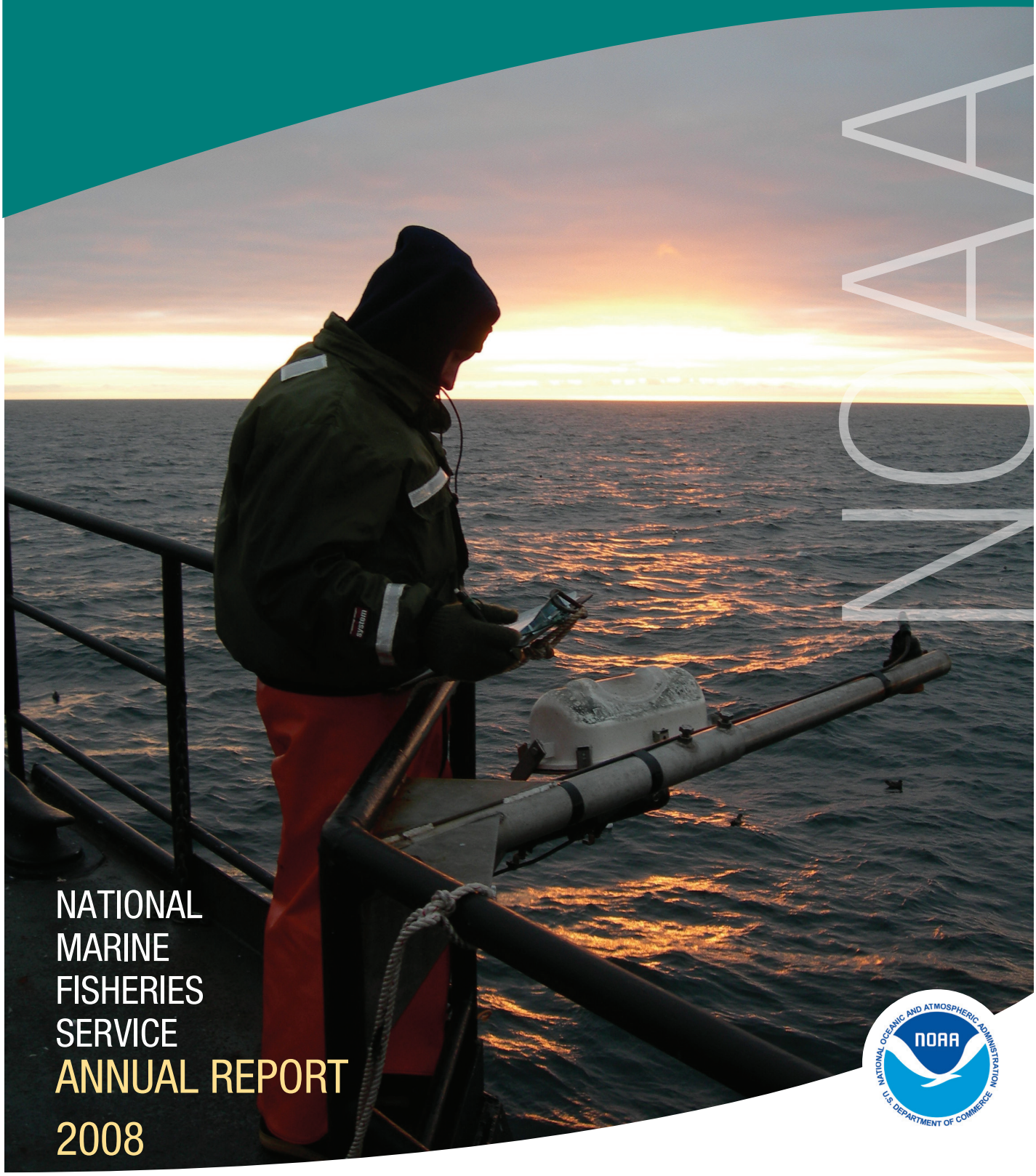
NATIONAL MARINE FISHERIES SERVICE
NATIONAL OBSERVER PROGRAM



NOAA

NATIONAL MARINE FISHERIES SERVICE ANNUAL REPORT 2008

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

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Cover photo: North Pacific Groundfish Observer Program, Alaska Fisheries Science Center.

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Executive Summary

The National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) utilizes data from a variety of sources, ranging from fishery-independent surveys to commercial and recreational fishery data, to support its science-based stewardship of the nation's living marine resources. Of these sources, data collected by fisheries observers placed on board commercial fishing vessels through NMFS observer programs are considered one of the best sources of fishery-dependent data used in fisheries conservation and management.

In FY 2008[1] NMFS observer programs continued to provide high quality biological information on the nation's fisheries. These data are utilized by NMFS scientists and fisheries managers carrying out conservation and management activities such as stock assessments, quota monitoring, and development of bycatch reduction measures. In 2008, 117 fish stock assessments were conducted by NMFS; observer data, such as the frequency and length of discarded species, are an important component of the assessment process. Observer data are also one of the primary sources of data used in protected species stock assessments. In 2008, updated stock assessment reports were published for 27 Pacific, 42 Atlantic, and 16 Alaskan marine mammal stocks. The results of each assessment are used to set management and conservation goals.

Work on the NMFS National Bycatch Report (NBR), also continued throughout FY 2008. The Report, a collaborative project coordinated by the National Observer Program, is scheduled for completion in 2009. Bycatch[2] has become a central concern of fishing industries, resource managers, scientists, and the public, both nationally and globally. The National Bycatch Report will provide a benchmark for evaluation of the Agency's performance relative to bycatch monitoring and reduction.

The NMFS deploys more than 700 observers annually to collect biological and economic data for more than 40 fisheries nationwide. To carry out this work, observer programs utilize funding from the Federal government and the commercial fishing industry. In FY 2008, Federal commercial fisheries observer programs received funding totaling $53 million for observer coverage and program infrastructure. This report contains a summary of funding and activities for NMFS observer programs in FY 2008.

[1] The Federal fiscal year runs from 1 October to 30 September each year.
[2] Bycatch is defined as the discarded catch of living marine resources and the unobserved mortality due to encounters with fishing gear that occurs during the course of fisheries operations (Evaluating Bycatch: A National Approach to Standardized Bycatch Monitoring, 2004).

1. Introduction

Since 1972, observers have collected high quality data on commercial fishing activities in the U.S. Exclusive Economic Zone (EEZ) and on the high seas. The NMFS utilizes fishery observers to collect data from U.S. commercial fishing and processing vessels, as well as from some shore-side processing plants. Today, there are fisheries observer programs in all six NMFS fisheries management regions.

Regional Offices and Science Centers in each NMFS Region (Northeast, Southeast, Northwest, Southwest, Alaska, and Pacific Islands) are responsible for administering observer programs in their area. Each observer program is authorized by one or more of the following Federal mandates: the Magnuson-Stevens Act (MSA), the Marine Mammal Protection Act (MMPA), and the Endangered Species Act (ESA).

Under the MSA, Fisheries Management Plans (FMPs) are required for each Federal fishery that requires conservation and management. The MSA provides Fishery Management Councils and the Secretary of Commerce with the authority to require that "one or more observers be carried on board a vessel of the United States engaged in fishing for species that are subject to the plan, for the purpose of collecting data necessary for the conservation and management of the fishery" (16 U.S.C. §1853 (b)(8)).

The MMPA also authorizes the placement of observers on board vessels engaged in commercial fishing operations which frequently take[3] marine mammals (16 U.S.C. §1383(e)). The NMFS uses observer data to quantify the impacts of fishing activities on marine mammal populations and to identify bycatch reduction measures.

In FY 2007, the NMFS Office of Protected Resources finalized a rule under the ESA that provides NMFS with the authority to place fisheries observers aboard vessels in state and Federal fisheries operating in the territorial seas or EEZ where sea turtle interactions may occur. Observers will help determine whether existing measures to reduce sea turtle bycatch are working or whether new or additional measures are needed. With this information, NMFS will be better positioned to address sea turtle bycatch problems. The first Annual Determination (AD) of fisheries to be observed under this rule is expected to be published in 2010.

Observer programs may be recommended for Federal fisheries as part of a Section 7 biological opinion. Section 7 of the ESA prohibits Federal agencies from carrying out programs (such as authorizing fishery operations) that jeopardize the continued existence of threatened and endangered species.

On a global scale, international agreements (such as the FAO Code of Conduct for Responsible Fisheries) identify the agency's stewardship role in leading collaborative efforts to conserve and protect marine resources. International provisions in the MSA also strengthened the U.S. commitment to monitoring and reducing bycatch. These

[3] "Take" of a marine mammal is defined as: "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal" (16 U.S.C. 1362).

provisions require the Secretary of State to "include statistically reliable monitoring carried out by the United States through observers or dedicated platforms provided by foreign nations, that are parties to the agreement, of all target and non target fish species, marine mammals, sea turtles, and seabirds entangled or killed by large-scale driftnets used by fishing vessels of foreign nations that are parties to the agreement;" and specify that "the taking of non-target fish species, marine mammals, sea turtles, seabirds, and endangered species or other species protected by international agreements to which the U.S. is a party is minimized and does not pose a threat to existing fisheries or the long-term health of living marine resources."

