

Introduction

The Alaska Fisheries Science Center (AFSC) of the National Marine Fisheries Service (NMFS), National Oceanic & Atmospheric Administration (NOAA), conducts research on marine mammals off the coasts of Alaska, Washington, Oregon, and California. Research projects focus on ecology and behavior, population dynamics, life history, and status and trends. Research results assist NOAA and other agencies in making science-informed decisions for sound management of marine resources. This document is intended to show research planned for the calendar year shown and thus some projects may change in scope and/or timing, or be canceled.

CETACEAN RESEARCH

Marine Mammal Passive Acoustic Recorders

Location Bering, Beaufort, and Chukchi Seas, and Gulf of Alaska

Timing April, May, August – October

Funding NOAA and Alaska Ocean Observing System (AOOS); past funding for this project from the Bureau of Ocean Energy Management (BOEM), U.S. Navy, North Pacific Research Board (NPRB), and the Marine Mammal Commission

Project This project continues 15 years of passive acoustic monitoring in the Alaskan Arctic. Noise levels from anthropogenic sources are also monitored. Most moorings are co-located with long-term oceanographic moorings. Collaborators include NOAA Pacific Marine Environmental Lab, NOAA Resource Assessment and Conservation Engineering, Cornell University, and Department of Fisheries and Oceans Canada.

Contact Catherine.Berchok@noaa.gov

Cook Inlet Beluga Acoustic Monitoring

Location Cook Inlet

Timing May – June, September – October

Funding NOAA, BOEM, ADF&G

Project Passive acoustic recorders will be used in Cook Inlet to identify feeding grounds for the endangered beluga whale population and to characterize potential noise-related disturbance. Recordings will also identify year-round spatial habitat use by other cetaceans such as harbor and Dall's porpoises, and killer whales. This project will maintain thirteen acoustic mooring packages serviced twice per year for its 15th year.

Contact Paul.Wade@noaa.gov

Cook Inlet Beluga Biopsy Study

Location Cook Inlet

Timing August – September

Funding NOAA

Project A boat-based biopsy survey will be conducted to provide information on the sex, genetics, diet, and hormonal status of individual beluga whales. In collaboration with Group for Research and Education on Marine Mammals (GREMM) scientists, blubber samples will be collected using a darting gun. Photographs of each biopsied whale, and associated whales, will be taken and analyzed to identify individuals, which will be matched to the existing photo-ID catalog.

Contact Paul.Wade@noaa.gov

Cook Inlet Beluga Aerial Photogrammetry Study

Location Cook Inlet

Timing August – September

Funding NOAA

Project: Photogrammetry surveys will be conducted to estimate age classes and an index of beluga calf production in late August/early September. A hexacopter uncrewed aircraft system equipped with a high-resolution camera will be used to photograph beluga groups. Individuals will be measured to provide blowhole to dorsal ridge lengths, and whales will be assigned to calf, juvenile, and adult age classes based on relative lengths.

Contact Paul.Wade@noaa.gov

Investigating the Cook Inlet Beluga Behavioral Response to Acoustic Disturbance in Feeding Grounds

Location Upper Cook Inlet

Timing July – August

Funding NOAA, ADF&G

Project Suction cup tags will be deployed on free ranging beluga whales in their main summer feeding ground to characterize their foraging behavior and any responses to exposures of vessel noise. The project aims to better understand feeding habitat preferences, prey selection, and the potential for reduction of foraging opportunities when human disturbance occurs in their feeding grounds.

Contact Manuel.Castellote@noaa.gov

Harbor Porpoise Monitoring

Location Auke Bay, Southeast Alaska

Timing May – August

Funding NOAA

Project: Visual and passive acoustic monitoring will occur in Auke Bay and a nearby control site to evaluate the behavioral response of harbor porpoise to acoustic deterrent devices (pingers) as a potential tool to mitigate bycatch in fisheries in Southeast Alaska.

