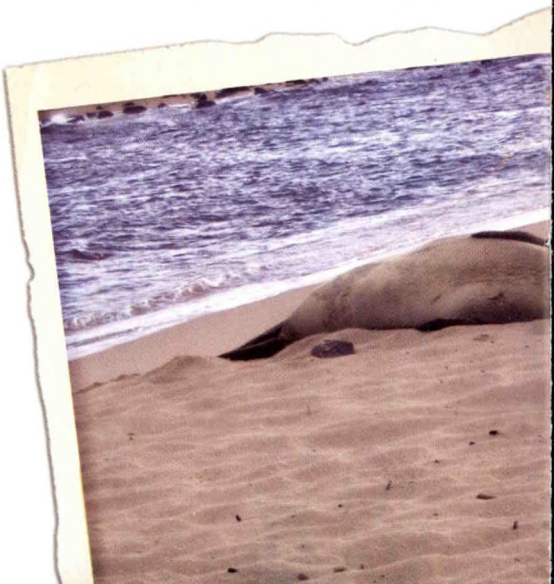
The captive care program is one of the means NOAA Fisheries Service and partner agencies use to aid the recovery of the critically endangered Hawaiian monk seal population. Monk seal abundance is at a record low, and their numbers are expected to fall below 1,000 within the next five years if nothing is done to enhance their survival. A key part of the current recovery strategy is to identify undernourished pups, restore their fitness through captive care, and thereby increase their chances of surviving to maturity.

Sea Turtle Rescue Leads to Scientific Research

In September 2006, a juvenile green sea turtle live-stranded in Alamitos Bay, in Long Beach, Calif. The turtle was brought to the Aquarium of the Pacific for rehabilitation. The turtle was found to be in good health, and the Aquarium, in consultation with the Southwest Regional Office (SWRO), felt that the animal would be a good candidate for researching migratory and foraging behavior through attachment of a satellite transmitter.

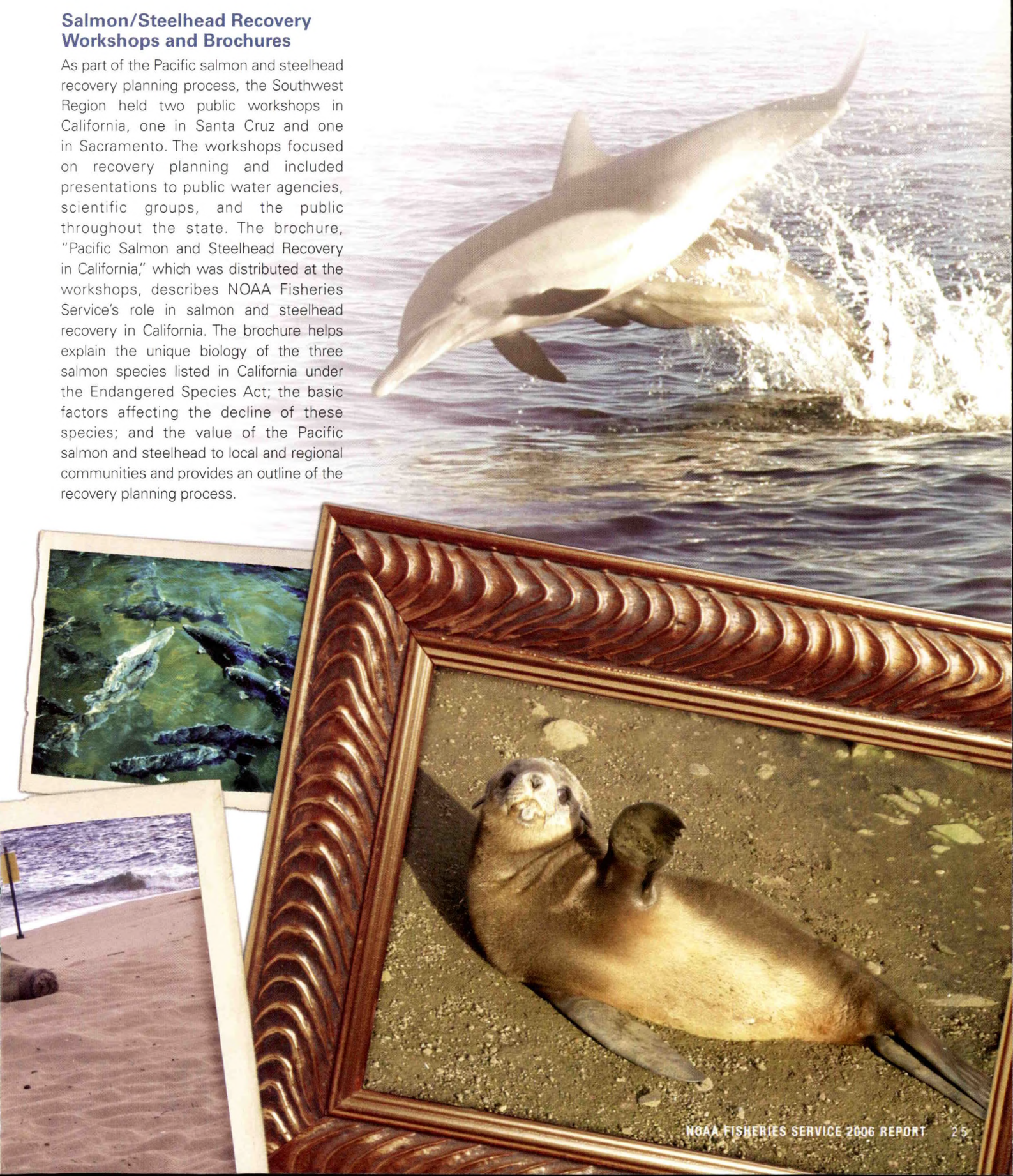
A few resident green sea turtles have been tracked via satellite from south San Diego Bay, but this was the first time that a turtle had been tracked from this area, and NOAA Fisheries Service and the Aquarium were very interested in learning about the importance of Alamitos Bay and Southern California to this endangered species. With assistance from the SWRO and scientists at the Southwest Fisheries Science Center, the Aquarium attached the satellite transmitter to the carapace of the turtle, and on September 28, 2006, the turtle was released.

The event generated a lot of media coverage, with four television stations covering the story, and representatives from both the SWRO and the Aquarium giving interviews. Since its release, the turtle has been tracked traveling as far south as the San Onofre Nuclear Generating Station (approximately 50 miles one-way). The Aquarium hopes to track this animal for the next six months.



Salmon/Steelhead Recovery Workshops and Brochures

As part of the Pacific salmon and steelhead recovery planning process, the Southwest Region held two public workshops in California, one in Santa Cruz and one in Sacramento. The workshops focused on recovery planning and included presentations to public water agencies, scientific groups, and the public throughout the state. The brochure, "Pacific Salmon and Steelhead Recovery in California," which was distributed at the workshops, describes NOAA Fisheries Service's role in salmon and steelhead recovery in California. The brochure helps explain the unique biology of the three salmon species listed in California under the Endangered Species Act; the basic factors affecting the decline of these species; and the value of the Pacific salmon and steelhead to local and regional communities and provides an outline of the recovery planning process.



Collection and analysis of time-series data used to evaluate the status of living marine resources continues as the foundation of NOAA Fisheries Service science programs.

Priorities for 2006

Collection and analysis of time-series data used to evaluate the status of living marine resources continues as the foundation of NOAA Fisheries Service science programs. Additional priorities this year included collaborating on the science provisions of the Magnuson-Stevens Fishery Conservation and Management Act, embarking on a redesign of data collection systems for recreational fisheries, and collaborating on the Ocean Research Priorities Plan, a product of the National Science and Technology Council's Joint Subcommittee on Ocean Science and Technology.

First-Ever Cruises Along Bering Sea Ice Edge Launch New Climate-Variation Time Series

Scientists at NOAA Fisheries Service's Alaska Fisheries Science Center and Pacific Marine Environmental Laboratory led a multidisciplinary ice edge cruise to the eastern Bering Sea to begin new studies of how climate variability is affecting this productive marine ecosystem. A collaboration of 25 scientists from five different agencies, three universities, and five countries, two Native Alaskans, a Russian photographer, a photographer and reporter from the *Seattle Times*, and a filmmaker made the voyage aboard the NOAA ship *Miller Freeman* and the University of Washington's *Thomas G. Thompson*.

Scientists measured physical, chemical, and biological properties in the ice, at the ice edge, and in the open waters to understand how the loss of sea ice due to climate variation might affect our commercial and protected resources. Marine mammal scientists tagged ribbon seals with satellite transmitters to obtain some of the first movement measurements made on ice-dependent seals in the eastern Bering Sea. Fisheries assessment scientists used hydro-acoustics to search for concentrations of fish at the ice edge. Expedition results will provide a benchmark for ecosystem status, help refine understanding of ice-edge processes, and suggest further investigations.

NOAA Fisheries Service Helps Maintain Public Confidence in Seafood

NOAA Fisheries Service continued its year-long surveys of water and seafood for the presence of bacteria, viruses, and chemical contaminants in the northern Gulf of Mexico following the devastation caused by hurricanes Katrina and Rita in 2005. The assessments were instrumental in maintaining public confidence in the safety of seafood from the Gulf of Mexico.

Results from the surveys showed that there were no bacterial viruses, or contaminants present at levels that posed a threat to humans. To inform the public, six reports from cruises and analyses were posted on NOAA Fisheries Service's website, distributed i;n press releases, and presented in scientific meetings and workshops. Although some tests detected a range of compounds and micro-organisms, none was present at levels that posed a threat to human health, and most showed no increases that could be construed as resulting from the effects of the hurricanes. NOAA Fisheries Service scientists did detect a slight increase in levels of oil-derived compounds (specifically polycyclic aromatic hydrocarbons) in shrimp from Lake Borgne and Mississippi Sound, presumably from releases of petroleum products caused by hurricane damage, but these increases had disappeared by the spring of 2006. These surveys demonstrate NOAA Fisheries Service's capability to detect even slight changes to the ecosystem.

