

## **Observer Program Planning**

An Observer Program planning meeting was held in Gladstone, Oregon on Nov 9, 2000. In attendance were representatives from NMFS, PFMC, PSMFC, WDFW, ODFW, and CDFG. The plan presented by the NMFS-Northwest Fisheries Science Center is consistent with the PFMC observer implementation committee's recommendations developed in 1999.

### **1. Program Goals**

- a. Improve management of groundfish by improving estimate of total catch, primarily through ongoing collection of information on discarded catch which will complement current shoreside information on landed catch
- b. Improve estimate of total catch of prohibited species in the groundfish fishery
- c. Improve management by collecting better biological and economic information from the groundfish fishery
- d. Provide timely and efficient system for collection, storage, analysis and communication of information

### **2. Program Structure**

The core NMFS-NWFSC staff will include a team leader, a database manager, and two staff who will serve as trainers/debriefers/field coordinators. It is likely that one of the coordinators will be stationed in California and one in Seattle with the team leader and database manager. The Seattle based coordinator will also be responsible for the at-sea whiting fishery. The two NMFS coordinators will be supplemented by one halftime coordinator in each state funded by the observer program. The primary responsibility of these state positions will be to facilitate deployment of observers, to provide current information on expected vessel activities, and to coordinate biological sampling by the observer program with existing shoreside biological sampling. This collaboration with the current shoreside fishery monitoring efforts is important. Otherwise, additional coordinators will be necessary.

A pool of 20 observers will be provided by contract, with the PSMFC viewed as the most likely contractor.

NMFS intends to use the recently prototyped Electronic Logbook as the primary means of collecting observer data and rapidly making these data available for debriefing and analysis.

### **3. Proposed Approach to Analysis Based on Examination of EDCP Results**

A summary of the analysis of groundfish discard data collected by the Enhanced Data Collection Program (EDCP) was presented as a prototype for future analysis of discard data.

- Over 200 trips were observed and much of the discard occurs from just a few trips for each species. These high discard trips were spread among the observed vessels;

- Discard Pattern - Discard of deepwater complex (DTS) species occurred primarily in trips that had nearly achieved their limit of one or more DTS species, yet the vessel continued to fish for other DTS species;
- Analysis Model - The analysis related the amount of discard for each species to the vessel's remaining limit and to the vessel's landed catch of all DTS species. This was done by linking the EDCP observer data on discard to the vessel's landed catch data available from fish tickets stored in PacFIN. This method has two major benefits:
  - Allows Extrapolation Across Trip Limit Changes - Because this approach directly incorporates information on a vessel's remaining limit, it allows extrapolation of discards even when limits change, so will provide more timely estimates of discard rates than relying upon accumulation of new data specific to each management regime to calculate a new simple average discard level;
  - Adjusts for "Observer Effect" - The discard model can also reduce potential bias in the estimates by adjusting for any non-proportional sampling of trips that are close to cumulative limits. Since DTS landings and remaining limit can be calculated for each trip in the fish ticket database, the model could be used to predict discards for the unobserved trips, thus adjusting for any tendency for the unobserved trips to have a higher or lower occurrence of trips near the cumulative limits. The key is to collect discard over a wide range of conditions, use these data to calibrate a statistical relationship, then apply this relationship to all fishing effort within the sampled segment of the fishery.

#### 4. Coverage Plan

The program's efforts need to provide timely information from each area, time and gear strata. This goal is comparable to that of the shoreside fishery monitoring sampling goals. The level of discard will differ among the various gear/area strata and will change over time due to biological, economic and management factors. However, at the current level of funding, it will not be possible to provide sufficiently accurate new estimates for each area/gear/time strata. The plan is to use a statistical model to better pool the data over time and to rotate the focus of coverage among the major gear/area strata to keep the calibration of the model as updated as possible. Because the non-trawl fishery has no history of significant observer coverage, it is not possible at this time to estimate what level and type of coverage will be most appropriate to provide information on those gear strata.

The proposed coverage plan would have the following features:

- Fleet Rotation - Target 75% of effort on coastwide trawl in first year with remainder of effort used for pilot coverage on other gear sectors, particularly fixed gear sablefish and hook&line rockfish. An analysis of trawl effort showed that this could achieve a 10% coverage level in 1999. Therefore the proposed level of observer effort would achieve an even higher level of coverage in the restricted fishery of 2001. In the second year, observer deployment would be adjusted to obtain adequate coverage on the sablefish and hook&line sectors. In third year and beyond, we would use results of the first two years to adjust the coverage plan among all potential fleet sectors. A rotational coverage is likely to be necessary because at the current level of funding (\$2.275 M) it will not be possible to simultaneously cover all fleet sectors at a sufficient level.

- Coastwide Focus - Groundfish fishing activity is broadly distributed along the coast. Historical pilot observer coverage has been primarily on the trawl fleet in the northern portion of the west coast, so the new comprehensive program must immediately begin to provide coverage in southern areas in order to improve coastwide discard estimates. A broad distribution of observers would have 1-3 observers working at each of about 14 ports, although in the early stages of the program it may be necessary to concentrate larger pools of observers at fewer ports.
- Follow Vessels - The plan is to observe a vessel for all of its groundfish activities throughout a two-month cumulative period. This will ease logistics and the burden of trip notification and insurance, reduce the degree of "observer effect", and allow examination of variability between vessels. This approach will be modified for the pilot coverage of the non-trawl sectors.
- Vessel Selection - This will occur according to the recently published observer regulations. At the anticipated level of effort, each trawl vessel is expected to be selected for approximately one two-month period in the first year of the program.
- At-Sea whiting - The program will provide infrastructure, training, etc. for observers in the at-sea whiting fishery, but because of the special requirement for 100% coverage of this fishery, this new program will not be able to fund the observers for the at-sea whiting fishery sector.
- Special Projects - A small level of observer effort will be used to monitor special projects, such as a pilot project on landing of trip limit overages. In addition, the program will investigate alternative, cost-effective methods to obtain discard information from a broad spectrum of vessel sizes and types.

## 5. **Next Steps**

- NMFS-NWFSC is currently recruiting a team leader for the observer program and will soon begin recruiting for other positions. The current hiring freeze has delayed this process, but the process of recruiting and interviewing candidates is proceeding.
- States will investigate logistical issues involved with supporting and deploying observers at distributed ports.
- PSMFC and NMFS will continue to investigate aspects of observer contracting and the best way to provide overall coordination and supervision of the observers.
- The NMFS-NWFSC will continue to participate on the NMFS National Observer Program Advisory Team where information on national observer issues such as contracting, insurance, observer standards, etc., is coordinated