Contact Kim.Goetz@noaa.gov

Cetacean Assessment in Behm Canal and Southern Clarence Strait

Location Southeast Alaska

Timing January – October

Funding NOAA, U.S. Navy

Project Cetacean occurrence, density, and distribution will be assessed using a vessel survey and passive acoustics.

Contact Robyn.Angliss@noaa.gov

Coastal Aerial Surveys for Harbor Seals

Location Coastal regions of Alaska including Southeast Alaska, Prince William Sound, Central and Western Gulf of Alaska, Aleutian Islands, and Bristol Bay

Timing June (SE Alaska only); August and September

Funding NOAA

Project Aerial photographic surveys will be conducted using fixed-wing aircraft to estimate the distribution and abundance of harbor seals in Alaska. The survey effort will spread across coastal regions of Alaska and focus on harbor seal populations that have not been thoroughly surveyed in the last 3-5 years.

Contact Michael.Cameron@noaa.gov

Steller Sea Lion Aerial Surveys

Location Gulf of Alaska and Aleutian Islands

Timing June – July

Funding NOAA

Project High-resolution aerial photographic surveys of Steller sea lions will be conducted, using crewed and uncrewed aircraft. Sea lion pups, juveniles, and adults hauled out on terrestrial sites in the Gulf of Alaska using crewed aircraft, while uncrewed aircraft associated with a research vessel will be used in the western and central Aleutian Islands. Time series of counts dating from the mid-1970s are used to track overall and regional trends in population abundance to monitor the recovery of the endangered western population.

Contact Tom.Gelatt@noaa.gov

Northern Fur Seal Vital Rates Studies

Location Pribilof Islands

Timing August – November

Funding NOAA

Project University of Washington employees temporarily hired under the Cooperative Agreement will be working with MML staff and volunteers to spend up to 10 weeks on St. Paul and St. George Islands to collect observations of previously marked northern fur seals. This data will be used for studies of northern fur seal demography and vital rates.

Contact Tom.Gelatt@noaa.gov

Northern Fur Seal Population Assessment

Location Bogoslof Island

Timing August

Funding NOAA

Project A crew of scientists will use the USFWS vessel *Tiglax* to access Bogoslof Island for the purpose of using drones to collect aerial imagery of all of the northern fur seal rookeries on the island. The images will be used for a total count of seals on the island.

Contact Tom.Gelatt@noaa.gov

Steller Sea Lion Field Camp-based Studies

Location Ugmaq Island

Timing July

Funding NOAA

Project A chartered helicopter will be used to ferry two researchers to an existing field camp on Ugmaq Island. The researchers will spend 4-5 days surveying and observing marked sea lions for vital rates studies.

