

Page Number	Discipline	Ranking	Study Title
41	SE	1	Subsistence Mapping of Wainwright, Point Lay, and Point Hope
43	FE	2	Physical and Chemical Analyses of Crude and Refined Oils: Laboratory and Mesoscale Oil Weathering
<b>45</b>	<b>MM</b>	<b>3</b>	<b>Data Interface Tools to Support Environmental Analyses: Interpretation of Existing Marine Mammal Data</b>
47	HE	4	Genomics of Arctic Cod: A Sentinel Species in a Changing Environment
49	PO	5	Cook Inlet Circulation Model Calculations
51	PO/HE	6	Ecological Processes in Lower Cook Inlet and Kachemak Bay: A Partnership in Monitoring
53	HE	7	Benthic Invertebrate Habitats in Cook Inlet
55	MM	8	Polar Bear Habitat Use, Ecology, and Population Status in the Chukchi Sea
57	PO/SE	9	Integrated Seabed Surveys in the Arctic Ocean: Bathymetry, Archaeological Resources, and Ice Gouge Magnitude and Recurrence Rates
61	MM	10	Baleen Whale Distribution, Abundance, and Ecology in Cook Inlet and Shelikof Strait

AQ = Air Quality

IM = Information Management

PO = Physical Oceanography

FE = Fates & Effects

MM = Marine Mammals & Protected Species

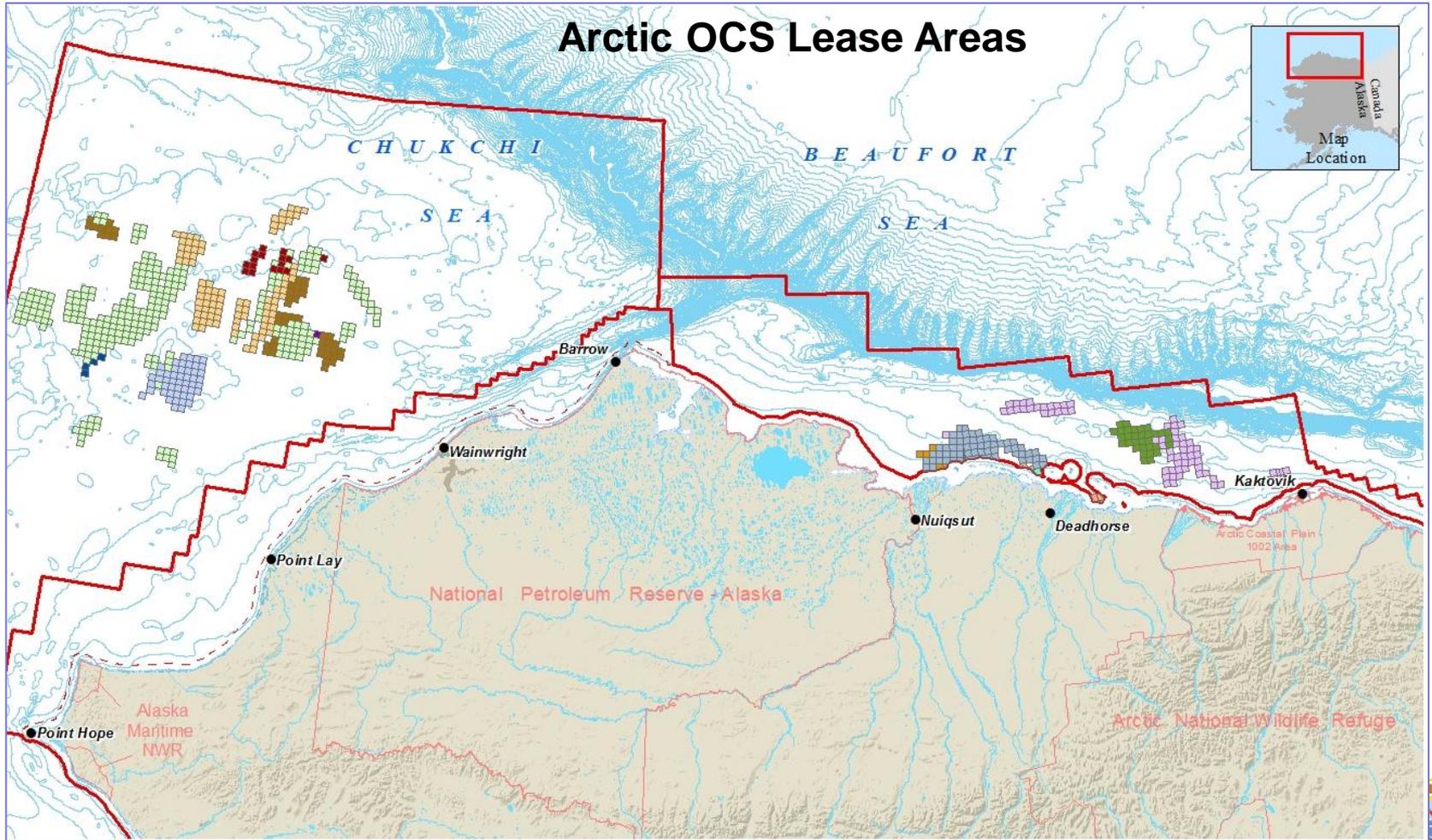
SE = Social & Economic Sciences

HE = Habitat & Ecology

**Alaska OCS Region**

**Tentative Ranking: 3**





Alaska OCS Region

Tentative Ranking: 3



## **BOEM Information Need:**

- NEPA analyses, Chukchi and Beaufort Sea in 2016, 2017
- Endangered Species Act
- Marine Mammal Protection Act
- Additional analysis of existing Marine Mammal data to facilitate complete and accurate interpretation.
- Enhance internal BOEM capacity and speed, particularly interdisciplinary GIS analysis tools

## **Date info Required:**

- 2016, 2017 Arctic Lease Sales, EIS analysis starting 2013
- Annual Ancillary, Exploration, G&G, Development Permits



## Background:

### A) Relationship with Previous Work/Efforts

- BOEM has funded millions of dollars in research in partnership with the National Marine Mammal Lab (NOAA Fisheries), producing large amounts of data related many marine mammal species.
