CETACEAN RESEARCH

Marine Mammal Passive Acoustic Recorders

Location Bering and Chukchi Seas
Timing May, August, September
Funding NOAA, Bureau of Ocean Energy Management (BOEM), North Pacific Research Board (NPRB)
Project This continues over a decade of passive acoustic monitoring of marine mammals in the Alaskan Arctic and Bering Sea. Long-term passive acoustic recorder moorings have been distributed throughout the main migratory pathways and in wintering and summering grounds of many Arctic and subarctic marine mammals, and also monitor noise levels from anthropogenic sources. 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 Aerial Surveys

Location Cook Inlet
Timing November 2018, March 2019
Funding NOAA
Project Aerial surveys will be conducted to estimate winter distribution of belugas in November 2018 and March 2019. Tracklines are flown along the entire coast north of Augustine Island and sawtooth tracklines cross the inlet. Observations will be compared to passive acoustic recordings obtained year-round at set locations within the inlet.
Contact Kim.Shelden@noaa.gova

Cook Inlet Beluga Aerial Photogrammetry

Location Cook Inlet
Timing August – September
Funding NOAA
Project
Project: Photogrammetry surveys will be conducted to estimate age classes and an index of beluga calf production in late August/early September. A hexacopter UAS 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

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 (for stress, pregnancy, sexual maturity, etc.) of individual beluga whales. In collaboration with 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 LGL photo-identification catalogue.
Contact Paul.Wade@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

Cook Inlet Beluga Acoustic Monitoring

Location Cook Inlet
Timing May – June, September – October
Funding NOAA
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 eleven acoustic mooring packages serviced twice per year.
Contact Paul.Wade@noaa.gov

Aerial Surveys of Arctic Marine Mammals

Location Eastern Chukchi and Western Beaufort Seas
Timing July – October
Funding NOAA, Bureau of Ocean Energy Management (BOEM)
Project The Aerial Surveys of Arctic Marine Mammals (ASAMM) project conducts aerial surveys for marine mammals in the Beaufort and Chukchi seas. Data from these surveys are used to provide real – time data on marine mammal distribution, relative abundance, habitat use, and behavior.
Contact Megan.Ferguson@noaa.gov

Bowhead Whale Abundance Aerial Survey

Location Northeastern Chukchi Sea, Beaufort Sea, and Amundsen Gulf
Timing August
Funding NOAA, Bureau of Ocean Energy Management (BOEM), North Slope Borough Department of Wildlife Management
Project The objective of this aerial survey project is to collect data to derive a new estimate of abundance for the Bering-Chukchi-Beaufort (BCB) stock of bowhead whales. The primary study area represents known core habitat for this stock of bowhead whales, and will be the priority region where survey effort will focus. BCB bowhead whales are known to occur in the secondary study area, although likely in lower densities than in the primary study area and, therefore, the secondary area will be a lower survey priority.
Contact Megan.Ferguson@noaa.gov

Ship-based Survey for Harbor Porpoise in Southeast Alaska

Location Inside waters of Southeast Alaska from Dixon Entrance to Glacier Bay
Timing July
Funding NOAA
Project The survey is aimed at estimating abundance of harbor porpoise in Southeast Alaska, and to collect water samples in the vicinity of harbor porpoise for environmental DNA analysis to address population structure.
Contact Phillip.Clapham@noaa.gov

IWC Pacific Ocean Whale and Ecosystem Research Survey

Location Northern Gulf of Alaska
Timing July 15 – Sept 15
Funding International Whaling Commission, Government of Japan
Project The International Whaling Commission (IWC), with the Government of Japan and NOAA, is conducting a collaborative marine mammal survey, the Pacific Ocean Whale and Ecosystem Research (POWER) survey of the northern Gulf of Alaska, from 170° W to 135° W, within the US EEZ, using standard line transect surveys to obtain cetacean abundance estimates. Passive acoustic monitoring using sonobuoys will also be conducted to monitor for vocalizing marine mammals, with a focus on the detection and localization of the critically endangered North Pacific right whale. This survey may be deferred until 2020, depending on permit issues.
Contact Phillip.Clapham@noaa.gov, Jessica.Crance@noaa.gov

Alaska Fisheries Science Center
2019 Alaska Marine Mammal Field Work

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.