1.1 Program Structure

The NMFS' Office of Science and Technology coordinates observer programs at the national level through the National Observer Program (NOP). In addition to handling national program administration, budgeting, and planning, the NOP works with the regional observer programs to develop national policy and observer data quality standards. The NOP also provides regional observer programs with a forum to increase communication. Representatives from all regional programs and most NMFS offices participate in the National Observer Program Advisory Team (NOPAT), which serves as an advisory board to the NOP. The NMFS Science Board (composed of the six NMFS Science Center directors and the director of the Office of Science and Technology, who serves as the Board's chair) reviews NOPAT recommendations, with final decisions made by the Director of the Office of Science and Technology, Chief Science Advisor, and Assistant Administrator for Fisheries, when necessary.

Regional programs are responsible for the day-to-day operation of fishery observer programs. Program scientists determine the appropriate sampling protocols and necessary observer coverage levels for each fishery. In general, regional programs work with private contracting companies to recruit and deploy observers. In some cases, the fishing industry contracts directly with a private contracting company to provide observer coverage. The North Pacific Groundfish Observer Program, for example, is funded primarily by fishing industry members (industry pays for observer's salaries, travel costs, and insurance). The NMFS Alaska Fisheries Science Center administers this program and receives the data for near real-time management of the groundfish fishery. These data are also made available by the program to industry members. Regardless of an observer program's funding structure, all new observers are provided with training by NMFS in species identification, sampling methods, and safety. Following a fishing trip, observers are debriefed, and the trip's data are quality checked before being entered into a database system and made available to regional fisheries biologists.

1.2 Use of Observer Data in Fisheries Management

Fisheries observers are trained biological technicians who collect data to support a wide range of conservation and management activities. The information compiled by observer programs supports the management and conservation of fisheries, protected resources, and ecosystems throughout the U.S. Observer data are also increasingly relied upon to monitor compliance with fisheries regulations. Information collected by fisheries

observers is used for a wide range of assessment and monitoring purposes, including the following examples.

- In some fisheries, the amount of a specific fish species that can be caught is specified by a "total allowable catch" (or TAC) level. Observer data are used to project total catches for these species and to monitor the level of fishing activity so that the TAC is not exceeded.

- For each managed fisheries/stocks, the 2007 reauthorization of the MSA requires development of an Annual Act Limit (ACL). The ACL is an annual numerical catch target that is set below the overfishing fishing level to ensure that overfishing will not occur. Setting an ACL for a stock requires scientific data on catch and bycatch.

- For many fisheries, estimates of fishing mortality and/or protected species interaction rates based on observer data are used for monitoring fishery performance and developing stock assessments.

- For rebuilding species, such as New England groundfish, preseason target catch numbers are provided to the management team. When the fishing season ends, observer data are evaluated to determine total mortality and correspondingly adjust the next season's targets.

- The MMPA requires that levels of fishery-related serious injury and mortalities be monitored and reported in the annual stock assessment reports and used in assigning commercial fisheries to appropriate categories in the annual MMPA List of Fisheries (16 U.S.C. 1387).

- Observer data on marine mammal bycatch are used by NMFS Take Reduction Teams when developing Federally-mandated Take Reduction Plans (TRPs) to assist in the recovery or prevent the depletion of certain strategic marine mammal stocks.

1.3 Funding History for Observer Programs

Although NMFS has utilized fishery observers to collect data since 1972, the Office of Science and Technology's NOP was not established until 1999. Prior to 1998, the majority of funding for regional observer programs was provided through indirect sources, such as Congressional allocations supporting fisheries management and protected resource legislation. Beginning in the late 1990s, industry funds were also used to support observer programs; the amount of industry funding has remained relatively stable.

In 1999, the first Congressional funds were directly appropriated for observer program budget lines, and the NOP was established to coordinate U.S. observer program activities. In general, funding for observer programs has increased over time. The number of fisheries observed has increased as programs obtain the means to develop observer

programs for new or experimental fisheries while maintaining established monitoring programs (Fig. 1).

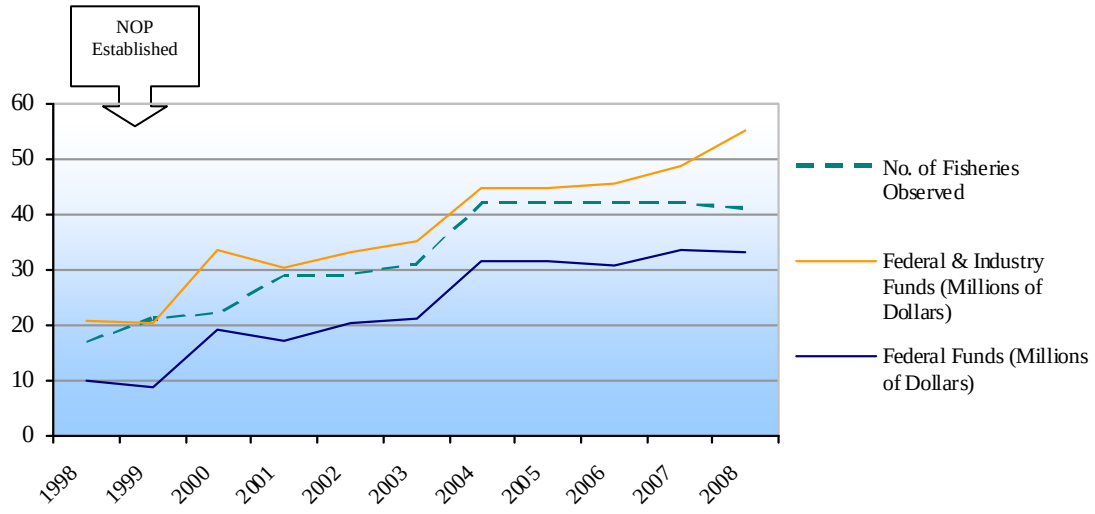


Figure 1. Overview of U.S observer program funding and observed fisheries from 1998-2008 (not adjusted for inflation).

2. FY 2008 Budget Summary

In FY 2008, total funding from all sources for Federal fisheries observer programs was approximately $53.1M for observer coverage and program infrastructure. This funding enabled regional observer programs to provide coverage for more than 70,000 days at sea in 41 fisheries (Appendix A provides a detailed breakdown of funding and coverage levels by program). The industry-provided portion of total funding in FY 2008 was $15.7M. Industry funds were used to support observer coverage of fishing vessels in the Northwest at-sea hake, Atlantic sea scallop, and Alaska groundfish fisheries.

The majority of funding for observer programs comes from Congressional appropriations. In FY 2008, Congressional funding for observer programs totaled $33.2M. All regions have at least one dedicated budget line supporting observer program activities except the Southwest, which has never had a dedicated budget line for observer programs. Although Alaska does have a Congressional line item, this is strictly for the program that covers Federal fisheries (the North Pacific Groundfish Observer Program). There is no Congressional line item for the Alaska Marine Mammal Observer Program, which observes state fisheries. Funding is also available from two National budget lines, which are equally allocated to regional programs. In addition to direct budget lines, observer programs may receive funding from Federal appropriations supporting programs under the ESA, MMPA, and the MSA.

It is important to note that an observer program may be funded by more than one budget line, and a single budget line may support observer program activities in more than one region. Many observer programs are funded through a combination of funding sources in order to maintain sufficient observer coverage and infrastructure.

3. FY 2008 National Observer Program Activities

The NOP is supported by a permanent allocation from the Reducing Bycatch budget line to provide staff support and program infrastructure. Funding for specific activities of the NOP was also provided through the MMPA, Sustainable Fisheries, and Atlantic Coast Observers Congressional budget lines (Appendix A provides details). The following section highlights some of the NOP's activities in FY 2008.

3.1 National Highlights

Amendment to the Observer Health and Safety Regulations

The final rule (published in the Federal Register on November 1, 2007) clarifies prohibited actions regarding observers, reinforces that an observer may not be deployed or stay aboard an unsafe vessel, clarifies when a fishing vessel is inadequate for observer deployment and how an owner or operator can resolve concerns, improves communications between observer programs and fishing vessel owners and operators, and provides for an alternate safety equipment examination of certain small fishing vessels. The full text of the proposed rule is available on the NOP homepage: http://www.st.nmfs.noaa.gov/st4/nop/index.html.

