

Fishing Effects

ONE OF THE MORE DIFFICULT ISSUES FOR FISHERIES MANAGERS IS MITIGATING FISHING GEAR IMPACTS ON BENTHIC HABITATS CRITICAL FOR SPECIES SURVIVAL.

All of the regional fishery management councils need this information for developing environmental impact statements and assessments for proposed regulations. Research to support this effort should examine:

- the magnitude and disturbance rates of repetitive fishing
- vulnerability and resilience of certain habitat types to fishing disturbances
- recovery rates of benthic habitat
- how fishing gear may be modified to reduce its impacts on habitat

The councils also need to determine if certain areas should be closed to protect fish stocks or special faunal assemblages such as corals and sponges. And if the case for a closure is made, what are the economic consequences for the fisheries?

Conclusively determining whether observed changes in habitat are due to fishing is difficult. As a result, few studies have come forward to tackle this problem. New studies to do so involve a combination of field work, laboratory experiments, and modeling.

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Fishing Effects near Round Island

Project 201

PROJECT 201 CARRIED OUT A PILOT STUDY TO MAP AND CLASSIFY NEARSHORE habitat in northern Bristol Bay using acoustic and visual techniques. They set out to compare two offshore habitats near Round Island, one trawled and one untrawled, during the yellowfin sole fishery. While researchers accomplished much of the nearshore mapping work, rough seas and very poor visibility severely limited acquisition of seabed video data at the offshore sites, preventing the study from completing the fishing effects component.



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Impacts of Trawls on Flatfish Habitat off Kodiak Island

Project 710



Cliff Ryer

ANOTHER STUDY EXAMINES POTENTIAL TRAWL IMPACTS on ecological processes controlling habitat quality in juvenile flatfish nurseries around Kodiak Island. Project 710 builds on Project 301, which examined worm tube habitat for juvenile flatfish nurseries. It uses controlled field experimentation to examine trawl impacts upon structural components of flatfish habitat and measures the changes in juvenile flatfish spatial distribution in response to that disturbance. The goal is to quantify juvenile flatfish distributional response to trawl disturbance as well as compare feeding and vulnerability to predation in disturbed versus undisturbed areas of seafloor characterized by a range of worm tube densities.