

## MMS ENVIRONMENTAL STUDIES PROGRAM: ONGOING STUDIES

**Region:** Alaska

**Planning Area:** North Aleutian Basin

**Title:** Juvenile and Maturing Salmon Use of the North Aleutian Basin Lease Area (AK-08-07)

**MMS Information Need(s) to be Addressed:** Local residents, highly dependent on salmon for both economic and subsistence livelihoods, are concerned about oilspill and other impacts on salmon in the lease area. Very little is known about how much of the ocean life cycle of salmon is spent in the proposed lease area. MMS analysts and decision makers will use the information in NEPA analysis and documentation for Lease Sales, EPs and DPPs and in post-sale and post-exploration decision making in the NAB.

**Cost Range:** TBD

**Period of Performance:** FY 2009-2011

**Conducting Organization:** TBD

**MMS Contact:** [Chief, Alaska Environmental Studies Section](#)

### **Description**

*Background* It would be difficult to identify an area in the Bering Sea, or possibly anywhere in the world, that has greater fisheries use issues than the North Aleutian planning area. Bristol Bay includes eight major river systems that collectively support the largest commercial sockeye salmon fishery in the world. The Kvichak River is home to the single largest salmon run and the Nushagak River hosts the largest king salmon run in Alaska. Annual commercial catches average nearly 24 million sockeye salmon, 69,000 chinook, 971,000 chum, 133,000 coho, and 593,000 pinks. On average, individuals in Bristol Bay communities harvest 315 pounds per person, as their main source of food.

Nearshore areas are seldom surveyed as fish habitat. While current fish surveys do sample within parts of the potential lease area during late summer and early fall, they do not sample during the late winter to early summer period nor in all parts of the proposed lease area.

A survey targeting the important sockeye, chinook, coho, pink, and chum salmon migratory from Bristol Bay watersheds in the nearshore and potential lease area, from late winter to early summer, is needed to fully evaluate the potential effects of offshore exploration and development. The survey would also sample the primary prey of salmon- young-of-the-year pollock and several similarly sized forage fish species (i.e., capelin, sand lance, sandfish, and rainbow smelt).

### *Objectives*

1. Identify salmon use of the lease area during late winter and early summer and combine with existing information from other seasons.

2. Combine information with nearshore fishes sampled with similar methods in the annual NMFS surveys in August – September (fall).
3. Develop maps of seasonal and spatial distribution of juvenile and maturing salmon within the lease area for use in NEPA analysis, particularly oil spill impact analysis.

*Methods* Conduct two years of seasonal fish use and habitat assessment with a surface trawl (top 15 m of the water column) in waters 20 m depth or greater. This project would implement surveys in May and July to assess the late winter and early summer distribution, relative abundance, diet, energetics, and size of juvenile salmon, their prey, their predators, and other forage fish on the shelf (> 20 m to 100 m) of the NAB. The surveys will also document physical oceanographic and biological characteristics (age, diet, size, growth, habitat type) of salmon and make cost-efficient collections of other fish species (forage fish and pollock) incidentally caught.

**Current Status:** In procurement

**Final Report Due:** N/A

**Publications Completed:** N/A

**Affiliated WWW Sites:** <http://www.mms.gov/alaska/>

**Revised Date:** March 2008