

MMS ENVIRONMENTAL STUDIES PROGRAM: ONGOING STUDIES

Region: Alaska

Planning Area: Chukchi Sea

Title: Pinniped Movements and Foraging (AK-07-08)

MMS Information Needs to be Addressed: Large numbers of pinnipeds migrate through and potentially occupy areas of high oil and gas potential in the Chukchi Sea including habitat near the Burger Prospect. Pinnipeds may be affected in a variety of ways during all stages of oil and gas exploration, development, and production. Study findings will be used in post-sale NEPA analysis, review of EPs, DPPs and other reviews for post-sale and post-exploration MMS decision making and mitigation. Also, study results will be used in similar pre-lease analyses and documentation for later Chukchi Sea Lease Sale(s) in the *Outer Continental Shelf Oil and Gas Leasing Program 2007-2012*.

Actual Costs: \$1,163,000

Period of Performance: FY 2007-2012

Conducting Organization: NMFS NMML

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

Description:

Background As winter pack ice recedes; walrus, bearded seals, and other pinnipeds follow the ice edge from wintering areas to its northern margin. For example, large numbers of walrus migrate past the Lisburne Peninsula northward over rich potential feeding habitat such as Hanna Shoal and adjacent areas of high oil and gas potential. During this northward migration, many walrus move along coastal leads between Point Hope and Point Barrow and are hunted by Natives. Ice seals may be present in the Chukchi Sea throughout the year. Seasonal movements likely occur to offshore areas having high resources near Hanna Shoal.

Concern has been expressed by Native hunters that in recent summers, sea ice is receding faster and further to the north, making walrus less available to the communities that depend on them. Very little information is available on how walrus move through this region and where they forage. The same concerns exist over the affect changes in sea ice are having on distribution of ice seals.

The Burger Prospect has potentially strong renewed interest for oil and gas exploration and development and is located just south of Hanna Shoal. It is thus situated between winter habitat and potentially important summer feeding habitat on, and around, Hanna Shoal. Plans for geophysical exploration, field delineation, and development of production facilities and pipelines in that region are being developed and such activities may have consequences for pinniped movements and habitat utilization, which in turn could alter the availability of walrus and ice seals for subsistence by Natives in villages along the Northwestern Alaskan coastline. Identification of migration routes and high-use habitat areas is critical to assessment of potential

impacts from oil- and gas-related industrial activities on pinniped populations and subsistence use by Alaskan Natives. The MMS portion shown above is approximately 50% for FY 2007 and 67% of the estimated total joint funding of the total cost to accomplish all objectives. If joint funding from other sources, e.g. NMFS, FWS, ADFG, is not achieved, target species will be limited.

Objectives

Develop a phased cooperative project to deploy satellite transmitters to study the movements and habitat use of selected pinnipeds in the Chukchi Sea Planning area.

Model this study on a cooperative study of bowhead whale distribution and movements which MMS currently supports.

Methods

Phases I & II: Cooperate with Alaska Natives in Northwestern Alaska.

Phase I:

1. Communicate with hunters in villages along the coastline of northwest Alaska and St. Lawrence Island and other interested parties, to evaluate levels of interest in the proposed study. Hold a workshop if useful.
2. Evaluate satellite tagging technology, including equipment, deployment and attachment methods and make recommendations for proposed study(s).
3. Considering the above, prepare an implementation plan for satellite tagging and data collection. Explore joint funding opportunities.

Phase II:

1. Review literature and existing data to develop hypotheses about habitat use and seasonal movements between winter and summer habitat.
2. Train Native hunters or other coastal village residents to deploy satellite transmitters on selected pinnipeds in the vicinity of respective villages.
3. Deploy transmitters to test hypotheses developed. Since tags will have a relatively short lifespan, sampling is to be spread among villages and to the extent possible divided among northward and southward migrating pinnipeds.
4. Analyze data to test hypotheses and develop recommendations for mitigations of any likely effects of development on habitat use and migration.
5. Maintain data in a GIS and provide summaries of individual movements regularly on a public website. Share results with residents of communities near the study area. Encourage participation of local Natives, especially young people, in analysis and interpretation of findings and conclusions to the extent possible.

Current Status:

The contract was awarded during September, 2007. A workshop is expected to be held and research initiated during 2008.

Final Report Due:

Annual interim reports are due 2008-2011 and a final report is due 2012.

Publications: None

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

Revised Date: March 2008