One-hundredth Peer Review Conducted by the Center for Independent Experts

The Center for Independent Experts (CIE) completed its 100th peer-review project in September 2006. The CIE is part of NOAA Fisheries Service's continuous effort to improve the quality of the agency's science. Working with the University of Miami, the Office of Science and Technology established the CIE as a national peer-review program in 1998. The purpose remains the same: to obtain independent and timely reviews of the science products upon which many of the management decisions made by NOAA Fisheries Service are based.

The structure and operations of the CIE have been carefully designed to ensure the quality, relevance, and independence of the reviews. Many CIE reviews address fish stock assessments, but numerous other subjects have been covered, including protected species assessments and biology, habitat, ecosystem health and function, genetics, toxicology, physical oceanography, and socio-economics.

The 100th peer-review project involved a stock assessment. As part of the South East Data, Assessment, and Review (SEDAR) process, three outside scientists contracted by the CIE provided detailed technical reviews of the stock assessments of the gag grouper populations in the South Atlantic and Gulf of Mexico. The CIE now conducts between 15 and 20 peer-review projects per year.

Fisheries Survey Vessel Program

Working closely with the NOAA Office of Marine and Aviation Operations, acquisition and construction of NOAA's four new fisheries survey vessels (FSVs) was well underway in 2006. These ships are among the most technologically advanced and versatile of their kind in the world. Major design elements include:

- Acoustic quieting to meet or exceed international radiated noise standards, thereby increasing the sensitivity of sonar instrumentation and reducing avoidance reactions of fish or marine mammals.
- State-of-the-art science laboratories, electronics, and catch-processing facilities, including ME-70 multi-beam sonar to measure fish biomass and abundance, and to map and characterize seafloor habitat.
- Dynamic positioning through advanced instrumentation and a computer-controlled high lift rudder and water-jet bow thruster, which enables station-keeping about a fixed point in the ocean and following precise track lines in a variety of sea conditions.
- Berthing for scientific personnel sufficient to maintain 24-hour operations.

The first-in-class NOAA ship *Oscar Dyson*, home-ported in Kodiak, Alaska, is now operating in Alaskan and Pacific coastal waters. The *Henry B. Bigelow* was delivered in 2006, and will operate in the North Atlantic. The *Pisces*, still under construction, will operate in the Gulf of Mexico, South Atlantic, and Caribbean. Work on the fourth, yet un-named, vessel began in 2006. This ship will serve the Pacific coast. Dedicated FSVs are an essential element to acquire the data needed to make sound living marine resource management decisions, and these *Dyson* Class survey ships will serve the nation well into the 21st century.

NOAA Fisheries Service scientists unpack sampling equipment on an ice flow in the eastern Bering Sea. Scientists take ice core samples to measure phytoplankton, salinity, nutrient, and sediment content of the ice and then use the hole created by the core to determine ice thickness. Ship in background is the University of Washington's Thomas G. Thompson.

In 2006, NOAA Fisheries Service published a guide to the identification of the early stages of fishes in a two-volume book, entitled *Early Stages of Atlantic Fishes: An Identification Guide for the Western Central North Atlantic.*

NOAA Fisheries Service Publishes *Early Stages of Atlantic Fishes*

In 2006, NOAA Fisheries Service published a guide to the identification of the early stages of fishes in a two-volume book, entitled *Early Stages of Atlantic Fishes: An Identification Guide for the Western Central North Atlantic.* The 2,672-page treatise, with its 215 chapters and 3,000 illustrations, provides information on the early life history of 2,285 species within 214 families. The book, with contributions from more than 70 international larval fish experts, provides complete information for identifying eggs, larvae, and juveniles in the area from Cape Hatteras, N.C., south of the Equator, including the Gulf of Mexico and Caribbean Sea, and east to the mid-Atlantic—an area that includes the territorial waters of at least 40 nations. The book provides the basic information needed to understand the complex biology and ecology of fishes. Dr. William Richards of NOAA Fisheries Service's Southeast Science Center developed the guide.

Northwest Fisheries Science Center Celebrates 75 Years of Innovative Science

In October 2006, more than 200 Northwest Fisheries Science Center staff and scientists and the public celebrated the 75th anniversary of the Montlake laboratory in Seattle, Wash. NOAA Administrator Vice Admiral Conrad Lautenbacher helped mark the event, saying in his keynote address: "Montlake epitomizes the concept of NOAA Fisheries Service adding value to science. You have continued to make advances towards an ecosystem approach to managing our living marine resources, particularly through recent scientific efforts to inform policy decisions affecting cleanup of the Puget Sound."

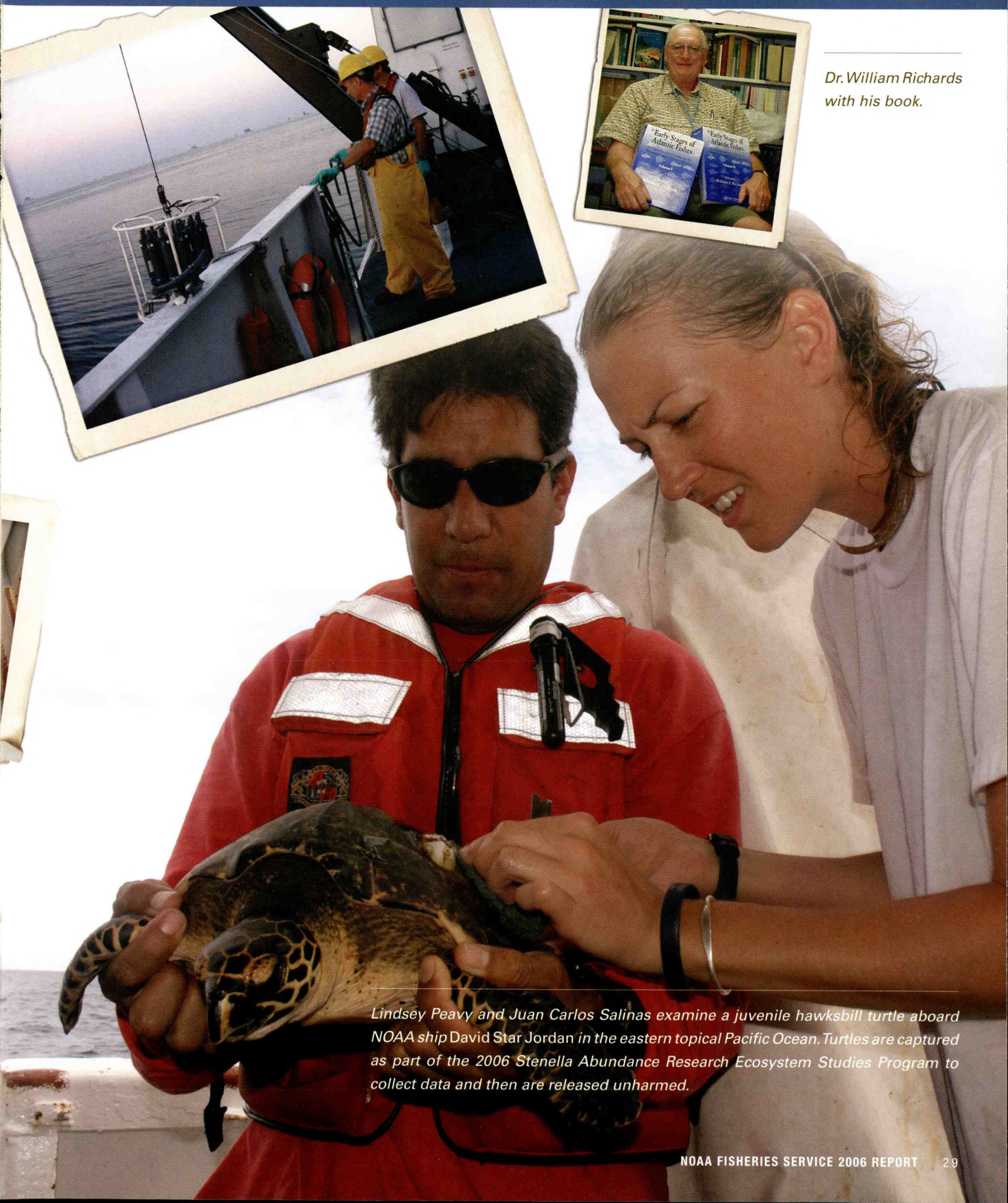
In addition to representatives from Washington Governor Gregoire's office, dignitaries from the University of Washington, and many regional organizations such as People for Puget Sound attended the ceremonies. The day's festivities included the dedication of a NOAA commemorative national geodetic marker, an interactive science fair focusing on technology past and present, and an awards ceremony highlighting recent staff achievements.

Studies Affirm Seafood Is a Healthy Food Choice

An independent study by the National Academies of Science, Institute of Medicine says Americans can decrease their risk for heart disease by substituting seafood for other animal proteins. The joint NOAA Fisheries Service U.S. Department of Agriculture study, released October 17, 2006, found that seafood is rich in nutrients, low in saturated fats, and should be incorporated more into the American diet to reduce the risk of early death by heart disease—the primary cause of death in this country.

Titled "Seafood Choices: Balancing Benefits and Risks," the study was commissioned to help the public understand how to maximize important health benefits of eating seafood while minimizing exposure to environmental contaminants found in nearly every food source, including fish.