MMPA Serious Injury Guidelines

Under the MMPA, NMFS must include estimates of serious injury in marine mammal stock assessments. The MMPA also directs commercial fisheries to reduce mortality and serious injury of marine mammals to "insignificant levels approaching zero." Photos and descriptions gathered by fisheries observers from incidentally caught marine mammals are an important component of the serious injury analysis. In 2008, the NMFS Office of Protected Resources issued a technical report on "Differentiating Serious and Non-Serious Injury of Marine Mammals." This report included a background discussion of the types of observer data that are collected, collection limitations and differences between observer programs. This report is available online at: http://www.nmfs.noaa.gov/pr/pdfs/interactions/serious_injury_techmemo2008.pdf

3.2 International Work

2009 International Fisheries Observer and Monitoring Conference

Planning continued for the 2009 Conference, which will be held July 20 - 24 in Portland, Maine. As the host of this biennial conference, NMFS has worked to ensure representation from a variety of countries and perspectives on both the Steering Committee and in the panel sessions. Twelve panel sessions cover a range of topics from data use to electronic monitoring to environmental and industry perspectives. Additionally, a pre-conference workshop focusing on data extrapolation is planned. More information on the Conference is available on the conference website: www.ifomc.com.

Fisheries Observer Training Program in West Africa

In 2007, the NMFS was approached by the U.S. Navy's African Partnership Station to collaborate in improving maritime safety, security, and resource stewardship. As part of these efforts NMFS worked with the Ministry of Fisheries in Ghana to offer a training program in Ghana for 30 fishery observers. The program, which began in March 2008, trained observers to improve the ways they collect data for scientific research and monitoring of fish stocks and bycatch within domestic and international fisheries. Training was held aboard the U.S. Navy vessel, *HSV Swift*, which visited many of the West African nations. The NMFS also provided Ghana with safety and scientific equipment for use by observers while performing their duties. In 2009, NMFS hopes to work with the nation of Senegal to offer a similar training program to that nation's fishery observers.

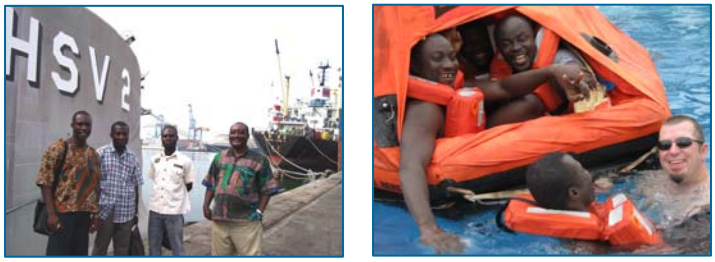


Photo credits: Teresa Turk (NOP).

Left photo: students/staff from the Ministry of Fisheries, Ghana in front of the U.S. Navy *HSV Swift* in Tema, Ghana. Right photo: Students practicing entering a life raft during a safety training session with NOAA staff member John LaFargue.

Final Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) Observer Rule

Antarctic iceberg - CCAMLR Antarctica survey cruise in 2003, photo by Teresa Turk

This final rule, published at 50 CFR part 300, outlines the requirements for U.S. vessels harvesting Antarctic Living Marine Resources (AMLR) in the Convention area. These are the first domestic observer requirements NMFS has implemented for an international convention/regional fisheries management organization.

In addition to requiring VMS for all U.S. vessels harvesting AMLR and the use of seal excluder devices for U.S. vessels harvesting krill with trawl gear in the CCAMLR area, this final rule expands the list of requirements and prohibitions regarding scientific observers and clarifies the duties and responsibilities of observers on the vessels and of the vessel hosting the observers.

Examples include:

- Compliance with Observer Health & Safety Regulations;

- Prohibition of conflict of interest;
- Mandatory sampling stations;
- No direct payment of observers by vessels; and
- NMFS approved observer providers must be used.

Although there are currently no U.S. vessels fishing these waters, these regulations will be in place should U.S. vessels participate in AMLR fisheries again in the future.

Link to CCAMLR Final Rule:
http://www.nmfs.noaa.gov/sfa/domes_fish/FRNotices/CCAMLR_FR_8-23-07.pdf

3.3 Joint Regional and National Highlight: the National Bycatch Report

The National Bycatch Report will quantify regional and national bycatch levels (using primarily 2005 data) for fish, marine mammals, sea turtles, and seabirds in all Federally-managed fisheries, including measures of uncertainty. These estimates will provide a basis for determining future monitoring and data collection goals. The initial version of the report will compile estimates of bycatch for Federal commercial marine fisheries. Regional teams used observer data, along with self-reported and some fishery independent data, to develop bycatch estimates for inclusion in the report.

Development of the report continued in FY 2008, with a focus on finalizing and reviewing text. Interest in the report remains high, and it is anticipated that the report will be published in early 2010.

4. Regional Observer Program Activities

Observer programs are administered by NMFS Regional Offices and Science Centers around the country (Fig. 2). The funding received by each program is used to administer existing programs as well as to develop observer programs for new or experimental fisheries and to perform outreach to industry members and the public. Research priorities and observer coverage levels are determined by the regional programs. Coverage levels are influenced by available funding, the number of active participants in the fishery, fishing conditions, and program goals. For some fisheries, certain mandated coverage or FMP goals must be met. The following section summarizes FY 2008 achievements of NMFS regional observer programs.

Visit the
National Observer Program at:
www.st.nmfs.gov/st4/nop/index.html
for an interactive map of U.S. fisheries observer programs.

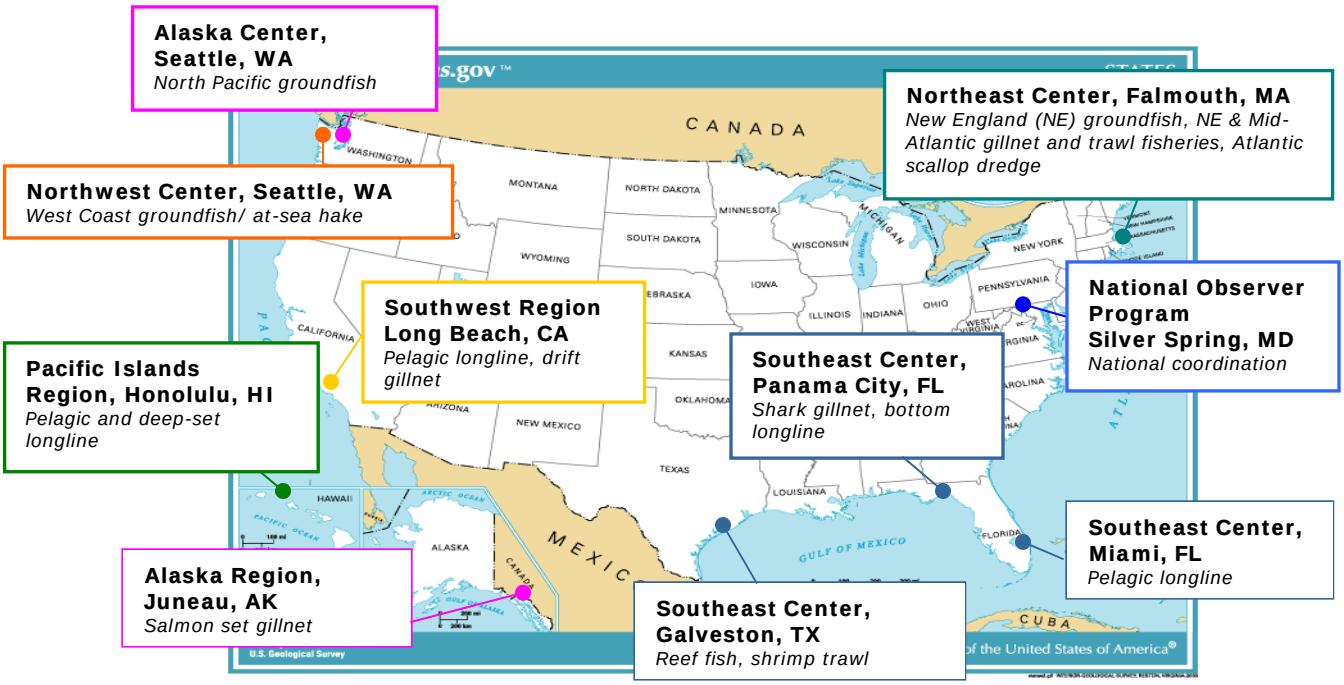


Figure 2. U.S. commercial fishery observer programs (2008) are located in each of six NMFS Regions (Northeast, Southeast, Alaska, Northwest, Southwest, and Pacific Islands), in either a NMFS Regional Office ("Region") or Science Center ("Center").

