

IMPROVING RESOURCE SURVEYS FOR WEST COAST GROUND FISH

Problem Statement

Current surveys of valuable West Coast groundfish are insufficient in number and geographic scope to provide adequate information about distribution, abundance and age structure of groundfish populations. Additional surveys are needed to insure stock assessments more accurately reflect population trends.

Critical Factors

- The Northwest Fisheries Science Center (NWFSC) combines data from its trawl surveys with information derived from life-history studies and commercial landing statistics to calibrate models of groundfish population dynamics.
- These models are used to generate estimates of current abundance and fishing mortality levels, identify trends in abundance and predict sustainable annual harvest levels for groundfish populations.
- The Pacific Fishery Management Council considers the NWFSC's potential harvest forecasts when it establishes annual harvest guidelines.
- To date, harvest guidelines have been based on incomplete information about stock abundance, distribution and productivity.
- Additional resource information is needed to improve the quality of forecasts.

Status of Research

During 1998, the NWFSC initiated a new, annual series of resource assessment surveys of slope species from Cape Flattery, WA to Morro Bay, CA using commercial trawling vessels. In 2002, the area surveyed expanded to the to the Mexican border. The surveys are designed to:

- 1) characterize the relative abundance and distribution of the slope species complex;
- 2) test new methods and technologies for data acquisition and recording.

In 2003, an annual shelf survey will begin using chartered commercial fishing vessels. An acoustic survey of Pacific whiting was previously conducted triennially. However, in 2003, the survey will be the first conducted on a biannual basis. Additional surveys in untrawlable habitats are now being developed.

Future Considerations

Increasing the number and frequency of surveys will improve the Center's ability to track trends in the abundance of key West Coast groundfish species. The Center must also begin routine surveys in untrawlable habitat. Currently, the acoustic surveys are dependant on the availability of the calibrated Canadian research vessel. Access to a dedicated Fisheries Survey Vessel (FSV) is necessary to conduct biannual surveys routinely. A dedicated FSV will also allow scientists to gather additional biological information and to increase survey capabilities to include juvenile sampling, studies of habitat/resource interaction and studies of multi-species interactions within the marine ecosystem.

Key Players

Fishery Resource Analysis and Monitoring Division (FRAM), NWFSC

Alaska Fisheries Science Center, NOAA Fisheries
Southwest Fisheries Science Center, NOAA Fisheries
Pacific Fishery Management Council
Pacific States Marine Fisheries Commission
California Department of Fish and Game
Oregon Department of Fish and Wildlife
Washington Department of Fish and Wildlife
Oregon State University
University of Washington
Oregon Trawl Commission

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