Contact Tom.Gelatt@noaa.gov

Uncrewed Surveys of Pinnipeds in the Aleutian Islands

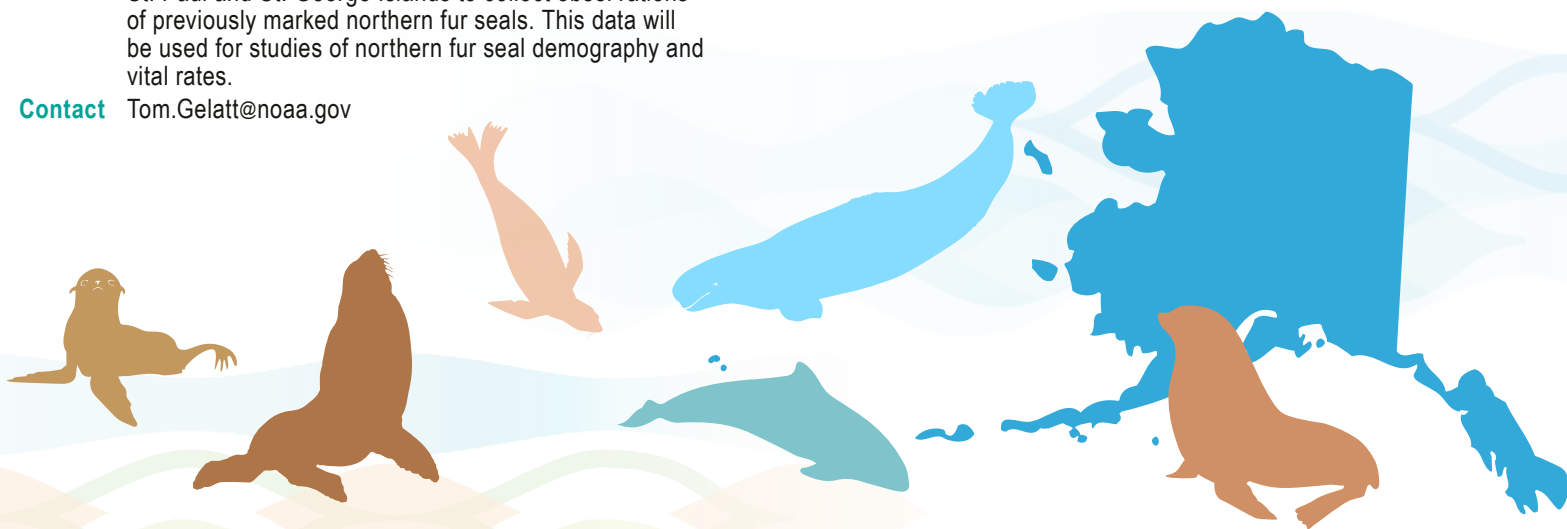
Location Western Aleutian Islands (Attu, Agattu, Alaid, Nizki, and Shemya Islands)

Timing September

Funding NOAA

Project A medium-range, fixed-wing uncrewed aircraft system (UAS) based at Eareckson Air Station, Shemya Island, will be used to survey Steller sea lion and harbor seal sites in the western Aleutian Islands. Our goals are to evaluate the feasibility of transitioning from crewed to uncrewed aerial surveys of pinnipeds in remote parts of Alaska to reduce risks to NOAA personnel and aircraft, and to advance the application of beyond visual line-of-sight UAS operations in the United States.

Contact Michael.Cameron@noaa.gov



For more information on marine mammal research conducted by the Alaska Fisheries Science Center please visit the Alaska Fisheries Science Center's Marine Mammal Laboratory website at: <https://www.fisheries.noaa.gov/about/marine-mammal-laboratory>