4.1 Alaska

Alaska fisheries are covered by two primary observer programs: the Alaska Marine Mammal Observer Program (AMMOP), which provides observers for salmon set gillnet fisheries, and the North Pacific Groundfish Observer Program (NPGOP), which covers Bering Sea/Aleutian Islands (BSAI) and Gulf of Alaska groundfish trawl, longline, and pot fisheries.

The primary achievement of the NPGOP in 2008 was the completion of over 39,000 observer coverage days across the groundfish fisheries in Alaska. This represented a considerable effort on the part of NMFS, industry, observer providers, and the observers. It was also a substantial increase in coverage days in the Alaskan fleet. The increased coverage was a result of the implementation of Amendment 80 to the BSAI FMP. Data provided by the observers enabled the tracking of over 1,500 separate management quotas for Alaska groundfish. The program provides real-time catch estimation for North Pacific groundfish fisheries and is supported primarily through industry funding. The NPGOP, which observes fisheries under the Groundfish of the Gulf of Alaska and Groundfish of the BSAI Management Area FMP's, received approximately $18,396,000 in funding for FY 2008, including approximately $13,000,000 in industry funds (Appendix A gives details).

Of the fourteen MMPA Category II[4] fisheries in Alaska, eight have been observed by the AMMOP since its establishment in 1990, including the Prince William Sound drift and set gillnet fisheries (1990-91), the Alaska Peninsula drift gillnet fishery (1990), the Cook Inlet drift and set gillnet fisheries (1999-2000), the Kodiak set gillnet fishery (2002 and 2005), and the Yakutat set gillnet fishery (2007 and 2008). Data collected during these rotational observation periods are used in marine mammal stock assessments to estimate annual serious injury and mortality and to categorize fisheries in the annual MMPA List of Fisheries. In FY 2008, the AMMOP met and exceeded its target sample of 300 permitted fishing vessels in the Yakutat gillnet fishery. A total of $863K supported these observations over three years: $300K in FY 2006, $375K in FY 2007, and $188K in FY 2008

<u>FY 2008 Program Highlights: NPGOP</u>

Electronic Monitoring (EM) Workshop

In June 2008, the Alaska Fisheries Science Center hosted a workshop to evaluate current EM technology, both nationally and internationally, with a focus on potential future usage in the North Pacific. The workshop was developed by NMFS, the North Pacific Fishery Management Council, and the North Pacific Research Board. A background paper on at-sea observing with EM technology was developed by Archipelago Marine Research, Ltd. Participants from a variety of backgrounds, including the fishing industry, observer program, researchers, and data users attended. Discussion revolved around industry participation, integrating existing observer programs with EM technologies,

[4] An MMPA Category II fishery has occasional incidental mortality and serious injury of marine mammals.

enforcement and policy concerns, data standards, and next steps. A workshop summary is available at: http://www.fakr.noaa.gov/scales/elecmonworkshop_proceedings2008.pdf.

Sampling Program Redesign[5]

In 2008, the North Pacific Groundfish Observer Program (NPGOP) implemented several long-awaited sampling and database changes that had been recommended in various independent reviews as well as by in-house staff. These changes fundamentally altered the way observers collect and record their data. Modifications were made to both the methods used to collect data at sea and to the Alaska Fisheries Science Center database that houses the observer data. One of the most substantive changes is that observers are now asked to collect and individually record at least three samples for species composition from each sampled haul or fishing event. Previously, samples were pooled together. These changes allow NMFS to better understand the statistical properties of the data and the estimates derived from that data. In particular the data are now being captured in a way that allows NMFS to assess within-haul variance.

An observer takes measurements aboard a North Pacific groundfish vessel. *Photo credit: NMFS Alaska Fisheries Science Center.*

These improvements required changes to data entry software and re-installation of the software on over 130 vessels. All experienced observers were re-trained on the new protocols. Given the increased demand for observers in the new fishing year, additional training classes were held for new observers. While orchestrating the sampling and database design changes was demanding on both staff and observers, the results improve the quality of data collected by the program.

FY 2008 Program Highlights: AMMOP

Yakutat Set Gillnet Fishery Observations

The MMPA Category II Yakutat set gillnet fishery was observed during the 2008 fishing

[5]Excerpted summary from "Fisheries Monitoring and Analysis Division Redesigns Observer Sampling, by Jennifer Cahalan and Jennifer Ferdinand. Available at: http://www.afsc.noaa.gov/Quarterly/jfm2008/jfm08feat.pdf

season, the second of an anticipated two year study. The marine mammal stock of particular interest was the Gulf of Alaska harbor seal stock, which has seen declines in a number of areas of the Gulf of Alaska. This stock is also harvested for subsistence purposes by Alaska Native hunters. Subsistence use is managed under a co-management Agreement to which NMFS is a partner with the Alaska Native Harbor Seal Commission under Section 119 of the MMPA. The local tribal government also has concerns regarding local declines of harbor seals. Additionally, harbor porpoise are known to be caught in gillnets and are known to be present in the area of operation for this fishery. Observations of 336 permit samples were obtained for the 2008 season. Analysis for bycatch estimation is currently underway.

Harbor Seal ***(Phoca vitulina)***
Photo: NOAA

4.2. Northwest

In FY 2008, the Northwest region observer programs received $5,551,443 in funding, including approximately $390,000 in industry funding to support monitoring of the at-sea hake fishery (Appendix A gives details). A total of 4,596 sea days was observed in Northwest Regional fisheries. This includes a total of 160 days of electronic monitoring (EM) under a new pilot project in the West Coast groundfish small fixed-gear fishery. Other fisheries observed in FY 2008 included the West Coast limited entry groundfish fisheries (trawl and fixed gear) and several state-managed and open-access fisheries. Yearly observer data reports and summary analyses for many of these fisheries are available on the Northwest Fisheries Science Center's webpage: www.nwfsc.noaa.gov.

FY 2008 Program Highlights

Observer Data Use in In-Season Management[6]

Observer data from the Northwest region observer program are used for in-season management decisions by the Pacific Fishery Management Council. Recent data indicated bycatch was occurring at higher rates for several overfished species than had previously been assumed. As a result, catch limits for several overfished stocks were reduced. This will allow fishermen to target populations of health stocks, while allowing overfished stocks to remain within their optimum yields. The observer data also indicated that discards of one species, the chilipeppper rockfish, are increasing due to small trip limits on the species. An increase in catch limits for this species was proposed within the area of concern, so that fishermen could continue to harvest healthy stocks while reducing discards.

Electronic Monitoring (EM) Pilot Project

The West Coast Groundfish Observer Program (WCGOP) collaborated with The Nature Conservancy and Archipelago Marine Research, Inc. to test EM technology on small fixed-gear vessels operating under an exempted fishing permit (EFP). The project was designed to test the efficacy of EM technology on small fixed-gear vessels as a way to lower the costs of monitoring in areas with community-based fishing associations. The project included three vessels, each with EM equipment and human observers on-board. A total of 25 trips and 155 hauls was observed. Data from the EM system were compared with data collected by onboard observers. A report detailing the comparison of EM and observer data was submitted to the WCGOP in February 2009.

[6] Pacific Council News – Winter 2007, Vol 31, No. 4

Critical Habitat Proposed for Green Sturgeon

In September 2008, NMFS issued a proposed rule to designate critical habitat for the threatened Southern distinct population segment of North American green sturgeon (Southern DPS of green sturgeon) under the ESA. This population of green sturgeon is declining for several reasons, primarily the loss of spawning habitat area, but also because of other habitat threats and bycatch in marine fisheries. Areas proposed for critical habitat were identified in part by the observer bycatch data demonstrating presence of green sturgeon in different areas. In addition, observed bycatch only occurred in the bottom trawl fishery, indicating that this species is particularly vulnerable to activities associated with the benthos. By identifying these critical habitat areas and restricting activities occurring within critical habitat to protect the sturgeon population, NMFS hopes to prevent the Southern DPS of green sturgeon from becoming endangered. A final rule is anticipated for release in summer 2009.

Green Sturgeon
(*Acipenser medirostris)*
Photo: Toz Soto,
Karuk Tribe Fisheries Dept.

4.2. Southwest

The Southwest Region receives all of its funding for observer programs through the National Observer Program and Reducing Bycatch budget lines. In FY 2008 the Southwest Region observer program received approximately $619,000 for its observer programs (Appendix A provides details). Funding was used to provide observer coverage for two fisheries along the Pacific Coast, the California/Oregon drift gillnet fishery (MMPA Category I[7]), and the California pelagic longline fishery (MMPA Category II). A total of 329 days at sea was observed in these fisheries.