Another independent study, released a day later in the *Journal of the American Medical Association,* concluded that the benefits of eating seafood far outweigh perceived risks. Researchers with the Harvard School of Public Health conducted the study, "Fish Intake, Contaminants, and Human Health: Evaluating the Risks and the Benefits." The paper pointed out that even modest consumption of fish reduces risk of coronary death by 36 percent and total mortality by 17 percent. Consistent with the NAS study, the Harvard authors recommend consumers vary the species of fish in their diets and limit intake of large predatory species, which are highest in mercury content.



Dr. William Richards with his book.

Lindsey Peavy and Juan Carlos Salinas examine a juvenile hawksbill turtle aboard NOAA ship David Starr Jordan *in the eastern tropical Pacific Ocean. Turtles are captured as part of the 2006 Stenella Abundance Research Ecosystem Studies Program to collect data and then are released unharmed.*

Office for Law Enforcement

In 2006, priorities for NOAA Fisheries Service's Office for Law Enforcement (OLE) included: increasing observer training to mitigate incidents involving observer harassment; initiating a program to review OLE's Cooperative Enforcement Program; intensifying investigation into illegally imported seafood; and attaining re-accreditation through the Commission for Accreditation for Law Enforcement Agencies.

Priorities for 2006

In 2006, priorities for NOAA Fisheries Service's Office for Law Enforcement (OLE) included: increasing observer training to mitigate incidents involving observer harassment; initiating a program to review OLE's Cooperative Enforcement Program; intensifying investigation into illegally imported seafood; and attaining re-accreditation through the Commission for Accreditation for Law Enforcement Agencies. The State of Hawaii became the latest addition to the expanding Joint Enforcement Program, as $13 million was distributed to state and territory law enforcement agencies.

Fishermen Get $4.5 million for Vessel Monitoring Systems

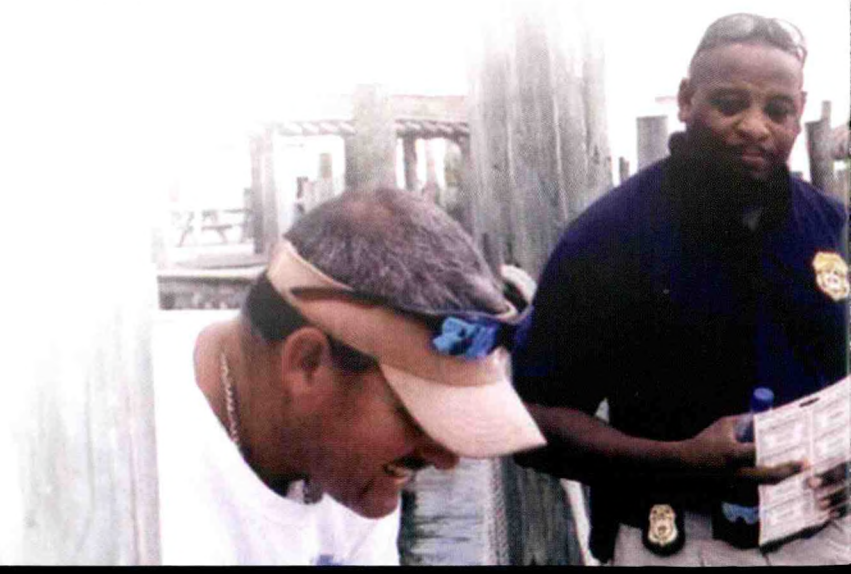
NOAA Fisheries Service uses the Vessel Monitoring System (VMS) to monitor commercial fishing vessels to ensure compliance with fisheries regulations. In 2006, the VMS program expanded into several new geographic areas, including Essential Fish Habitat in Alaska and the Northwest Hawaiian Islands National Monument, as well as the Atlantic sea scallop and Groundfish Fisheries in the Northeast. Currently, OLE monitors over 4,100 vessels participating in 17 different fisheries. VMS has proven to be an extremely cost-effective tool for enforcement, while enhancing the communications capabilities of the fishermen and protecting the resource.

In 2006, Congress provided funding to support reimbursements of $4.5 million to fishermen who purchased a VMS unit. Through an agreement with the Pacific States Marine Fisheries Commission, the OLE established a program to distribute funding to vessel owners and/or operators who purchased VMS units to comply with fishery regulations requiring the use of VMS. The agreement with the Commission allowed speedy delivery of funds to fishermen, in some cases to meet a short deadline to have VMS in operation within the northwest Hawaiian Islands.

Joint Enforcement Agreement Program Continues to Benefit Coastal States

Marine conservation enforcement activities provided through Joint Enforcement Agreement-funded programs are a critical element of protecting our nation's marine resources. Through the OLE's Joint Enforcement Agreement Program, 26 coastal states and U.S. territories received federal funding to enhance law enforcement capabilities.

In 2006, over $13.2 million was dispersed to our partners in exchange for over 246,449 hours of marine patrols, fishing vessel monitoring, and water-borne inspections of catches and fishing gear. The State of Hawaii joined the program for the first time. State and territorial officers provided additional patrol and inspection resources to conduct boardings and dockside checks for compliance with federal fishery management plans.



In the Northeast, NOAA agents and officers conducted several joint enforcement operations at the Maine/Canadian border. These investigations, conducted with the Maine Marine Patrol, U.S. Customs and Border Protection, and Canadian Department of Fisheries and Oceans, resulted in numerous seafood violations, including 80 shipments of illegal lobsters, 11 shipments of undersized groundfish and approximately 269 pounds of seal meat.

In the Northwest, State of Washington Department of Fish and Wildlife officers teamed up with NOAA Fisheries Service agents and U.S. Fish and Wildlife Service inspectors inspecting markets, wholesale dealers, and pet stores in the greater Seattle area. The inspections netted five criminal citations and numerous warnings for illegal species and illegal imports.

Outreach Activities

OLE is working with Seattle Boy Scouts on a program called "Homeland Exploring," which is part of the Boy Scouts activities. OLE agents, along with other federal law enforcement agencies, are providing presentations at Seattle-area high schools.

OLE is assisting Native Americans from Barrow, Alaska, in transferring a beluga skeleton to the Natural History Museum of Sierra College in Rockland, Calif. The Native Americans donated the skeleton to OLE, and the college will receive the skeleton through an OLE loan agreement.

Enforcement Actions

NOAA Takes Bite Out of New York Fish Dealer in Shark Case

NOAA Fisheries Service settled a multiple violation shark case with a Brooklyn fish dealer. The fish dealer purchased shark meat and fins without a federal permit, failed to report the majority of those purchases to federal authorities, and possessed fins from seven shark species prohibited from harvest under federal law, including basking and white sharks. The fish dealer must pay a civil penalty of $750,000 and forfeit nearly 1,000 pounds of dried shark fins, including more than 230 pounds from prohibited species worth approximately $80,000. An additional $250,000 penalty was suspended.

Tiny Spiny Lobsters Bring Big Fines

A seafood company and two individuals were convicted under the Lacey Act for a scheme to import undersized spiny lobster tails from Jamaica to the U.S. Sentencing included criminal fines of $58,000, 21 months imprisonment for one individual, and 12 months and 1 day imprisonment for the other individual.

Flagrant Violations Aboard Fishing Vessel Net $254,500 Fine

NOAA Fisheries Service assessed a $254,500 civil penalty and permit sanctions against three owners and captains of a catcher/processor fishing boat operating in the Alaska fisheries. Numerous violations were committed, including tampering with or destroying observer's samples and equipment; failure to provide observers a safe work area; failure to notify observers prior to bringing fish aboard to allow sampling of the catch; failure to provide reasonable assistance to observers; and interfering with or biasing sampling procedures employed by observers. These were violations of the Magnuson-Stevens Fishery Conservation and Management Act and the Marine Mammal Protection Act.

Owners and operators of the foreign flagged container vessel, *Med-Taipei,* have agreed to settle a major discharge violation inside the Monterrey Bay National Marine Sanctuary.

In Other Enforcement Actions

Owners and operators of the foreign flagged container vessel, *Med-Taipei,* have agreed to settle a major discharge violation inside the Monterrey Bay National Marine Sanctuary. This case involves 15 fully loaded containers falling off the *Med-Taipei* some 17 miles offshore from Point Pinos, Calif. Oceans Transportation Inc., Italia Marriterma, and Yang Ming Transport Corporation have agreed to pay $3.25 million as a result of the settlement.

A $10,000 Notice of Violation (NOVA) was issued to a whale watch vessel owner and operator for a 2003 incident involving a strike of a humpback whale by the Honolulu-based whale watch vessel. Whales are protected under the Marine Mammal Protection Act. The incident received significant media attention because a child onboard died as a result of the whale strike.

A $500,000 NOVA and suspension of vessel and operator permits was issued to the fishing vessel, *Gold Nugget II,* to Andrew J. Willey Jr. and William F. Williams for exceeding the 400 pounds scallop trip limit and false statements.

A $98,000 NOVA was issued to Jeffrey's Seafood and the fishing vessel, *Raven,* based out of Cape Hatteras, N.C., for multiple violations regarding landing shark carcasses with fin ratios greater than 5 percent, trip landings of sharks greater than 4,000 pounds, and harvesting prohibited species.

The case against the fishing vessel, *Chuen Fa Scheng,* which was seized for illegally fishing in the U.S. Exclusive Economic Zone surrounding the Northern Mariana Islands, was resolved with the vessel's owner paying $290,000 to the U.S. government and agreeing to install a Vessel Monitoring System.

International Program

Priorities for 2006

Two top priorities in international fisheries management in 2006 were to improve the conservation of fish and marine mammals under the jurisdiction of two high-profile international fora, the International Commission for the Conservation of Atlantic Tunas (ICCAT) and the International Whaling Commission (IWC). ICCAT manages the highly migratory species such as tuna, billfish, and sharks in the Atlantic Ocean, while the IWC monitors and manages the status of certain whale populations worldwide. A key to more effective management is to provide executive leadership through chairing the international body.