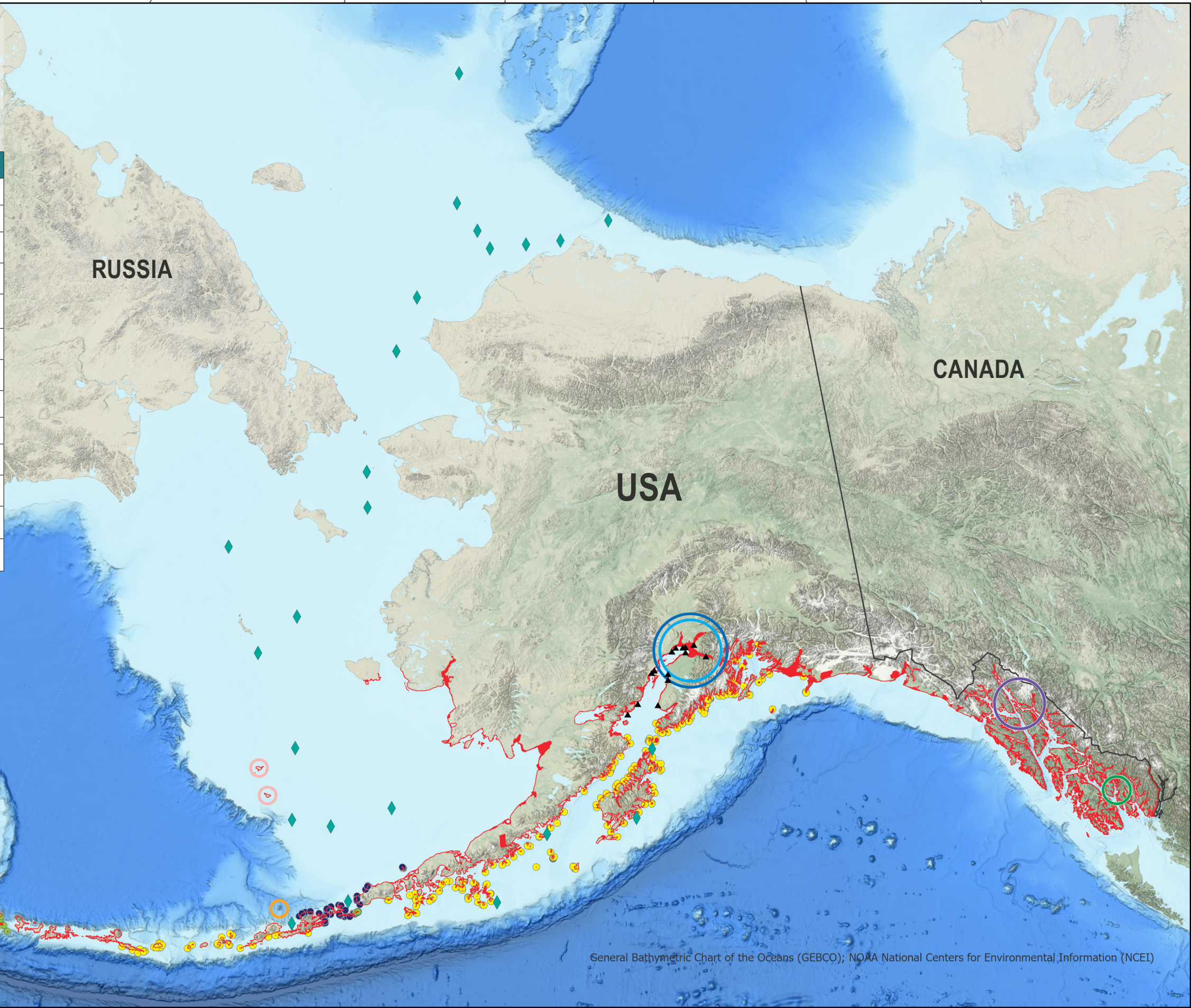
2023



Alaska Fisheries Science Center

2023 Alaska Marine Mammal Field Work

Months in which field work will occur (2023)		M	A	M	J	J	A	S	O	N	
◆	Marine Mammal Passive Acoustic Recorders	✓	✓				✓	✓	✓		
▲	Cook Inlet Beluga Acoustic Monitoring			✓	✓			✓	✓		
○	Cook Inlet Beluga Biopsy Study						✓	✓			
○	Cook Inlet Beluga Aerial Photogrammetry Study						✓	✓			
○	Investigating the Cook Inlet Beluga Behavioral Response to Acoustic Disturbance in Feeding Grounds				✓	✓					
○	Harbor Porpoise Monitoring			✓	✓	✓	✓				
○	Cetacean Assessment in Behm Canal and Southern Clarence Strait	January through October									
■	Coastal Aerial Surveys for Harbor Seals				✓		✓	✓			
●	Steller Sea Lion Aerial Surveys				✓	✓					
○	Northern Fur Seal Vital Rates Studies						✓	✓	✓	✓	
○	Northern Fur Seal Population Assessment						✓				
●	Steller Sea Lion Field Camp-based Studies				✓						
●	Uncrewed Surveys of Pinnipeds in the Aleutian Islands							✓			



General Bathymetric Chart of the Oceans (GEBCO); NOAA National Centers for Environmental Information (NCEI)