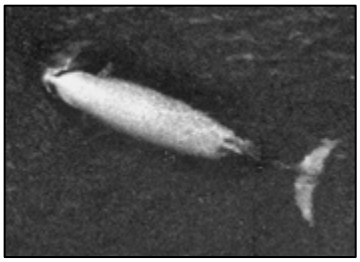
FY 2008 Program Highlights

Beaked Whale Bycatch Reduced to Zero in the California/Oregon Drift Gillnet Fishery

Acoustic pingers became mandatory in the California/Oregon drift gillnet fishery in 1998, after an experiment conducted by the Southwest Region observer program showed a significant decrease in cetacean entanglement rates in sets that had pingers attached. Beaked whales were observed caught in this fishery prior to the pinger requirements, and zero have been observed caught since pingers became mandatory. Annual observer coverage is between 14 percent and 21 percent.

The difference in beaked whale entanglement rates with and without pingers is so large that it cannot be explained as a sampling artifact. In contrast, bycatch rates of all cetaceans (mostly dolphins) decreased by only 50 percent over the same period. Continued bycatch of other cetacean species in the absence of beaked whale bycatch suggests that beaked whales may be among the most sensitive of the cetacean taxa to sounds within the frequency range produced by pingers.

For more information on this research, see:



Carretta, J. V., J. Barlow and L. Enriquez. 2008. Acoustic pingers eliminate beaked whale bycatch in a gill net fishery. Marine Mammal Science, 24(4): 956–961.

Cuvier's beaked whale
(Ziphius cavirostris)
Photo: NMFS Southwest Fisheries Science Center

[7] A MMPA Category I fishery is a commercial fishery that has frequent incidental mortality and serious injury of marine mammals.

4.4 Pacific Islands

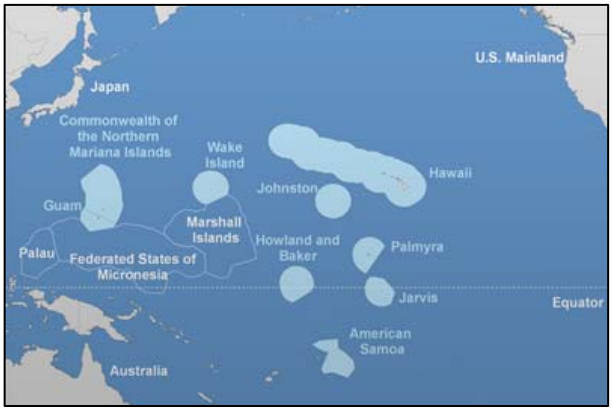
The $5,724,000 in funding received in FY 2008 for the Pacific Islands fishery observer programs supported coverage for three fisheries: the Hawaii pelagic longline tuna fishery (deep-set), the Hawaii pelagic longline swordfish fishery (shallow-set) and the American Samoa pelagic longline fishery. A total of 9,260 days was observed. A portion of the funding was also used to upgrade the Pacific Islands observer data system and to integrate this system with the longline data system (Appendix A provides details).

All of the Pacific Islands observer programs focus on monitoring interactions between commercial fisheries and sea turtles (e.g. loggerhead, leatherback, and green sea turtles), sea birds, and marine mammals. Data and specimens collected by observers are provided to the Pacific Islands Fisheries Science Center after careful review by observer program staff. These data are used by Center biologists for stock assessment evaluation and to calculate official bycatch estimates for marine mammals and sea turtles which are provided in quarterly reports. In FY 2008 Pacific Islands observer programs covered 100 percent of all vessels fishing in the swordfish fishery, as required by regulation. In addition, the program was able to provide 12 percent coverage in the American Samoa longline fishery.

Reports from the Pacific Islands Region Observer Program are available online at: http://www.fpir.noaa.gov/OBS/obs_qrtrly_annual_rprts.html.

FY 2008 Program Highlights

Capacity Building in the Western Pacific



Pacific Islands observer program staff provided technical support to Papua New Guinea (PNG) during a 2008 PNG observer training program. The program developed and introduced a new training module, which included training on sea turtle identification and handling as well as demonstrations of different types of sea turtle de-hooking devices. The new module included active trainee participation, a new and effective approach. Some portions of the technical explanations were provided in the native language of participants, which provided participants with a better understanding of critical items in the training. This technique has been used successfully by the Pacific Islands observer program staff conducting trainings in Palau, the Marshall Islands, and the Solomon Islands.

Pacific Islands observer program staff also participated in the Western and Central Pacific Fishing Commission ("Commission") Second Intercessional Working Group. This meeting focused on the needs of the Commission's regional observer program and how the sub-regional programs should interact with the broader Commission Program.

4.5 Northeast

In FY 2008, the Northeast Fisheries Observer Program (NEFOP) received a total of approximately $11,780,000 in program funding. In addition, $2,280,200 was paid by the fishing industry to observe the Atlantic sea scallop fishery. Over 13,000 sea days were observed through six monitoring programs: New England groundfish trawl and sink gillnet fisheries; Mid-Atlantic coastal gillnet fisheries; New England and Mid-Atlantic small mesh trawl fisheries; Mid-Atlantic *Illex* squid trawl; New England and Mid-Atlantic large mesh trawl fisheries; and the Atlantic sea scallop dredge fishery (Appendix A provides details). The New England Fishery Management Council's Multispecies FMP includes mandatory observer coverage requirements for several fisheries. The NEFOP provides this coverage in addition to collecting data on gear performance and characteristics and monitoring experimental fisheries.

In FY 2008, the NEFOP also worked to implement the Standardized Bycatch Reporting Methodology (SBRM), which was an omnibus amendment in the Northeast and mid-Atlantic. The SBRM provides a structured approach for evaluating the effectiveness of the allocation of fisheries observer effort across multiple fisheries to monitor a large number of species. Precision and accuracy are addressed in analyses conducted using observer data; these analyses are also used to determine the appropriateness of the data for use in stock assessments and by fishery managers. Additional information is available at www.nefsc.noaa.gov/femad/fsb/.

FY 2008 Program Highlights

Sector Management in New England

Interest in alternative management strategies that provide groups of fishermen with "ownership" of portion of a fishery resource (such as catch-share programs or Individual Fishing Quotas- IFQs) is growing. In 2008 the New England Fisheries Management Council worked with NMFS and the NEFOP to evaluate the potential of sector-based management in the Northeast multispecies fishery. Sectors are harvesting cooperatives (groups of fishermen working together), which function as an effort control system. Monitoring programs were identified as a critical component for success of the sector program. The Gulf of Maine Research Institute (www.gmri.org) contracted monitoring program experts to assess the feasibility of varying types of monitoring programs, ranging from video monitoring systems to landings reports to at-sea observers. As the sector-based management initiative moves forward, these options will be evaluated and refined.

Reducing Scallop Fishery Interactions with Endangered Sea Turtles

Information collected by Atlantic Sea Scallop fishery observers was used in evaluating the effectiveness scallop dredge gear modifications designed to protect endangered sea turtles. The final rule implementing the required chain mat modification was published in April 2008. NMFS observer data were critical in both identifying the need for a bycatch reduction device, and in evaluating its performance. Observer documentation of how the chain mat performed in the water, as well as the condition of any sea turtles

incidentally caught, was cited in the rulemaking. These details were especially important in revealing that non-compliant chain mats were not effective in reducing sea turtle interactions. Observer data will continue to play an important role as NMFS monitors the effectiveness of the new modifications and evaluates the impacts other parts of the dredge gear may have on interactions with sea turtles.

River herring bycatch in the Atlantic Herring Fishery

River herring comprise two separate species, blueback herring and alewife. These species, which were recently listed as species of concern by NMFS, overlap spatially with the habitat of the economically important Atlantic herring fishery. The level at which bycatch of river herring occurs in the Atlantic herring fishery is unknown. Many stakeholders feel that this bycatch could be contributing to the decline of river herring populations, which are also a valuable resource. The NEFOP is working in conjunction with the New England Fisheries Management Council and the states to monitor herring fisheries, and continues with the development of Herring Amendment 5. The objectives of Amendment 5 are (among others): to implement measures to improve the long-term monitoring of catch (landings and bycatch) in the herring fishery and to implement management measures to address bycatch in the Atlantic herring fishery.

Atlantic herring (*Clupea harengus*).
Photo credit: Amy Van Atten,
Northeast Fisheries Science Center.

4.6. Southeast

In FY 2008 Southeast Regional observer programs were allocated $6,538,000. A total of 4,085 sea days was observed by the South Atlantic and Gulf of Mexico shrimp otter trawl; Atlantic, Gulf of Mexico, and Caribbean pelagic longline; and the Gulf of Mexico reef fish observer programs. In addition, a total of 228 sets was observed by the Southeast Atlantic and Gulf of Mexico directed large coastal shark bottom longline observer program, while 280 field days were monitored in the Southeast Shark Gillnet fishery (Appendix A provides details).

