

requires that FMPs include conservation and management measures, to the extent practicable, that (a) minimize bycatch and (b) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch. Observers provide a reliable platform for observations regarding bycatch—data that may not be available through other sources if there is release or discard of unwanted catch at sea.

NMFS has approved and implemented 43 FMPs (41 of these were developed by RFMCs) and manages 143 distinct fisheries within these FMPs under the authority of the MSA. Another 178 fisheries operate in Federal waters that are currently not managed under an FMP. Since 1996, the number of commercial fisheries observed has doubled from 13 to 26 fisheries. In addition, NMFS observes a limited number of recreational fisheries. For example, NMFS' large pelagics survey conducts at-sea observations of catch (including bycatch) by headboats that target Atlantic highly migratory species (HMS). Also, NMFS plans to implement a new data collection methodology utilizing on-board observations of catch (including bycatch) for headboats in non-HMS Atlantic recreational fisheries as part of NMFS' Marine Recreational Fisheries Statistics Survey.

NMFS established a National Observer Program office within the headquarters Office of Science and Technology in 1999. The mission of this office is to provide a formalized mechanism for NMFS to address observer issues of national importance and to develop policies, plans, and procedures to ensure that observers and observer programs are fully supported. The policies, plans, and procedures reflect the diverse needs of regional observer programs while enhancing data quality and achieving consistency in key areas of national importance. This office is aided by an intra-agency advisory team comprised of representatives from each NMFS headquarters office and region. The team functions to identify issues of national concern, recommending or establishing, where appropriate, priorities for national research and problem solving, and supporting information collection and program implementation. The National Observer Program office has convened several workshops and an international conference to this end.

In addition to its role in policy development, the National Observer Program has been a driving force in the development and tracking of budget initiatives to modernize and expand observer programs. The program also serves as a clearinghouse for

information regarding each of the regionally-implemented observer programs. General information about NMFS observer programs can be found on the National Observer Program's website, at <http://www.st.nmfs.gov/st1/nop/>.

C. Selected Accomplishments and Ongoing Activities under the MSA

In the over two decades since enactment of the MSA, the RFMCs and NMFS have taken many and varied actions to address bycatch. The RFMCs and NMFS have worked particularly hard to ensure that MSA bycatch requirements are reflected in management measures after the 1996 SFA amendments to the MSA focused additional attention on the issue of bycatch. Regional examples of progress are provided below.

1. Alaska Region: Bycatch Management in the Groundfish Fisheries

The bycatch of Pacific halibut, crab, Pacific salmon, and Pacific herring in the Alaska groundfish fisheries has been an important management issue for more than 20 years. To address this problem, the NPFMC recommended and the Secretary of Commerce approved and implemented a variety of management actions that were intended to help control the bycatch of these prohibited species in the groundfish fisheries. Since the late 1980s, the bycatch of groundfish in the groundfish fisheries has also been a major management issue. Through 1996, 35 amendments to the BSAI and GOA groundfish FMPs were intended principally or in part to manage the bycatch of prohibited species and groundfish.

The initial groundfish FMPs and amendments to them prior to the SFA included a variety of bycatch management measures, including prohibitions on the retention of specific non-groundfish species, which are referred to as prohibited species, time and area closures and seasonal apportionments of groundfish quotas, gear restrictions, groundfish quota allocations by gear type, reductions in some groundfish quotas, extensive at-sea and on-shore observer programs to monitor bycatch, extensive requirements for reporting catch and product utilization, prohibited species catch (PSC) limits, a vessel incentive program (VIP) with civil penalties for fishing vessels that exceed established bycatch rates for Pacific halibut or red king crab, a prohibition on roe-stripping, required retention of Pacific salmon bycatch until counted by an observer, individual fishing quota (IFQ)

management for the fixed-gear Pacific halibut and sablefish fisheries, target fishery definitions, and careful release regulations for longline fisheries. Additional measures that initially were considered before the SFA include: (1) a harvest priority program that would reserve part of the groundfish quotas or seasons for vessels that meet specific bycatch standards; (2) regulations that would both prohibit at-sea discards of the major groundfish species and limit the percentage of the catch that is not used to produce products for human consumption; (3) individual transferable bycatch quotas; and (4) methods to decrease the time between capture and release of Pacific halibut in groundfish trawl fisheries.

The at-sea observer program has been a critical element of the bycatch management regime for the Alaska groundfish fisheries for almost 30 years. The program was developed for the foreign fleets before the Fishery Conservation and Management Act (FCMA) was implemented and was extended to the domestic fishery once domestic vessels had all but replaced foreign fishing and processing vessels. The observer program resulted in fundamental changes in the nature of the bycatch problem. First, by providing good estimates of total groundfish catch and non-groundfish bycatch by species, it eliminated much of the concern that total fishing mortality was being underestimated due to fish that were discarded at sea. Second, it made it possible to establish, monitor and enforce the groundfish quotas in terms of total catch as opposed to only retained catch. For the groundfish fisheries, this means that both retained catch and discarded catch are counted against the TACs. Third, it made it possible to implement and enforce PSC limits. Finally, it provided extensive information that managers and the industry could use to assess methods to reduce bycatch and bycatch mortality. In summary, the observer program provided fishery managers with the information and tools necessary to prevent bycatch from adversely affecting the stocks of the bycatch species. Therefore, the bycatch in the groundfish fishery is principally not a conservation problem, but it can be a contentious allocation problem. Although this does not make it less controversial, it does help identify the types of information and management measures that are required to reduce bycatch to the extent practicable, as is required by the MSA.

Several post-SFA amendments to the GOA groundfish FMP were intended to decrease bycatch, including Amendment 59 (Cape Edgecombe