- This study will enhance our current analytical capabilities to integrate this data into NEPA analyses.



## Background:

### **B) Relationship with Concurrent/Future Efforts**

This project will be coordinated with other ongoing BOEM efforts to:

- Supply NEPA analysts with data and GIS analysis tools
- Enhance interdisciplinary integration required for ecosystem level analyses



## **Study's Objectives:**

- Support continuing analysis of existing data and provide statistics and graphics in reports to address information needs of BOEM analysts and managers.
- Analyze existing Arctic marine mammal acoustics data to provide seasonal distribution in the Chukchi and Beaufort seas.
- Integrate aerial survey data with satellite tag data on ice seal movement patterns to infer the seasonal distribution and numbers of ribbon and spotted seals in the Chukchi Sea, and to infer the use of polynyas or lead systems for bearded, spotted, and ribbon seals.
- Delineate important areas for feeding, breeding, pupping, resting, etc. for Arctic marine mammals.



## **Methods:**

- This study will focus on the analysis, write-up, and packaging of existing data on Arctic marine mammals to meet information needs identified by BOEM analysts and managers in the Alaska OCS Region.
- Synthesize and analyze available marine mammal information, including data collected through industry-sponsored research and BOEM-funded projects with the National Marine Mammal Laboratory, will be.
- Include methodologies to account for variable search effort in order to ensure valid and reliable data products.



## Additional *Pertinent* Information

- The primary deliverable of this project will be a dataset suitable for use with GIS applications that can be integrated with other relevant environmental data, such as prey information and oceanographic climatologies.