FY 2008 Program Highlights

Atlantic Pelagic Longline Take Reduction Team: Implementation of New Regulations

The Atlantic Pelagic Longline Take Reduction Team was convened in 2005 to address serious injury and incidental mortality of short- and long-finned pilot whales and common dolphins in the Atlantic Pelagic Longline fishery. A series of meetings was held to review abundance estimates, serious injury and mortality estimates of pilot whales and Risso's dolphins, fishery characterization and regulatory structure, and analyses of observer, logbook, and other fisheries data. In June 2008, a proposed rule to implement the Atlantic Pelagic Longline Take Reduction Plan was published. The plan contains observer requirements for certain areas, and observer data will be critical monitoring the plan's success in reducing bycatch of strategic marine mammal populations[8] to insignificant levels approaching zero, as required under the MMPA. The final rule implementing this plan is undergoing review.

After being tagged, a bluefin tuna is returned to the sea. Photo credit: NMFS.

Expanded Observer Program Coverage to Study Bluefin Tuna Bycatch

Bluefin tuna are valuable and highly exploited in commercial fisheries. The Gulf of Mexico is considered the primary spawning grounds for the western stock of Atlantic bluefin tuna, and most spawning is believed to occur between April and June. An eastern stock of Atlantic bluefin tuna spawns in the Mediterranean Sea. Scientific evidence suggests mixing between the two stocks, but the degree to which

[8] A "strategic stock" is defined under the MMPA as a stock which for which the level of direct human-caused mortality exceeds a predetermined threshold; which, based on the best available scientific information, is declining and is likely to be listed as a threatened species under the ESA within the foreseeable future; or which is listed as a threatened or endangered species under the ESA, or is designated as depleted under the MMPA.

mixing occurs is unknown. Beginning in FY 2007, NMFS implemented emergency observer coverage (March-June) of Atlantic swordfish and tuna fisheries to collect biological data on Atlantic bluefin tuna bycatch. In 2008, the Pelagic Observer Program (POP) again provided enhanced coverage (March-June) for vessels participating in this fishery, as well as lower levels of coverage in January and February. The data collected by observers will help scientists better understand bluefin tuna stock structure, biology, and behavior, and will assist in the rebuilding of this valuable resource. The increase in observer coverage also supplements scientific research on the bycatch of protected and prohibited species in the pelagic longline fishery, and shows the effectiveness of circle hooks in reducing bycatch. NOAA Technical Memorandum NMFS-SEFSC-588 documents the results of this research, and is available online at: www.nmfs.noaa.gov/sfa/hms/Tuna/2009/POP_GOMEX_BFT_588.pdf

White Marlin Not Threatened or Endangered

In 2007, NMFS conducted a status review of the Atlantic white marlin to determine whether the stock should be listed under the ESA. Information from a variety of sources, including incidental catch information from the Pelagic Observer Program (it is illegal to land white marlin commercially in the U.S), was used in the determination. The NMFS concluded that the species did not warrant listing as threatened or endangered, and may have actually increased in population size since the last evaluation in 2002. However, concerns about the impact of illegal, unregulated, and unreported fishing on this stock still remain. Continued data collection by observer programs will be important to ensuring the population's success.

Sea turtle interactions in the Gulf of Mexico Bottom Longline Fishery

Results of a recent Southeast Fisheries Science Center sea turtle assessment based on data collected by the Galveston Laboratory reef fish observer program (including a voluntary electronic monitoring pilot program) and the Panama City Laboratory shark bottom longline observer program indicate the number of loggerhead takes authorized in the 2005 biological opinion on the Gulf of Mexico bottom longline reef fish fishery has been exceeded. Measures are being considered to reduce bycatch of sea turtles in this fishery that include, including gear and bait modifications, area and seasonal closures, electronic monitoring, and increased observer coverage.

New Observer Program to Monitor Sandbar Shark Research Fishery

Recent amendments to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan, based on updated stock assessments, have eliminated the major directed shark fishery in the U.S. Atlantic (NMFS, 2007). The amendments implement a shark research fishery, which allows NMFS to select a limited number of commercial shark vessels on an annual basis to collect life history data and catch data for future stock assessments. Furthermore, the revised measures drastically reduce quotas and retention limits, and modify the authorized species in commercial shark fisheries. Specifically, commercial shark fishers not participating in the research fishery are no longer allowed to land sandbar sharks, *Carcharhinus plumbeus*, which have been the main target species for most fishermen. In June 2008, NMFS announced its request for applications for the

shark research fishery from commercial shark fishers with a directed or incidental permit. Commercial shark fishers submitted applications to the Highly Migratory Species (HMS) Management Division. The HMS Management Division provided a list of qualified applicants to the Panama City Laboratory and based on the temporal and spatial needs of the research objectives, the availability of qualified applicants, and the available quota, qualified applicants were selected for observer coverage. These vessels carried observers on 100 percent of trips. Data collected is used to aid in monitoring of the shark quota and providing biological information for the next stock assessment. NOAA Technical Memorandum NMFS-SEFSC-586 documents the results of this research, and is available online at: www.pclab.noaa.gov/content/60_Observer_Programs/Observer_Programs.php.

Sandbar shark.
Photo credit: NOAA

5. Looking Ahead: NMFS Observer Programs 2009 Goals

In FY 2009 NMFS observer programs will continue to provide the high-quality biological information on fish, marine mammals, sea turtles, and seabird populations, which will be relied upon by NMFS to manage the nation's living marine resources. National and regional collaboration on priorities such as implementation of the new ESA observer program, observer health and safety, and interpreting and incorporating MSA changes will remain high priorities. Observer programs will also continue to improve the integrity and availability of observer program data through improvements to electronic monitoring, publication of a National Bycatch Report, and capacity building projects in the Pacific and West Africa. With the IOFMC[9] conference to look forward to, 2009 will be a busy year on both the national and international fronts.

More information on NMFS observer programs can be found on the National Observer Program website: www.st.nmfs.gov/st4/nop/index.html.

Alaskan pollock harvest.
Photo credit: NMFS

Literature cited:

NMFS (National Marine Fisheries Service). 2004. Evaluating bycatch: a national approach to standardized bycatch monitoring programs. U.S. Dep. Commer., NOAA Tech Memo. NMFS-F/SPO-66, 108 p. On-line version, http://spo.nmfs.noaa.gov/tm.

[9] Visit the IFOMC 2009's website at: http://ifomc.com/ to learn more.

APPENDIX A: NMFS Fisheries Observer Programs Funded in FY 2008.

Regional and National observer program activities are funded through a number of dedicated Congressional budget lines (Table A1). The Reducing Bycatch line is split between the Office of Science and Technology for observer activities and the Office of Sustainable Fisheries for bycatch technology research. The Office of Science and Technology portion of the Reducing Bycatch line, along with the National Observer Program line, are equally allocated to the regional programs and used for observer coverage, program infrastructure, and NBR development. The National Observer program retains some funds from these lines to support national program activities. Other Federal funds may be used to support observer program activities, including monies appropriated by Congress to support the MMPA, MSA, etc.

Table A1. Congressional budget lines supporting observer programs, FY 2008.

A portion is allocated to regional programs (See Table A2)

Budget Line Item	Line Total
National Observer Program	$3,723,000
Reducing Bycatch	$1,693,849
West Coast Observers	$4,989,000
North Pacific Marine Resource Observers	$4,802,000
Hawaii Longline Observer Program	$3,975,000
New England Groundfish Court-Ordered Observers	$8,516,000
East Coast Observers	$347,000
Atlantic Coast Observers	$3,353,000
South Atlantic/ Gulf of Mexico Shrimp Observers	$1,786,000
Other Federal Funds	$4,256,900
Total Congressional Funding (all sources)	$33,185,325

Table A2. Detailed National and Regional observer program funding (FY 2008).

