

Subsistence Use of Marine Resources

RESIDENTS IN RURAL COASTAL COMMUNITIES DO NOT HAVE THE SAME ACCESS TO COMMERCIAL FOOD SUPPLIES AS MORE POPULATED AREAS, AND RELY ON SUBSISTENCE USE OF ALASKA'S LIVING MARINE RESOURCES. FISHING, HUNTING, AND OTHER FORMS OF FOOD GATHERING ARE CRITICAL ACTIVITIES THAT SUSTAIN RURAL AREAS, MOST OF WHICH ARE OFF THE ROAD SYSTEM.

The Board has funded two studies, projects 643 and 645, directly related to subsistence use of resources, though others have examined contaminants in subsistence foods (projects 534, 644, and 822) or used subsistence hunters to provide samples (Project 312) and are discussed elsewhere in this report.

HUMANS :: Subsistence Use of Marine Resources

Changes in Bering Strait Harvests

Project 643

IN PROJECT 643, RESEARCHERS SET OUT TO DOCUMENT SUBSISTENCE HARVESTS AND GATHER LOCAL AND TRADITIONAL knowledge in the Bering Strait region in communities along the coast of Norton Sound, in the southern Chukchi Sea, and on St. Lawrence Island. The study documented the views of local residents about the many changes they have experienced since Statehood. They've witnessed a warming of their region, the appearance of new fish species, marine mammals with reduced blubber thickness, and more prevalence of beavers and willows on the Seward Peninsula. More frequent violent storms wreak havoc with coastal communities, and melting permafrost shrinks tundra ponds and lowers river levels. Changes in sea ice impact the availability of marine mammals and hunting operations that depend on stable ice conditions. The surveys also found that marine mammals and seabird eggs were prominent components in the diets of people living in villages within the sampled area.

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Halibut and Rockfish Harvests

Project 645

IN 2003, THE NORTH PACIFIC FISHERY MANAGEMENT Council allowed rural community residents to use longlines for subsistence halibut much more extensively than previously allowed by the State of Alaska. Questions immediately arose about the impacts of these new activities on bycatch and discard of rockfish and their populations. Were fishermen catching and discarding more rockfish while targeting halibut? How were rockfish populations faring? What types of gear were being used and how had the fisheries changed?

To determine how halibut subsistence fishing may be impacting local rockfish stocks, Project 645 collected local information about rockfish harvests in four communities on the Gulf coast: Sitka in Southeast Alaska, and Nanwalek, Port Graham, and Tatitlek in Southcentral. They learned that fishermen tended to catch certain rockfish species such as quillback, yelloweye, and black rockfish, but to retain just the larger ones because of the relatively low meat recovery rate (about 30% of the smaller individuals). Longlines were used more off Sitka than up in Southcentral, where rod and reel was the gear of choice.



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Investigators also learned the local Native names for rockfish species, how they prepared and stored it for winter, and how they shared the catch among families. Fishermen also talked about spreading their fishing over broader areas to reduce the chances of overfishing particular concentrations of rockfish, and voiced their concerns over heavy competition from non-local recreational and commercial fishermen. The study concluded by recommending that further effort be put into developing practical rockfish avoidance strategies in the subsistence halibut fisheries.