International Implications of the Magnuson-Stevens Fishery Conservation and Management Act

The December 2006 passage of the Magnuson-Stevens Fishery Conservation and Management Act by Congress contained language that will benefit the U.S. in its dealings with foreign countries regarding some fishing matters. The Act directed NOAA Fisheries Service to develop measures to combat illegal, unregulated, or unreported (IUU) fishing and fishing that impacts protected living marine resources. NOAA Fisheries Service will develop a definition of IUU fishing and procedures to identify and certify countries whose vessels are responsible for IUU fishing and fishing that impacts protected living marine resources.

Dr. Bill Hogarth Elected Chair of International Whaling Commission

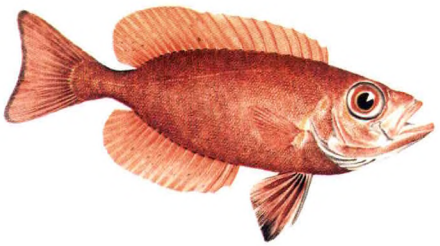
NOAA Fisheries Service's Dr. Bill Hogarth was unanimously elected to chair the International Whaling Commission (IWC) at its' 58th annual meeting in 2006. Dr. Hogarth currently serves as the U.S. IWC Commissioner and will serve as the IWC Chair for a three-year term. The IWC was established under the International Convention for the Regulation of Whaling in 1946. The purpose of the Convention is to provide for the proper conservation of whale stocks. There are currently 71 member countries. The 59th annual IWC meeting will be held May 2007 in Anchorage, Alaska.

Regional Workshops Held to Improve ICCAT

Dr. Bill Hogarth is currently serving as the Chairman of the International Commission for the Conservation of Atlantic Tunas (ICCAT) the international body that manages highly migratory species in the Atlantic Ocean. In order to improve the transparency and functioning of the organization, Dr. Hogarth had the innovative idea to convene a series of regional workshops, which would allow each of the ICCAT members the opportunity to meet with the Chairman in an informal setting. Five workshops were held during 2006 covering the five major geographic areas of ICCAT's membership: North Africa, Central and South America and the Caribbean, West and South Africa, Distant Water, and North Atlantic. The workshops were a resounding success with a broad range of participation by ICCAT's diverse membership. Dr. Bill Hogarth has already implemented improvements to ICCAT's operations based on feedback from the workshops. In addition, the comments and suggestions with longer-term implications have been referred to ICCAT's new working group on the strengthening of the Commission.

ICCAT Annual Meeting

The International Commission for the Conservation of Atlantic Tunas (ICCAT) held its annual meeting November 17–26, 2006, in Dubrovnik, Croatia. Dr. Bill Hogarth served as Chair of the meeting and the lead U.S. Commissioner. The 2006 ICCAT meeting was one of the most difficult and contentious in recent memory. Conservation and management measures for six major stocks (north and south swordfish, eastern and western bluefin tuna, and blue and white marlins) were discussed. The U.S. accomplished the majority of its objectives



On October 2, 2006, President George W. Bush signed a memorandum directing the Secretary of State, in consultation with the Secretary of Commerce, to work with other countries and international organizations to eliminate fishing practices that jeopardize fish stocks and the habitats that support them.

including extending and improving the rebuilding plan for blue and white marlins, adopting conservation and management measures in line with scientific advice for swordfish and western bluefin tuna, and maintaining the current U.S. allocation of both swordfish and western bluefin tuna. Unfortunately, despite vigorous efforts by the U.S., ICCAT adopted new management measures for eastern bluefin tuna that did not end overfishing of that stock, in spite of clear scientific advice that failure to do so could result in stock collapse in the near future. In a 10-4-4 vote, the European Community prevailed in the adoption of a set of conservation and management measures that, while enhancing fishery monitoring and control measures, allows total catches to exceed scientific advice by 50 percent.

President Bush Provides Guidance on Promoting Sustainable Fisheries and Ending Destructive Fishing Practices

On October 2, 2006, President George W. Bush signed a memorandum directing the Secretary of State, in consultation with the Secretary of Commerce, to work with other countries and international organizations to eliminate fishing practices that jeopardize fish stocks and the habitats that support them. Under the memorandum, the Secretary of State is directed to work with Regional Fishery Management Organizations and through other cooperative arrangements to establish rules based on sound science that will enhance sustainable fishing practices while also phasing out destructive fishing practices.

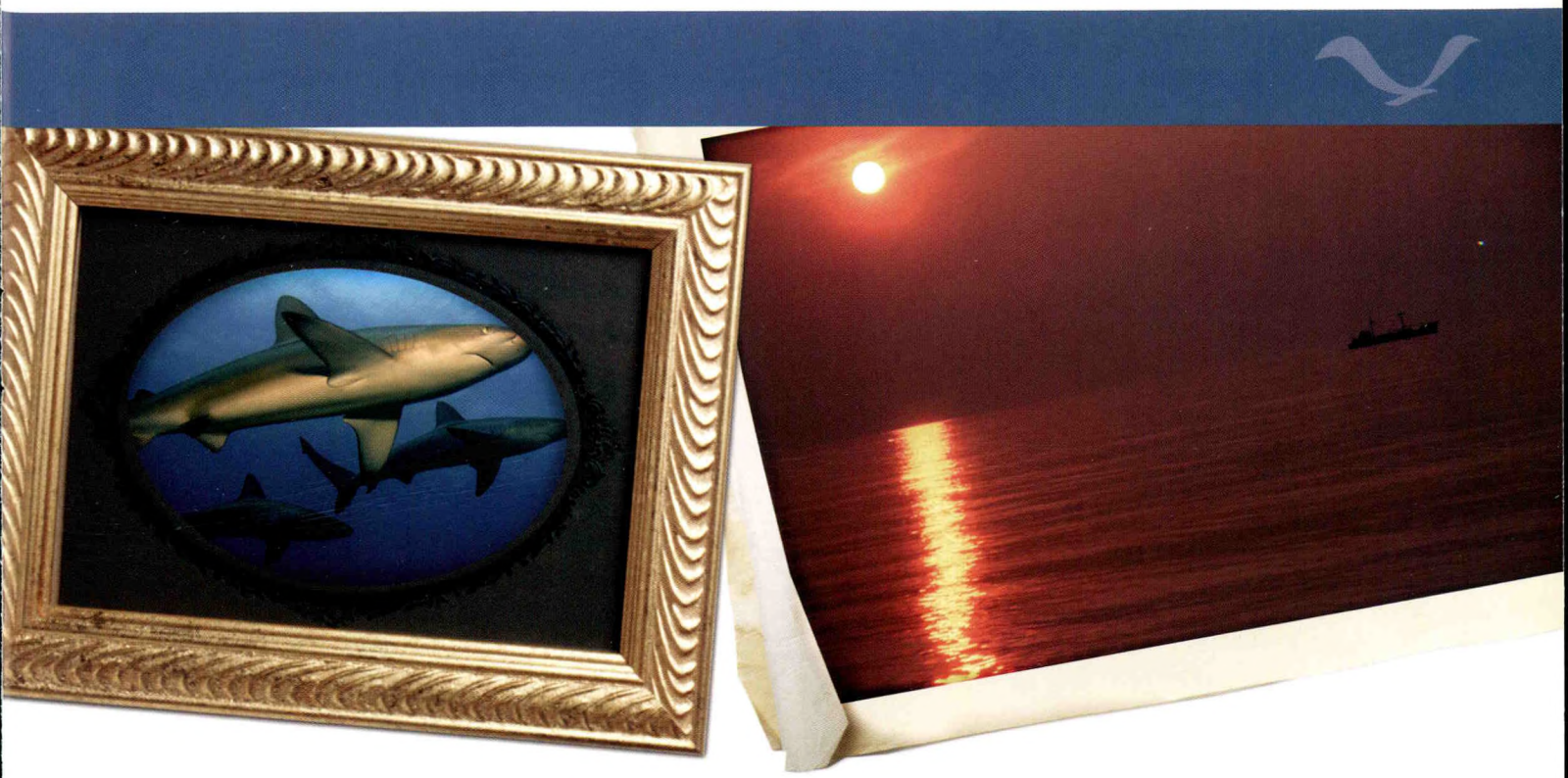
The President also directed the Secretary of State to work with other countries to establish new institutional arrangements, including new regional organizations, to protect ecosystems in high seas areas where no management structure or arrangement currently exists. The President also called for immediate action to prohibit destructive fishing practices in areas of the high seas where there are no applicable conservation or management measures or in areas with no applicable international fishery management organizations or agreements. The actions were to be put in place until conservation and management measures consistent with the goals of the Magnuson-Stevens Fishery Conservation and Management Act, the United Nations Fish Stocks Agreement, and other relevant fishery management instruments are adopted and implemented to regulate these fisheries.

Meeting with Regional Fishery Management Organizations

In May 2006, NOAA Fisheries Service convened the first meeting of U.S. federal Commissioners of international living marine resources management organizations. The purpose of this meeting was to discuss U.S. goals across these institutions and how best to communicate U.S. objectives, so that U.S. delegations could present a consistent message in these fora. As a result of that meeting, draft "white papers" were developed on topics such as bycatch, fishing capacity, and Illegal, unregulated, and unreported (IUU) fishing. Based on the success of this meeting, Dr. Bill Hogarth convened a meeting of all U.S. Commissioners in Silver Spring on January 9 2007. Dr. Bill Brennan, Deputy Assistant Secretary for NOAA, was on hand to welcome participants and provide a broader NOAA perspective. In addition to reviewing the white papers, Commissioners discussed the new international provisions in the MSA, preparations for the Kobe summit in late January, and funding for international activities. NOAA Fisheries Service plans to make this an annual event.