Fisheries Observed	Fleet Size	Authority to Place Observers	Season of Operation	Funding Amount	Funding Source	Program Duration	Target % Coverage	Actual % Coverage	Target Sea Days	Actual Sea Days	Number of Observers
PACIFIC OCEAN											
North Pacific Groundfish Observer Program, Alaska Fisheries Science Center, 7600 Sand Point Way NE, Seattle, WA 98115-0070											
Program Manager: Martin Loefflad, 206-526-4195, martin.loefflad@noaa.gov, website: http://www.afsc.noaa.gov/refm/observers/											
Bering Sea, Aleutian Islands and Gulf of Alaska Groundfish Trawl, Longline and Pot Fisheries	303 vessels / 24 shore plants	MSFCMA (50 CFR 679.50)	year-round	$378,391	National Observer Program	1973 - present	100% vessels >125 ft.	100% vessels >125 ft.	Defined by regulation (approx. 37,000)	39,000	464
				$392,070	Reducing Bycatch						
				$4,802,554	Obs/Trn-North Pacific Marine Resource Observers/ North Pacific Observer Program[1]						
				$15,201	Fisheries Management Program		30% vessels 60-124 ft.	30% vessels 60-124 ft.			
				$13,000,000	Industry Funding		30% or 100% shore plants	30% or 100% shore plants			
Data to assess the current actual coverage in the 30% fleet are not available, and compliance with the requirement has been an enforcement function. The North Pacific Groundfish Observer Program uses observer days rather than observer sea days, because the coverage regulations require observers to be stationed at shoreside plants as well as on vessels. [1]Portion of budget line used to support management activities											
Alaska Marine Mammal Observer Program, Alaska Regional Office, P. O. Box 21668, Juneau, AK 99802-1668											
Program Manager: Bridget Mansfield, 907-586-7642, bridget.mansfield@noaa.gov, website: http://www.fakr.noaa.gov/protectedresources/observers/mmop.htm											
AK Yakutat Salmon Set Gillnet Fishery	100 set net permits	MMPA Cat. II (50 CFR 229)	June - Sept	$183,779	National Observer Program	1999 - present	5%	7.6%	300 permits	336 permits	16
TOTAL ALASKA REGION OBSERVER PROGRAM FUNDING (CONGRESSIONAL): $5,771,995											
TOTAL ALASKA REGION OBSERVER PROGRAM FUNDING (INDUSTRY): $13,000,000											
TOTAL ALASKA REGION OBSERVER PROGRAM FUNDING (ALL SOURCES): $18,771,995											

Fisheries Observed	Fleet Size	Authority to Place Observers	Season of Operation	Funding Amount	Funding Source	Program Duration	Target % Coverage	Actual % Coverage	Target Sea Days	Actual Sea Days	Number of Observers
West Coast Groundfish Observer Program, Northwest Fisheries Science Center, 2725 Montlake Blvd East, Seattle, WA 98112-2097											
Program Manager: Janell Majewski, 206-860-3293, janell.majewski@noaa.gov website: http://www.nwfsc.noaa.gov/research/divisions/fram/observer/											
West Coast Groundfish Limited Entry Fleets (trawl and fixed gear)	179 trawl, 190 longline, 30 trap permits	MSFCMA (50 CFR 660)	year-round	$249,958	National Observer Program	2001 – present	10-20%	17-30%	1,900	2,247	43
				$4,989,006	Obs/Trn-West Coast Observers						
				$14,830	Reducing Bycatch						
State Managed and Open Access Fisheries (includes California halibut trawl, nearshore rockfish, pink shrimp, prawn and open access fixed gear fisheries)	approx. 1,000	MSFCMA (50 CFR 660)	year-round	Included in groundfish		2001 – present	<1 – 10%	<1 – 10%	500	603	included in groundfish
Electronic Monitoring Pilot Project – West Coast Groundfish small fixed-gear vessels	3 vessels	MSFCMA (50 CFR 660)	Aug – Nov	$125,000	National Observer Program	2008	100% vessels covered with electronic monitoring	100%	100	160	electronic monitoring, no observers used
At-Sea Hake Mid-Water Trawl Fishery	15 vessels	MSFCMA (50 CFR 660)	May – Dec	$170,000	Reducing Bycatch	1975 – present	100% (two observers on every vessel)	100%	800	1,586	46
				$390,000	Industry Funding						
Regional Safety Cross-Training	NA	NA	NA	$2,649	Reducing Bycatch	2008	NA	NA	NA	NA	NA
TOTAL NORTHWEST REGION OBSERVER PROGRAM FUNDING (CONGRESSIONAL): $5,551,443											
TOTAL NORTHWEST REGION OBSERVER PROGRAM FUNDING (INDUSTRY): $390,000											
TOTAL NORTHWEST REGION OBSERVER PROGRAM FUNDING (ALL SOURCES): $5,941,443											

Fisheries Observed	Fleet Size	Authority to Place Observers	Season of Operation	Funding Amount	Funding Source	Program Duration	Target % Coverage	Actual % Coverage	Target Sea Days	Actual Sea Days	Number of Observers
Southwest Region Observer Program, Southwest Regional Office, 501 West Ocean Blvd, Long Beach, CA 90802-4213											
Program Manager: Lyle Enriquez, 562-980-4025, lyle.enriquez@noaa.gov, website: http://swr.ucsd.edu/hcd/fishobs.htm											
California/Oregon Pelagic Drift Gillnet Fishery	40 vessels	MMPA Cat. I (50 CFR 229), MSFCMA (50 CFR 660)	Aug - Jan	$462,170	National Observer Program	1990 - present	20%	13-14%	350	229	6
California Pelagic Longline Fishery	1 vessel	MMPA Cat. II (50 CFR 229), MSFCMA (50 CFR 660)	Dec - Apr	$157,479	Reducing Bycatch	2001 - present	100%	100%	100	100	1
TOTAL SOUTHWEST REGION OBSERVER PROGRAM FUNDING (CONGRESSIONAL): $619,649											
TOTAL SOUTHWEST REGION OBSERVER PROGRAM FUNDING (INDUSTRY): NA											
TOTAL SOUTHWEST REGION OBSERVER PROGRAM FUNDING (ALL SOURCES): $619.649											

Fisheries Observed	Fleet Size	Authority to Place Observers	Season of Operation	Funding Amount	Funding Source	Program Duration	Target % Coverage	Actual % Coverage	Target Sea Days	Actual Sea Days	Number of Observers
Hawaii Fisheries Observer Program, Pacific Islands Regional Office, 1601 Kapiolani Blvd, Honolulu, HI 96814-4700											
Program Manager: John Kelly, 808-973-2935, john.d.kelly@noaa.gov, website: http://swr.nmfs.noaa.gov/pir/index.htm											
Hawaii Pelagic Longline Fishery	164 vessels with permits (112 active)	MSFCMA (50 CFR 660)	year-round	$3,975,021	Obs/Trn-Hawaii Longline Observers	1994 - present	20% Tuna	20%	Fleet Dep.	6,497	60
				$1,000,000	Hawaii Sea Turtles		100% swordfish	100% swordfish	Fleet Dep.	2,763	35
American Samoan Pelagic Longline fishery	30	MSFCMA (50 CFR 660) in Jan. 2005	year-round	$300,301	National Observer Program	2005-present	20%	12%	Fleet Dep.	479	2
Program support for the Western and Central Pacific Fisheries Commission	NA	NA	year-round	$187,479	Reducing Bycatch	2008	NA	NA	NA	NA	NA
Developing and Adapting LODS to Enable the Integration of Observer and Logbook Data (LLDS)	NA	NA	year-round	$132,000	National Observer Program	2007	NA	NA	NA	NA	NA
Upgrades to LODs System	NA	NA	year-round	$129,870	National Observer Program	2007	NA	NA	NA	NA	NA
TOTAL PACIFIC ISLANDS REGION OBSERVER PROGRAM FUNDING (CONGRESSIONAL): $5,724,671											
TOTAL PACIFIC ISLANDS REGION OBSERVER PROGRAM FUNDING (INDUSTRY): NA											
TOTAL PACIFIC ISLANDS REGION OBSERVER PROGRAM FUNDING (ALL SOURCES): $5,724,671											

ATLANTIC OCEAN, GULF OF MEXICO, CARIBBEAN											
Fisheries Observed	**Fleet Size**	**Authority to Place Observers**	**Season of Operation**	**Funding Amount**	**Funding Source**	**Program Duration**	**Target % Coverage**	**Actual % Coverage**	**Target Sea Days**	**Actual Sea Days**	**Number of Observers**
Northeast Fisheries Observer Program, Northeast Fisheries Science Center, 166 Water Street, Woods Hole, MA 02543-1097											
Program Manager: Amy Van Atten, 508-495-2266, amy.van.atten@noaa.gov, website: http://www.nefsc.noaa.gov/femad/fsb/											
New England Groundfish Trawl and Sink Gillnet Fisheries (also shrimp trawl, bottom longline/tub, herring mid-water pair trawl, whiting trawl)	approx. 1,200 trawl vessels and 250 gillnet vessels	MSFCMA (50 CFR 648); MMPA Cat. I (50 CFR 229)	year-round	$8,516,475	Obs/Trn-New England Groundfish	1990 - present	8-10%	8-10%	7,083	7,083	85
Mid-Atlantic Coastal Gillnet Fishery (includes monkfish, dogfish, and several state fisheries)	>665 vessels	MMPA Cat. II (50 CFR 229)	year-round	$1,209,699	MMPA	1994 - present	<3%	<3%	1,052	1,052	included in groundfish
NE and Mid-Atlantic Small Mesh Trawl Fisheries (squid, mackerel, butterfish)	719 permits	MMPA Cat. I (50 CFR 229.7); MSFCMA (50 CFR 648)	year-round	$1,491,604	Obs/Trn-Atlantic Coast Observers	2001 - present	<3%	<3%	1,239	1,239	included in groundfish
Mid-Atlantic Illex Squid Trawl Fishery	vessels unknown	MSFCMA (50 CFR 648); MMPA Cat. I (50 CFR 229)	year-round	NA	included in small mesh trawl fisheries	2004 - present	<3%	<3%		included in small mesh trawl fisheries	included in groundfish
Atlantic Sea Scallop Dredge Fishery	250 vessels with permits, 185 active	MSFCMA (50 CFR 648)	year-round	$2,280,200 $187,479	Industry Funding Reducing Bycatch	1999 - present	10%	10%	3508	3508	included in groundfish
NE and Mid-Atlantic Large Mesh Trawl Fisheries (summer flounder, bluefish, monkfish, dogfish)	620 vessels (2,138 permits)	MSFCMA (50 CFR 648)	year-round	$374,958	National Observer Program	1998 - present	<3%	<3%	326	326	included in groundfish
TOTAL NORTHEAST REGION OBSERVER PROGRAM FUNDING (CONGRESSIONAL): $11,780,215											
TOTAL NORTHEAST REGION OBSERVER PROGRAM FUNDING (INDUSTRY): $2,280,200											
TOTAL NORTHEAST REGION OBSERVER PROGRAM FUNDING (ALL SOURCES): $14,060,415											

