

ACCESS NUMBER:

STUDY TITLE: Juvenile and maturing salmon use of the North Aleutian Basin (NAB) lease area

REPORT TITLE: Review of Salmonid Use of North Aleutian Basin Lease Area and Surrounding Habitats

CONTRACT NUMBER: M09PG00008

SPONSORING OCS REGION: Alaska

APPLICABLE PLANNING AREA: North Aleutian Basin (NAB) lease area

FISCAL YEAR OF PROJECT FUNDING: 2010

COMPLETION DATE OF REPORT: April 2010

COST(S): (BY FISCAL YEAR); CUMULATIVE PROJECT COST: 2010; \$45,000 out of \$650,000 granted

PROJECT MANAGER(S): Edward V. Farley Jr.

AFFILIATION (OF PROJECT MANAGER): NOAA Fisheries, Alaska Fisheries Science Center, Ted Stevens Marine Research Institute

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KEY WORDS: North Aleutian Basin (NAB) lease area, salmon (*Oncorhynchus* spp.)

BACKGROUND:

In southwestern Bristol Bay, the North Aleutian Basin has been identified as a potential lease area for oil and gas exploration. In preparation for an upcoming field project to learn more about the salmon distribution, season use, and migration pathways in the lease area the Alaska Fisheries Science Center, Ted Stevens Marine Research Institute undertook a review of existing information on salmon in the area. Bristol Bay has some of the largest salmon returns in the world which play an important role for the subsistence communities and for the economic health of the region. Between 1988 and 2008 in Bristol Bay, commercial fisheries harvested an average of over 26 million salmon. Salmon research efforts were instigated in the 1930's to better understand this important resource.

OBJECTIVES:

- 1) Identify salmon (*Oncorhynchus* spp.) use of lease area potentially affected by offshore development, including areas 'down stream' of the lease area that would be susceptible to potential oil spills

DESCRIPTION:

Identify and review (a) existing juvenile and maturing adult salmon data from other seasons and Bering Sea locations that shed light on salmon presence or absence in the lease area, including but not limited to BASIS, ADFG smolt out migration, adult return surveys, and fishery records, (b) relevant catch and distribution data from those surveys that can be compared to this survey's results and contribute to the spatial data and to the life history account in the final report, (c) relevant GIS layers of existing information for interim use in NEPA evaluations.

SIGNIFICANT CONCLUSIONS:

It is evident from reviewing the available literature and data sets that salmon are present in the NAB and surrounding areas all seasons of the year. The U.S. BASIS data illustrate the broad distributions of all maturity stages of salmon that extend across the breadth of the southeastern Bering Sea during the

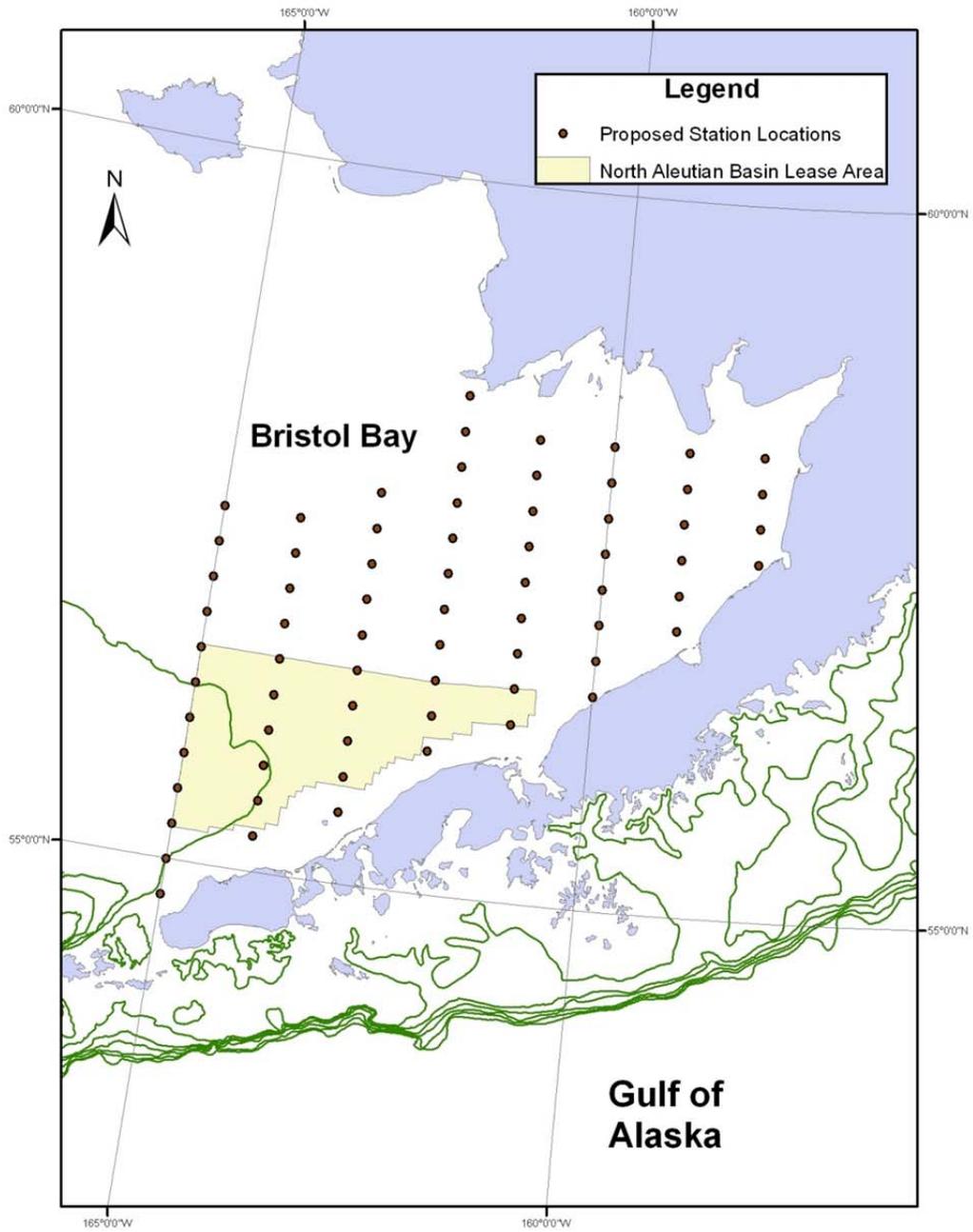
summer and fall months. These data support previous studies that demonstrated the migratory routes of both juvenile and maturing salmon; many of these migratory routes pass through or very near to the NAB. The NMFS observer data provides key insights into the winter and spring use of the NAB and surrounding areas and clearly show that immature chinook and other salmon (mostly chum) are commonly found within the NAB at all seasons.

STUDY RESULTS:

Funding for this study was terminated prior to the onset of the field component. Study results were based on initial review of current literature and appropriate data.

STUDY PRODUCT(S):

Andrews, A.G. III and E.V. Farley Jr. 2011. Review of Salmonid use of the North Aleutian Basin Lease Area and surrounding habitats.



Map of Bristol Bay, showing the North Aleutian Basin (NAB) lease area (yellow) and survey stations to be sampled during May and July 2010 by the Alaska Fisheries Science Center.