

DEFINING ESSENTIAL FISH HABITAT AND ASSESSING THE IMPACT OF FISHING GEAR ON STOCKS

Problem Statement

Under the Sustainable Fisheries Act (SFA), NOAA Fisheries is required to identify and protect essential fish habitat (EFH) and to conduct consultations on activities that may affect it. Related to this charge is the task of evaluating the impact of fishing gear on EFHs.

Critical Factors

- Habitats must be characterized and their relationship to distribution and abundance of fish must be defined in order to identify EFHs.
- Use of fishing gear can negatively impact habitats of West Coast groundfish and it is necessary to develop ways to understand and mitigate these impacts.
- More data are needed on the nature and extent of gear impacts before safeguards can be developed, new gear types can be developed or restrictive measures on gear use can be implemented.

Status of Research

Research on the impact of fishing and other activities on marine habitats focuses on four areas:

- 1) Defining the relationships between habitats and groundfish;
- 2) Determining which habitats are most susceptible to impacts;
- 3) Determining the relationship between different levels of fishing activity and habitat degradation;
- 4) Developing new fishing practices and gear to minimize the impact of fishing on habitats.

The groundfish habitat research at the Northwest Fisheries Science Center is focused on developing both base maps of habitats (including information on oceanography, bathymetry and sediment type) and maps of species distribution and abundance. The data are being compared to determine the habitat associations of many life history stages of individual groundfish species. The data will then be correlated with data on present and past fishing grounds and fishing methods to assess the impacts of those techniques on given locales.

Future Considerations

Groundfish habitat on the West Coast is very diverse and spans a large geographic area. Existing habitat data are sparse and what data are available are dispersed over many agencies and institutions. Much of the habitat cannot be surveyed by trawls so new technologies for surveying distributions of fish in untrawlable habitats must be developed and deployed. Additionally, gear research efforts must be expanded to develop new low-impact gears and fishing methods.

Key Players

Fishery Resource Analysis & Monitoring (FRAM) Division, NWFSC

Southwest Fisheries Science Center, NOAA Fisheries

National Undersea Research Program, NOAA

Pacific Marine Environmental Laboratory, NOAA

National Ocean Service, NOAA

U.S. Geological Survey

Marine Sanctuary Program, NOAA

Oregon Coastal Zone Management Association

Contact: Dr. Elizabeth Clarke, Director, FRAM Division (206/860-3381)