Fisheries Observed	Fleet Size	Authority to Place Observers	Season of Operation	Funding Amount	Funding Source	Program Duration	Target % Coverage	Actual % Coverage	Target Sea Days	Actual Sea Days	Number of Observers
Southeast Fisheries Observer Programs - Programs are managed in separate laboratories as indicated below.											
Southeast Shrimp Trawl Observer Program, Southeast Fisheries Science Center, Galveston Laboratory, 4700 Avenue U, Galveston, TX 77551-5997											
Program Manager: Elizabeth Scott-Denton, 409-766-3571, elizabeth.scott-denton@noaa.gov, website:http://galveston.ssp.nmfs.gov/galv/research/management.htm#observer_program											
Southeast and Gulf of Mexico Shrimp Otter Trawl Fisheries (including rock shrimp)	approx. 1,870 (GOM) and 640 (SA) USCG federally permitted vessels, unknown number of state vessels, ~257 rock shrimp vessels	Voluntary through July 2007; Mandatory - July 2007 MSFCMA (50 CFR 635)	year-round	$234,700	National Observer Program	1992 - present	2%	2%	1,593	1,555	25
				$1,786,212	Obs/Trn-South Atlantic and Gulf Shrimp Observers						
				$214,870	Obs/Trn-Atlantic Coast Observers						
Atlantic Pelagic Longline Observer Program, Southeast Fisheries Science Center, 75 Virginia Beach Dr, Miami, FL 33149-1003											
Program Manager: Lawrence Beerkircher, 305-361-4247, lawrence.r.beerkircher@noaa.gov, website: http://www.sefsc.noaa.gov/											
Atlantic, Gulf of Mexico, Caribbean Pelagic Longline Fishery	70-80 active vessels	MSFCMA (50 CFR 635); MMPA Cat. I (50 CFR 229); ATCA	year-round	$1,248,225	Obs/Trn-Atlantic Coast Observers	1992 - present	8% by vessel sets	~13%	662 vessel sets	2,089	10 (regular season), 35 enhanced bluefin coverage
				$346,653	Obs/Trn - East Coast Observers						
				$1,817,000	Enhanced Bluefin Tuna						
Southeast Shark Driftnet Observer Program & Shark Bottom Longline Observer Program, Southeast Fisheries Science Center, Panama City Laboratory, 3500 Delwood Beach Rd, Panama City, FL 32408											
Program Manager: Dr. John Carlson, 850-234-6541, john.carlson@noaa.gov, website: www.wefscpanamalab.noaa.gov/shark/observersBLL.htm											
Southeast Shark and Coastal Teleost Gillnet Fishery	4-23 vessels with directed shark permits	MMPA Cat. II (50 CFR 229); MSFCMA (50 CFR 635)	year-round	$347,652	Obs/Trn-Atlantic Coast Observers	1998 - present	100% shark strike, 38% shark drift, 5% shark and teleost sink net	100% shark strike, 38% shark drift, 5% shark and teleost sink net	>75 permits	280 field days	4

Fisheries Observed	Fleet Size	Authority to Place Observers	Season of Operation	Funding Amount	Funding Source	Program Duration	Target % Coverage	Actual % Coverage	Target Sea Days	Actual Sea Days	Number of Observers
Southeast Shark Driftnet Observer Program & Shark Bottom Longline Observer Program, Southeast Fisheries Science Center, Panama City Laboratory, 3500 Delwood Beach Rd, Panama City, FL 32408											
Program Manager: Dr. John Carlson, 850-234-6541, john.carlson@noaa.gov, website: www.wefscpanamalab.noaa.gov/shark/observersBLL.htm											
Atlantic and Gulf of Mexico Directed Large Coastal Shark Bottom Longline Fishery	251 directed shark permits (as of Oct. 2002)	MSFCMA (50 CFR 635)	Year-round-Open until quota is filled	$20,000	F/ST - Expand Stock Assessment	1994 - present	100% sandbar shark research fishery; 4-6% non-sandbar shark fishery	100% sandbar shark research fishery; 4-6% non-sandbar shark fishery	130 sandbar shark research fishery; ? non-sandbar shark fishery	130 sandbar shark research fishery; 98 non-sandbar shark fishery	4 to 6
				$140,237	Reducing Bycatch						
				$195,000	Fisheries Research and Management Program - SF Funding						
Gulf of Mexico Reef Fish Fishery Observer Program, Southeast Fisheries Science Center, Galveston Laboratory, 4700 Avenue U, Galveston, TX 77551											
Program Manager: Elizabeth Scott-Denton, 409-766-3507, elizabeth.scott-denton@noaa.gov											
Gulf of Mexico Reef Fish Fishery	Approx. 1,000 permitted USCG documented vessels	mandatory	year-round	$47,242	Reducing Bycatch	2006 - present	<1%	1%	134+SEFSC Supplement	441	25
				$140,258	National Observer Program						
TOTAL SOUTHEAST REGION OBSERVER PROGRAM FUNDING (CONGRESSIONAL): $6,538,049											
TOTAL SOUTHEAST REGION OBSERVER PROGRAM FUNDING (INDUSTRY): NA											
TOTAL SOUTHEAST REGION OBSERVER PROGRAM FUNDING (ALL SOURCES): $6,538,049											

National Observer Program, Office of Science and Technology, 1315 East West Highway, Silver Spring, MD 20910											
Manager: Dr. Lisa Desfosse, 301-713-2363, lisa.desfosse@noaa.gov, website: http://www.st.nmfs.gov/st1/nop											
National Bycatch Report NOTE: funds distributed to ST and regional programs	NA	NA	year-round	$686,636.00	National Observer Program	2005 - present	NA	NA	NA	NA	NA
				$234,349.00	Reducing Bycatch						
				$50,293.00	Atlantic Coast Observers						
National Observer Program Support Activities	NA	NA	year-round	$8,000.00	Reducing Bycatch	1999 - present	NA	NA	NA	NA	NA
AMSEA Safety Training	NA	NA	NA	$7,965.00	National Observer Program	2008	NA	NA	NA	NA	NA
				$2,035.00	Reducing Bycatch						
International Fisheries Observer & Monitoring Conference	NA	NA	NA	$150,000.00	Reducing Bycatch	2008	NA	NA	NA	NA	NA
Science & Technology	NA	NA	NA	$316,925.00	National Observer Program	2008	NA	NA	NA	NA	NA

TOTAL OBSERVER PROGRAM CONGRESSIONAL FUNDING	**$33,185,325**	
Total Reducing Bycatch	**$1,693,849**	
Total National Observer Program	**$3,722,911**	
TOTAL OTHER CONGRESSIONAL FUNDING	**$4,256,900**	
TOTAL INDUSTRY FUNDING	**$15,670,200**	
TOTAL OBSERVER FUNDING - ALL FUNDING SOURCES	**$53,112,425**	**Totals may not sum due to rounding**

ESTIMATED NUMBER OF SEA DAYS TARGETED - Does not include programs that target permits, sets, or trips instead of sea days	**42,607**	
ACTUAL NUMBER OF SEA DAYS OBSERVED - Includes days deployed for electronic monitoring, does not include programs that target permits, sets, or trips instead of sea days.		**70,957**

TOTAL NUMBER OF OBSERVERS - Does not include deployments for electronic monitoring	**853**

U.S. Secretary of Commerce
Gary Locke

Administrator of National Oceanic and Atmospheric Administration
and Undersecretary of Commerce
Dr. Jane Lubchenco

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