U.N. Fish Stocks Agreement Review Conference

A United States delegation consisting of representatives from NOAA, Department of State, the U.S. Coast Guard, and non-governmental organizations participated in the Review Conference for the U.N. Fish Stocks Agreement (UNFSA), May 22–26 at United Nations Headquarters in New York. The conference reviewed and assessed the



adequacy of the existing provisions of the UN Fish Stocks Agreement and proposed means to strengthen the substance and methods of implementing the agreement. Participants agreed by consensus to several recommendations to strengthen the agreement, including conservation and management of stocks; mechanisms for international cooperation; monitoring, control and surveillance, and enforcement; assistance for developing states; overcapacity in the world's fishing fleets; and assessing the performance of regional fishery management organizations and the development of best practice guidelines.

Food and Agriculture Office of the U.N./CITES Memorandum of Understanding

After more than five years of consultations, the Food and Agriculture Organization (FAO) of the United Nations and the Convention on Trade in Endangered Species of Wild Fauna and Flora (CITES) formalized a process to provide FAO fisheries expertise to the CITES process of protecting endangered species by controlling trade. Called a Memorandum of Understanding, the work plan includes, among other projects, an Advisory Panel that provides FAO comments on commercially exploited aquatic species proposed for listing under the CITES convention.

First Negotiation Session to Establish a Regional Fisheries Management Organization for the South Pacific

The first steps to develop a regional fisheries management organization to better manage fisheries resources in the South Pacific Ocean were taken in 2006. The governments of Australia, New Zealand, and Chile (co-sponsors) launched an initiative in 2005 to explore how to manage non-highly migratory fisheries resources and the marine environment and its ecosystems from the adverse impacts of fishing in the high seas areas of the South Pacific Ocean.

The first international negotiation session to establish a regional fisheries management organization to accomplish this objective was held in Hobart, Australia, November 6–10, 2006. Participants, including the U.S., considered a draft agreement as well as voluntary interim measures. Significant progress was made on discussing the draft agreement. The meeting considered a set of interim measures focusing on three areas: data collection, pelagic fisheries (e.g., jack mackerel and squid), and unregulated bottom fisheries (e.g., orange roughy, alfonsino, etc.) and vulnerable marine ecosystems.

Despite intense negotiations, the European Community, Russian Federation, and the Republic of Korea blocked consensus on the final draft text. This outcome was disappointing to the U.S. and the cosponsors. The issue will be taken up again in Chile in April 2007.

Integration of NOAA Fisheries Service as a Participating Government agency in the International Trade Data System

On October 13, 2006, the Safe Port Act was signed into law. Section 405 of the Act established the International Trade Data System (ITDS). The Act requires agencies that license trade activities to participate in ITDS as the single portal for collecting standardized trade data in an electronic format. Since NOAA Fisheries Service issues regulations determining the admissibility of certain fisheries products (e.g., dolphin-safe tuna, ICCAT, and other trade documentation schemes), the agency has been accepted as a participating government agency.

Participation in ITDS will require amendments to some regulations and revisions to several Office of Management and Budget-approved information collections. Internationally, ITDS will require the re-negotiation of some trade documentation schemes to allow for the use of electronic systems rather than paper.

NOAA Fisheries Service defines outreach as "two-way communication between the agency and the public to establish and foster mutual understanding, promote public involvement, and influence behaviors, attitudes and action with the goal of improving the foundations for stewardship."

New National Outreach Plan

NOAA Fisheries Service defines outreach as "two-way communication between the agency and the public to establish and foster mutual understanding, promote public involvement, and influence behaviors, attitudes and action with the goal of improving the foundations for stewardship." To improve on and formalize the agency's outreach efforts, the Partnerships and Communications Division within the Office of Sustainable Fishing developed a national outreach plan. The division assembled a core team to draft a new national outreach strategy utilizing NOAA Fisheries Service communicators from around the nation. Following a comprehensive review, the new national outreach strategic plan was unveiled in late 2006. The goals and objectives of the plan will guide NOAA Fisheries Service outreach efforts throughout 2007 and beyond. Most notably, the new outreach strategy will provide consistency in the way NOAA Fisheries Service communicates information and messages to all of its constituencies.

Kids listen for the signals emitted by radio transmitters that are used to track Six-Gill Shark movement in Puget Sound. NOAA Kids Day at Northwest Fisheries Science Center.

Bald Eagle Chicks Bring Renewed Hope for Channel Islands Restoration

NOAA Fisheries Service and partners had a huge success in the re-population of the American bald eagle breeding grounds on the Channel Islands, off the coast of Southern California. In April 2006, two bald eagle chicks hatched in separate nests on Santa Cruz Island. A publicly broadcast web camera gave people around the world the opportunity to watch one of the chicks grow and learn to fly. The hatchlings mark the first time in more than 50 years that bald eagles have successfully reproduced on the Channel Islands without the help of humans. Bald eagles disappeared from the islands in the mid-1900s, due in part to millions of pounds of DDT and PCBs being released into the ocean off the coast of Los Angeles from the 1940s to the 1970s. The chemicals in the food chain caused bald eagles to lay thin-shelled eggs that broke in the nest. NOAA Fisheries Service and co-trustees have been placing young bald eagles onto Santa Cruz Island since 2002, using funds recovered from the Montrose Settlements Restoration Program.

Duwamish Alive!

For Earth Day 2006, NOAA Fisheries Service partnered with other agencies and dozens of conservation groups to host *Duwamish Alive!*, a volunteer work event in Seattle, Wash. More than 800 volunteers gathered at six sites along the Duwamish River to plant native plants and remove invasive species and garbage from the waterfront. *Duwamish Alive!* helped restore river health, improve salmon habitat, and reconnect citizens to Seattle's river. The Duwamish River supports the endangered Puget Sound Chinook salmon. The mouth of the Duwamish is critical to the successful life history of this species because it provides a staging area where the Chinook acclimate to the increased salinity of the Sound before heading out to the ocean. Much of the Duwamish has been developed, so restoring the remaining habitat is critical. Since 1980, NOAA Fisheries Service has helped restore many sites along the Duwamish River through the Natural Resource Damage Assessment process and the Community-based Restoration Program.

First Dam Removal in New Jersey

Lopatcong Creek in Phillipsburg, N.J. now runs freely from its headwaters all the way to the Delaware River thanks to a NOAA Fisheries Service-funded breach in Pursel's Mill Dam—the first ever dam removal in the state. The Pursel family constructed the dam in 1927 to maintain water flow to a local mill, but the dam was no longer functioning. Opening the dam allows migratory fish, such as American eel and Blueback herring, to reach historic spawning grounds upstream for the first time in more than 150 years. These offspring will return to the creek, improving native fish populations—good news for the ecosystem and for anglers. In addition, the dam breach prevents flooding of nearby land and buildings, including a historic mill and family business. The Pursel's Mill Dam removal is one in a series of projects around the nation that are actively restoring rivers and their native fisheries. Project participants, including agencies, conservation groups, community members, and the dam's owner, Mr. Harry Pursel, gathered on site in May 2006 to celebrate the historic dam breach.

Oil Spill Restoration Project Completed on Staten Island

In April 2006, NOAA Fisheries Service officials joined local leaders in celebrating the completion of the Bridge Creek wetland restoration project on Staten Island in New York. The Bridge Creek project has restored 18 acres of wetlands, creating habitat for finfish, crabs, and waterfowl. The project involved removing sediment and creating channels within the marsh to restore tidal flow. Activities are currently underway to remove the invasive reed, *Phragmites*, so that native marsh plants can repopulate the wetland. This project is part of a larger rehabilitation effort to compensate for damages caused when an Exxon Bayway pipeline released 567,000 gallons of home heating oil into the Arthur Kill waterway in 1990.

Restoration Day

NOAA Fisheries Service Restoration Day expanded this year, as staff participated in two events—one in Maryland and one in Virginia. Nearly 200 NOAA staff and local schoolchildren participated in these events to restore coastal habitat on tributaries of the Chesapeake Bay. Volunteers stabilized the shoreline with native plants, planted oysters, built and installed more than two dozen nesting boxes for migratory warblers,

removed more than 750 pounds of marine debris from the James River shoreline, and planted underwater grasses grown in 20 NOAA offices around the region. The inaugural event in Virginia occurred on the James River at Virginia Commonwealth University's Rice Center, and the third annual Maryland event occurred downstream of the site of the Chalk Point oil spill on the Patuxent River.

Relics and Rivers: Dismantling Dams in New England

In 2006, NOAA Fisheries Service produced a 30-minute broadcast quality video that highlights dam removal and fish passage projects in New England. It is a story about community-inspired efforts to remove outdated dams and stream blockages to help restore New England's rivers and fisheries. The story traces the importance of anadromous fisheries to the earliest colonists and examines the role of dams in the decline of fisheries. The final product combines professional-quality project footage, interviews with partners, and historical letters, to produce a thought-provoking and visually interesting piece.

200,000+ People Reached Through Trade Exhibits Program

During 2006, the Partnerships and Communications Division (PAC) oversaw another successful year of comprehensive exhibits and special events programs—reaching an estimated 200,000-plus people with NOAA Fisheries Service information and messages. A major component of the program is international trade, an important economic activity for our constituents who import the majority of seafood eaten in the U.S.

NOAA Fisheries Service participated in a variety of domestic and international trade and industry shows, conferences, and expos, including: the Boston Seafood Show, the largest seafood industry gathering in the U.S.; the U.S. West Coast Seafood Show; the Pacific Marine Expo; the European Seafood Expo, the largest seafood industry trade event in the world; and the Chinese international seafood show. Our international fisheries trade specialists, one in Brussels and one in Japan, conducted activities that have increased U.S. trade activities to nearly $1 billion in the European Union and Asia. The international trade specialists assist processors and wholesalers in both procuring raw materials for processing and selling value-added products in both international markets.

International Partnerships

Partnerships and Communications (PAC) continued to develop cooperative relationships with other fishery management organizations. The Food and Agricultural Organization (FAO) of the United Nations and the World Bank have partnered with PAC to develop an estimate of global rent dissipation in marine fisheries (value of fisheries). PAC worked with FAO on the role of economics in ecosystems management and is developing a project with FAO on fisheries management in developing countries. The North Atlantic Salmon Conservation Organization (NASCO) adopted fisheries economics as its basic management tool as a result of PAC partnership and the International Affairs (IA) staff.

In 2006, NOAA Fisheries Service's Southeast Regional Office posted three eye-catching billboards in Florida.

Protect Dolphins Campaign

In 2006, NOAA Fisheries Service's Southeast Regional Office posted three eye-catching billboards in Florida. All three feature the same design and message, "Don't Feed Wild Dolphins—It's Illegal and It Kills." Two billboards were posted in Panama City, and the third was posted in Nokomis. Historically, both Nokomis and Panama City are problem areas for people wanting to interact with wild dolphins. The billboards—a new outreach tactic for the agency—are part of the "Protect Dolphins" outreach campaign to boost public awareness about the dangers of interacting with wild dolphins.

Northwest Fisheries Science Center Expanded Its Education Program to Increase Ocean Literacy

In 2006, the Northwest Fisheries Science Center (NWSFC) continued to develop its expanding education program with the creation of Active Center Educators (ACE). ACE consists of a group of NOAA Fisheries Service scientists who advise, guide, and actively participate in ongoing education activities. An annual award is being developed to honor scientists who contribute the most to the growing education program. The NWFSC continues to develop and deliver programs for diverse audiences, including: the NOAA Science Camp, NOAA Kids' Day, Water for Life Festival, Salmon Homecoming, and an American Meteorological Society's Online Ocean Studies Teacher Training Workshop.

Barbless Circle Hook Project

Barbless circle hooks can reduce the severity of injuries to both released fish and any protected species, such as the sea turtles and monk seals that frequent Hawaii's near-shore waters. Circle hooks allow the animal a better chance of quickly ridding itself of the hook without any human intervention.

During 2006, more than 5,000 barbless hooks were distributed free to anglers throughout Hawaii. In May 2006, a Big Island fisherman landed a 117 pound ulua on a barbless hook that he received through the project. Also in 2006, two of the largest shoreline tournaments in the state created barbless hook categories as a result of this project. During the past two years, NOAA Fisheries Service scientists from the Pacific Islands Fisheries Science Center have visited shoreline fishing outings and tournaments on several islands collecting data on the use of barbless hooks and distributing information to interested fishermen.

Executive Order Creates Northwestern Hawaiian Islands Marine National Monument

On June 15, 2006, President George W. Bush signed an executive order creating the Northwestern Hawaiian Islands Marine National Monument, the largest single conservation area in the history of the nation, and the largest protected marine area in the world.

In remarks during the signing ceremony, President Bush said, "the waters of the Northwestern Hawaiian Islands will receive our nation's highest form of marine environmental protection. We will protect a precious natural resource. We will show our respect for the cultural and historical importance of this area. And we will create an important place for research and learning about how we can be good stewards of our oceans and our environment."

The new monument demonstrates the importance of cooperative conservation. The Bush Administration is committed to working in a spirit of respect and cooperation with those seeking to protect the nation's land, sea, and sky and believes cooperative conservation is the best way to protect the environment.

The 10 islands and atolls that make up the northwestern Hawaiian Islands stretch over 1,400 miles (the distance from Chicago to Miami). In the tropical waters surrounding the archipelago, there are more than 4,500 square miles of coral reef habitat thriving under the surface. These undersea forests and mountain ranges comprise the largest remote reef system in the world. And this region holds the largest and healthiest untouched coral reef system in the U.S.

The NOAA Fisheries Service's Pacific Islands Regional Office is working with the National Ocean Service and other federal and State of Hawaii agencies on the management of this monument. The Office for Law Enforcement provides enforcement of the marine laws within its borders.

In 2006, the NOAA Fisheries Service's Southwest Region and NOAA's National Marine Sanctuary Program partnered with the California Resources agency to create the Ocean Communicators Alliance and the first California Ocean Awareness Campaign.

Thankyouocean.Org Launched

In 2006, the NOAA Fisheries Service's Southwest Region and NOAA's National Marine Sanctuary Program partnered with the California Resources agency to create the Ocean Communicators Alliance and the first California Ocean Awareness Campaign. The campaign, entitled "thankyouocean.org," was launched at the California and the World Ocean Conference in September 2006. The campaign website acts as a portal site that provides visitors access to public service announcements, volunteer resources, and educational tools. The links and resources are provided by more than 180 member organizations of the Ocean Communicators Alliance. Each of these organizations shares two common goals: increasing ocean literacy throughout California and the country, and encouraging stewardship of the nation's living marine resources.

NOAA's 4th Annual Science Camp Is a Favorite with Students

In July 2006, dozens of seventh and eighth graders attended the 4th annual NOAA Science Camp at the agency's Western Regional Center campus in Seattle, Wash. Sponsored by NOAA, Washington Sea Grant, and the University of Washington's Joint Institute for the Study of the Atmosphere and Ocean (JISAO), the camp is designed to give students hands-on experience and an inside look at science in the real world.

The week-long summer camp brings together NOAA scientists and students for fun projects and activities that explore the mysteries of our oceans and atmosphere. NOAA Fisheries Service's Alaska Fisheries Science Center, Northwest Fisheries Science Center, and Restoration Center were among the nine NOAA offices that had hands-on activities or tours for the campers to experience.

At this year's camp, students learned the importance of watersheds, how NOAA charts are made, the education needed to study marine mammals, how weather affects oil spills, and how NOAA divers use their equipment. At the end of the week, campers applied what they learned to solve an environmental mystery (a hypothetical fish kill at a local beach) and presented their scientific findings to family and friends.

Treasures of NOAA's Ark—A Huge Success at Home and on the Road

NOAA has a wealth of heritage resources that recall the agency's proud history and legacy of service to the nation. During NOAA Heritage Week—the second week in February—artifacts representing that heritage are put on display at the agency's Silver Spring headquarters.

In February 2006, the 2nd Annual Treasures of NOAA's Ark opened at NOAA's Silver Spring headquarters to record crowds. The Treasures exhibit highlighted NOAA's pioneers, people, and technology with new exhibits and vignettes, but incorporated some of the employees' favorite elements from last year's popular warehouse motif. The best of show nod went to the life-size replica of a 1930s fisheries field research laboratory—complete with period instruments and real specimens. More than 2,000 NOAA employees, friends, and family toured the exhibition that filled the NOAA Science Center. Also, the original 2005 Treasures of NOAA's Ark completed its six-month run at Nauticus in Norfolk, Va. Estimates for the number of people who toured Nauticus to see Treasures toped 100,000. The full exhibit has now traveled to Seattle, Wash., where in 2007, a NOAA team will oversee the placement of the exhibit at the Pacific Science Center located at the base of the Space Needle for a six-month run. The overall Treasures of NOAA's Ark Exhibit design and management is under the direction of a Headquarters NOAA Fisheries Service staff person.

Information Technology

CIO Demonstrates World-Class Web Technology

In 2006, the NOAA Fisheries Service Web Team within the Office of the Chief Information Officer (IT) again demonstrated its world-class ability to develop innovative, secure, and effective websites. The Team worked closely with every NOAA Fisheries Services headquarters office to craft coherently themed graphics, integrated programs, and standardized text. The Web Team analyzed existing sites and recommended improvements to make sites more accessible, readable, attractive, and useful for constituents and employees. New sites included: the Marine Mammal National Conference, Fishwatch, Tier III Conferences, MAFAC NewsDiscussion, Geographical Information Systems (GIS), and the NOAA Fisheries Service homepage. The Web Team seamlessly migrated servers and domains, with no loss of service at any time, which identified the NOAA Fisheries Service website as one of the up-and-coming federal sites to watch. The IT staff also developed a comprehensive Office of Management and Budget website privacy policy and developed the restoration clearinghouse and restoration monitoring planner. These projects are useful to advancing coastal fisheries habitat conservation and mitigation.

More than 2000 Fisheries Computers Encrypted in Record Time

In just a few weeks in 2006, the Office of the Chief Information Officer (CIO) met the Department of Commerce mandate to encrypt every laptop belonging to NOAA Fisheries Service. The office mobilized to swiftly design and implement a uniform strategy for encrypting more than 2,000 agency computers located at headquarters and at field offices throughout the nation. A follow-on action initiated by the CIO was security awareness and training of the agency's workforce and new mechanisms to ensure rapid, effective means to maintain secure operations throughout NOAA Fisheries Service. *Encryption* is the translation of data into a form that is unintelligible without a deciphering mechanism. Failure to properly encrypt is the concern underlying recent thefts and losses of government laptop computers. NOAA Fisheries Service's responsibility to the nation includes the protection of vast amounts of proprietary, financial, enforcement, and privileged information on regulatory matters, making IT security of unique importance to the Department of Commerce.

NOAA Fisheries Service 2006 Awards

The Leadership Awards were created to recognize outstanding performance, achievements, and leadership by industries, organizations, and individuals whose contributions to science and management have served to promote the best stewardship practices for the sustained use of the Nation's living marine resources.

Sustainable Fisheries Leadership Awards

In 2006, NOAA Fisheries Service introduced the Sustainable Fisheries Leadership Awards program. Initiated in June 2005 by the Under Secretary of Commerce for Oceans and Atmosphere, the Leadership Awards were created to recognize outstanding performance, achievements, and leadership by industries, organizations, and individuals whose contributions to science and management have served to promote the best stewardship practices for the sustained use of the Nation's living marine resources.

Comprised of six award categories, these awards encompass the fundamental elements necessary for promoting a public stewardship ethic over our Nation's living marine resources. Award categories include Special Recognition; Stewardship and Sustainability; Conservation Partnership; Science, Research and Technology; Coastal Habitat Restoration; and Public Education, Community Service and Media.

Selected from 48 highly qualified nominees, the 2006 inaugural award recipients were honored in June 2006 at an awards ceremony in Washington, D.C., for the following contributions and achievements:

Senator Ted Stevens received the *Special Recognition Award* for working tirelessly throughout his long and successful career to win the support of the U.S. Congress for the laws that form the basis of U.S. federal fisheries management and marine conservation programs. Senator Stevens has consistently advocated for science-based management of living marine resources, keeping the sustainable use of these resources at the forefront of the nation's agenda.

The Pollock Conservation Cooperative, made up of catcher/processors in the Alaska pollock fishery, received the *Stewardship and Sustainability Award* for voluntarily dividing up the overall annual harvest quota among participating fishing companies. This unique arrangement has ended the often wasteful "race for fish" and led to significant reductions in fishing capacity. It also resulted in a 50 percent increase in the number of Alaska pollock products made from each pound of harvested fish, as well as voluntary bycatch reduction efforts that complement federal fishery management measures.

Holland America Line received the *Conservation Partnership Award* for taking the initiative to develop and promote the adoption of whale avoidance measures as the international cruise industry standard. The company's dedication to protecting whales, regardless of its effect on the financial bottom line, is at the forefront of marine mammal conservation.

Ed Melvin of the Washington Sea Grant Program received the *Science, Research & Technology Award* for his cooperative scientific research with industry to develop innovative methods for seabird avoidance in Alaska's commercial longline fisheries. Melvin's research has helped reduce seabird bycatch by at least 80 percent in Alaska fisheries and is inspiring the global adoption of seabird avoidance methods and the innovative cooperative approaches with industry.

The Gulf of Mexico Foundation received the *Coastal Habitat Restoration Award* for its successful development and implementation of 33 coastal habitat restoration projects in five Gulf States. These projects are expected to restore nearly 14,000 acres of valuable coastal habitat that is important for the long-term health of marine resources. The Foundation manages a coastal partnership made up of volunteers who work on habitat restoration projects, fostering civic service, public education, and local ownership in these important coastal resources.

SeaShare received the *Public Education, Community Service & Media Award* for working with the fishing industry to develop an innovative hunger relief program. SeaShare works with fishing communities and hunger relief agencies throughout the country to feed hungry Americans with fish that otherwise would have been thrown back to the sea dead due to regulation. Since 1994, SeaShare has partnered with 60 companies to donate 20 million pounds of food to 96 locations in 31 states. SeaShare's program has allowed the fishing industry to put its bycatch to good use, thereby reducing waste and increasing a conservation ethic without compromising fisheries management goals.

2006 DEPARTMENT GOLD AND SILVER MEDAL AWARDS

GOLD

Individual Award

Nancy Thompson
Southeast Fisheries Science Center

Vera Trainer
Northwest Fisheries Science Center

Organizational Award

National Seafood Inspection Laboratory

Southeast Fisheries Science Center-Mississippi Laboratories

National Seafood Inspection Program

NOAA Corporate Services: Office of the Chief Administrative Officer, Project Planning and Management Division

NOAA Office of Marine and Aviation Operations

SILVER

Group Award

Bernadita Anulacion
Northwest Fisheries Science Center

Jon Buzitis
Northwest Fisheries Science Center

Tracy Collier
Northwest Fisheries Science Center

Mark Peterson
Northwest Fisheries Science Center

Linda Rhodes
Northwest Fisheries Science Center

Sean Sol
Northwest Fisheries Science Center

Gina Ylitalo
Northwest Fisheries Science Center

Elizabeth Scott-Denton
Southeast Fisheries Science Center

Shailer Cummings, Jr.
Office of Oceanic and Atmospheric Research

William Mowitt, Lieutenant—NOAA
Office of Marine and Aviation Operations

Edward Little, Jr.
Southeast Fisheries Science Center

Deborah Batiste
Southeast Fisheries Science Center

Elizabeth Bourgeois
Southeast Fisheries Science Center

Albert Gabel
Southeast Fisheries Science Center

Kathleen Hebert
Southeast Fisheries Science Center

Charles Armstrong
Southeast Fisheries Science Center

Bichnga (Jay) Boulet
Southeast Fisheries Science Center

Ted Flowers
Southeast Fisheries Science Center

Linda Guidry
Southeast Fisheries Science Center

Gary Rousse
Southeast Fisheries Science Center

Organizational Award

Northwest Fisheries Science Center

NOAA Fisheries Service Recipients

Individual Award

Dana Hartley
Northeast Regional Office

Janet L. Miller
Southeast Regional Office

Steven L. Thomas
Southwest Regional Office

Galen Tromble
Headquarters Office of Sustainable Fisheries

Group Award

Kathleen Jewett
Northwest Fisheries Science Center

Julie Peddy
Northwest Fisheries Science Center

Lynne Barre
Northwest Regional Office

J. Brent Norberg
Northwest Regional Office

Michelle Day
Northwest Regional Office

Keith Kirkendall
Northwest Regional Office

Jane Hannuksela
Office of General Counsel, Northwest

Christopher Fontecchio
Office of General Counsel, Northwest

AWARDS BEYOND THOSE OF THE DEPARTMENT AND OF NOAA

NOAA Fisheries Service Recipients of

2005 Presidential Early Career Award for Scientists and Engineers

Dr. Kathi Lefebvre
Northwest Fisheries Science Center

2006 Disabilities, Opportunities, Internetworking, and Technology Trailblazer Award, University of Washington

Julie Peddy
Northwest Fisheries Science Center

2006 William E. Ricker Resource Conservation Award, American Fisheries Society

Northeast Fisheries Science Center

Dennis Seem Award of Excellence

Cynthia Binkley
Southeast Regional Office

Hawaii's Living Reef Award—2006

Marine Debris Project, Coral Reef Ecosystem Division
Pacific Islands Fisheries Center

"My Hero" Project of the Sloan Foundation

Dr. Usha Varanasi
Director, Northwest Fisheries Science Center

National Association of Government Communicators Award

Connie Barclay
NOAA Fisheries Service—NOAA Public Affairs Office

Oscar Elton Sette Award, American Fisheries Society

Dr. Kenneth Sherman
Northeast Fisheries Science Center

Robert Avent Medal, George Institute for Biodiversity and Sustainability

Dr. Bill Hogarth
Assistant Administrator for Fisheries

Tribute to Women and Industry

Dr. Jamie King
NOAA Chesapeake Bay Office

2006 NOAA DISTINGUISHED CAREER AWARD RECIPIENTS

NOAA Fisheries Service Recipients

Debra Drinnin
Southwest Regional Office
For sustained superior administrative support to the Santa Rosa Office of the NOAA Fisheries Southwest Region during 22 years of service to NOAA.

Catherine Noonan
Retired from the Northeast Fisheries Science Center
For extraordinary efforts in supporting management and staff, particularly in times of extreme need throughout 37 years of service to NOAA.

Joseph Powers, Ph.D.
Retired from the Southeast Regional Office
For invaluable scientific and management contributions to the conservation and sustainable use of marine resources worldwide.

Lucille Tsukano
Pacific Islands Fisheries Science Center
For excellence in accuracy, integrity, and timeliness of fishery statistics and research data essential for marine resource conservation and management.

2006 DEPARTMENT BRONZE MEDAL AWARDS

NOAA Fisheries Service Recipients

Steven Bograd
Southwest Fisheries Science Center
For research and leadership in creating an understanding of the scientific basis for how climate variability impacts marine ecosystems.

Steven Fransen
Northwest Regional Office
For exceptional leadership in contentious negotiations for renewing a hydropower license with provisions to enhance passage of salmon runs in the Baker River, Wash.

Lance Garrison
Southeast Fisheries Science Center
For predictive modeling and risk assessments, which enable NOAA to minimize human impacts on protected marine species while not being overly burdensome to mariners and fishermen.

Steven Murawski
Director of Scientific Programs and Chief Science Advisor
For providing the vision and scientific and organizational leadership across NOAA to respond to devastating effects of hurricanes Katrina and Rita.

Loretta O'Brien
Northeast Fisheries Science Center
For research on the reproductive potential of finfish, specifically the effects of stock demographics and environmental factors.

David Ackley, Gregory Bledsoe, Tamara Bledsoe, Jessica Gharrett, Robert Keaton, Stephen Kocsis, Marina Lindsey, Pamela Mason, Jennifer Mondragon, Larry Talley, Jennifer Watson
Alaska Regional Office
For implementing an Interagency Electronic Catch Reporting System for the North Pacific Fisheries to ensure effective industry reporting and support.

Melissa Baird, David Kuligowski, Paul Moran, David Teel, Don Van Doornick
Northwest Science Center

J. Carlos Garza, Devon Pearse
Southwest Fisheries Science Center

Charles Guthrie, Richard Wilmot
Alaska Fisheries Science Center
For creating a collaborative, standardized coast-wide genetic database of Chinook salmon populations to estimate stock composition in mixed populations.

John Bortniak, Tiyo Fonte
Headquarters Office of Management and Budget

Steven Swartz
Headquarters Office of Science and Technology

John Moakley
Northeast Regional Office

Lori Budbill
Alaska Fisheries Science Center

Barry Thom
Northwest Regional Office

Margaret (Peggy) Solomon
Southeast Regional Office
For developing and implementing the electronic Annual Operating Plan system for budgeting and performance planning, tracking, and reporting for PPBES.

David Boughton, Peter Adams, Churchill Grimes
Southwest Fisheries Science Center
For leading the Coastal California Salmonid Monitoring Plan to measure recovery of California's Endangered Species Act Salmonid listings.

Thomas Cooney, Damon Holzer, Christopher Jordan, Peter Lawson, Michelle McClure, Mary Ruckelshaus, Heather Stout, Thomas Wainwright
Northwest Fisheries Science Center

Kim Kratz
Northeast Regional Office
For developing the scientific foundation for an adaptive approach to recovery planning for Endangered Species Act-listed salmon in the Columbia Park and along the Oregon coast.

John Catena, Eric Hutchins
Headquarters Office of Habitat Conservation
For leadership in working with U.S. and Canadian partners in conceiving, developing, and implementing the Gulf of Maine Habitat Restoration Strategy.

Natalie Cosentino-Manning
Headquarters Office of Habitat Conservation

Brian Mulvey
formerly of the Southwest Regional Office
For leading research and implementation of eelgrass and native oyster bed restoration programs that are improving habitat for recreational and commercial fisheries in San Francisco Bay.

Sam Flanagan, John Clancy, James Simondet, Richard Wantuck
Southwest Regional office
For developing the Humboldt Bay Municipal Water District Habitat Conservation Plan to promote and conserve ESA listed Coho, steelhead, Chinook, and associated aquatic habitat.

Steven Fromm, David Chevrier, Suellen Fromm, Lisa Hendrickson, Donna Johnson, Greg Lough, David Packer, Jose Pereira, Jeffrey Pessutti
Northeast Fisheries Science Center

David Stevenson
Northeast Regional Office
For the expeditious review and revision of over 30 species documents for the designation of Essential Fish Habitat by the Fishery Management Councils.

John Higgins, Jr., Amanda Johnson, John Kenney, Jr., Glenn Salvador
Northeast Regional Office
For managing a fishing gear buyback program promoting the protection and conservation of endangered right whales.

Robert Turner, David Hirsh, Laura Hamilton
Northwest Regional Office
For completing the largest Habitat Conservation Plan in the Nation, the comprehensive Forest Practices Habitat Conservation Plan for Washington State.

Kimberly Amendola, Laura Engleby
Southeast Regional Office

Blair Mase, Keith Mullin, Patricia Rosel
Southeast Fisheries Science Center

Connie Barclay
NOAA Fisheries Office of Communications

Teresa Rowles, Trevor Spradlin
Headquarters Office of Protected Resources

Amy Holman, J. Jason Rolfe
NOAA National Ocean Service
For successful rescues of captive and wild marine mammals displaced and injured during hurricanes Katrina and Rita.

Restricted Access Management Program
Alaska Regional Office
For implementing the Bering Sea and Aleutian Island Crab Rationalization Program, which significantly decreased the number of crab fishery harvesting participants in the Alaskan waters.

Louis Jachimczyk, Emanuel Antonaras, Allan Coker, Patrick Flynn, Gregg Houghaboom, Ross Lane, Jeffrey Ray
Headquarters Office of Law Enforcement
For providing the necessary security and supplies required by the WFO in Slidell, La., to continue reporting weather and flood data to the public.

Jerome Pella
formerly with the Alaska Fisheries Science Center

Michele Masuda
Alaska Fisheries Science Center
For creating a method that recognizes for the first time individual fish populations in a mixed-population sample with no baseline genetic data.

William Richards, James Ditty, Thomas Jackson, Joaquin (Jack) Javech, John Lamkin, Joanne Lyczkowski-Shultz, Larry Massey
Southeast Fisheries Science Center
For compiling previously unknown data on fish larvae, allowing for the prediction of adult populations and the delivery of new and urgently needed scientific advice to fishery Managers.

Susan Abbott-Jamieson, Rita Curtis
Headquarters Office of Science & Technology

Lawrence Perrusso, James Waters
Southeast Regional Office

Stephen Holiman, Palma Ingles
Southeast Fisheries Science Center
For conducting a rapid assessment of Gulf fishing communities post-Katrina and ongoing assessments of impacts to recovery of Gulf fishing industry

Clay Porch, Elizabeth Brooks, Shannon Cass-Calay, Guillermo Diaz, Scott Nichols, Joshua Nowlis, Mauricio Ortiz, Gerald Scott, Stephen Turner
Southeast Fisheries Science Center
For developing leading-edge assessments of Gulf of Mexico red snapper stock by integrating new and diverse sources of biological and fishery data.

Jerome (Jerry) Erbacher, Maria Uitterhoeve
Headquarters Office of Sustainable Fisheries

Harold (Harry) Mears
Northeast Regional Office
For supporting the President's Management Agenda (PMA) initiative in achieving organizational excellence by strengthening NOAA's financial and administrative services through an integrated team of line office and grants office personnel (group nomination submitted by the NOAA Acquisitions and Grants Office).

Mark Spurrier
Headquarters Office of Law Enforcement
For the design and execution of a Continuity of Operations exercise that improved NOAA's ability to continue essential functions during all circumstances, including life-threatening weather events or terrorists attacks (member of a group nomination submitted by the NOAA Office of the Chief Information Officer).

Everett Baxter, Stuart Cory, Mark Spurrier
Headquarters Office of Law Enforcement
For providing unified emergency response and incident management during hurricanes Katrina and Rita by establishing national-level, inter-agency coordination, establishing priorities, and supporting deployed and impacted employees and assets (group nomination submitted by the NOAA Office of the Chief Information Officer).

Howard L. Brown, Steven A. Edmondson, Rodney R. McInnis, Eric Theiss
Southwest Regional Office
For negotiating an agreement to significantly improve conditions for Salmonids affected by the Oroville Facilities Hydroelectric Project (group nomination submitted by the NOAA Office of the General Counsel).

Rebecca Allee
NOAA Ocean Service

Miles Croom
Southeast Regional Office
For extraordinary support to the five U.S. Gulf of Mexico states in the development of the Governors' Action Plan for Healthy and Resilient Coasts, (group nomination submitted by the National Ocean Service).

Peter Bergstrom, Jill Bieri, John Collins, Steven Giordano, Richard (Rich) Takacs
Headquarters Office of Habitat Conservation

Michelle Fox Burnett
formerly with NOAA Fisheries Service
For developing, organizing, and implementing the annual NOAA Restoration Day during which over 100 NOAA employees volunteered to help restore the Chesapeake Bay (group nomination submitted by the National Ocean Service).

Carli Bertrand
Headquarters Office of Policy

Rafael Lopez
Headquarters Office of Habitat Conservation
For developing the Marine Managed Areas Inventory, a state-of-the-art tool to access valuable information about the Nation's marine managed areas (group nomination submitted by the National Ocean Service).

Kevin Chu
Northeast Regional Office
For quick action and exceptional initiative helping shellfish managers protect human health in the face of the 2005 New England harmful algae bloom (member nomination submitted by the National Ocean Service).

Jennifer Steger
Headquarters Office of Habitat Conservation
For leadership and development of an innovative approach to promote restoration of natural resources in the highly urbanized Hylebos Waterway (group nomination submitted by the National Ocean Service).

Allen Butner, Joseph (John) Gorman, Rance Morrison
Alaska Regional Office

Daniel Decker, Dan Foy, Jr., Joseph B. O'Gorman, Joseph Orsi
Alaska Science Center

Erik Braun, Anne Tedrick
Northeast Regional Office

Richard Ledgerwood, James Peacock, Brad Ryan
Northwest Science Center

Timothy Sheehan, Michael Tork
Northeast Science Center

Susan Boring
Southwest Regional Office

Sean Hayes
Southwest Science Center

Michael Henderson
Southeast Regional Office

William (Bill) Bradley
Office of the Chief Information Officer

Christina Fellas
Northwest Regional Office

Layne Bolen, Dawn Golden
LCDR

Stephen Thumm
Pacific Island Regional Office

Stephanie Bost
Headquarters Office of Management and Budget

David Sutherland (retired), Alfred Cook (retired), Juan Leversque (formerly, with the Southeast Regional Office), Russell Swafford
Southeast Fisheries Science Center

Teresa Turk
Headquarters Office of Science and Technology

Patrick Williams
Southeast Fisheries Science Center
For voluntary service provided during FEMA post-disaster relief operations after multiple hurricane strikes in 2005 (group nomination submitted by the National Weather Service).

Distinguished Career Award Presented to:

Joe Scordino
Northwest Regional Office
For your 32 years of Service to the Nation; Outstanding, Dedicated Leadership as the Deputy Regional Administrator of the Northwest Regional Office During its Dramatic Expansion to Address Increased Responsibilities Supporting the Endangered Species Act; and Exceptional Efforts With State and Tribal Stewardship Co-managers in the Pacific Northwest.

Vision

The American people enjoy the riches and benefits of healthy and diverse marine ecosystems.

Mission

Stewardship of living marine resources through science-based conservation and management and the promotion of healthy ecosystems.

Publication Production and Project Management:
Gordon Helm | Partnerships and Communications | (301) 713-2379 x 151

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(301) 713-2370 x 144

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Partnerships and Communications (301) 713-2379

Public Affairs (301) 713-2370

National Marine Fisheries Service
1315 East West Highway
SSMC 3, F/SF, Room 9535
Silver Spring, Maryland 20910