PINNIPED RESEARCH

Harbor Seal Aerial Surveys

Location Iliamna Lake and Aleutian Islands
Timing July – September
Funding NOAA
Project Aerial photographic surveys will be conducted using manned aircraft to estimate the distribution and abundance of harbor seals in Alaska. Survey effort will focus on at-risk harbor seal populations that represent especially small or reduced stocks with very limited data (e.g., Iliamna Lake and the central and western Aleutian Islands).
Contact Peter.Boveng@noaa.gov

Steller Sea Lion Vessel-based Studies

Location Eastern Aleutian Islands and Western and Central Gulf of Alaska
Timing July
Funding NOAA
Project To estimate survival, reproductive rates, and movements of Steller sea lions, direct observations of sea lions will be made in the eastern Aleutian Islands and western and central Gulf of Alaska.
Contact Tom.Gelatt@noaa.gov

Testing Equipment for Surveying Ice-associated Seals and Polar Bears

Location Chukchi Sea (based out of Kotzebue)
Timing April
Funding NOAA, USFWS
Project Test flights of a new multispectral (i.e., infrared, visual, ultraviolet) image collection system to determine how well the system can detect and record ice-associated seals and polar bears on sea ice. These flights are in preparation for large scale aerial surveys of the Beaufort Sea planned for 2020 in cooperation with Canadian researchers.
Contact Peter.Boveng@noaa.gov

Testing Equipment for Surveying Harbor Seals in Glacial Fjords

Location Various sites in Prince William Sound, Icy Bay and Disenchantment Bay where harbor seals utilize glacial ice for hauling out (based out of Yakutat)
Timing August
Funding NOAA
Project Test flights of a new multispectral (i.e., infrared, visual, ultraviolet) image collection system to determine how well the system can detect and record harbor seals hauled out on glacial ice. If the system performs well, it will replace our current method that utilizes only visual imagery.
Contact Peter.Boveng@noaa.gov

Steller Sea Lion Vessel-based Studies

Location Western and Central Aleutian Islands
Timing June – July
Funding NOAA
Project To estimate survival, reproductive rates, and movements of Steller sea lions, direct and indirect (from remote camera installations) observations of sea lions will be made in the western and central Aleutian Islands west of Adak, Alaska. An unmanned aerial system will be used to supplement manned aircraft aerial surveys to obtain sea lion counts for determining abundance and distribution. Steller sea lion pups will be captured, marked for the vital rates study, and sampled for studies of condition and contaminants burden.
Contact Tom.Gelatt@noaa.gov

Steller Sea Lion Aerial Surveys

Location Southeast Alaska and Eastern Gulf of Alaska
Timing June – July
Funding NOAA
Project High-resolution aerial photographic surveys of Steller sea lions will be conducted using manned and unmanned aircraft during the peak of the breeding season. Sea lion pups, juveniles, and adults hauled out on terrestrial sites will be surveyed throughout the eastern Gulf of Alaska and Southeast Alaska using manned aircraft, while unmanned aircraft will be used in the central-western Aleutian Islands. Time series of counts dating from the mid-1970s are used to track overall and regional trends in population abundance to monitor recovery of the endangered western population.
Contact Tom.Gelatt@noaa.gov

Northern Fur Seal Demographic and Foraging Studies

Location Pribilof Islands and Bogoslof Island
Timing June – August
Funding NOAA
Project On the Pribilof Islands, counts of adult male fur seals will be conducted to assess status and trends of the Eastern Pacific stock. Fur seals will be observed to determine demographic mechanisms underlying ongoing population declines. Some fur seals will be outfitted with satellite-linked instruments to collect movement and diving behavior data in conjunction with Saildrone at-sea surveys. Pup production will be estimated on Bogosof Island with operations based off a research vessel, the first study to be conducted since the 2016-2017 volcanic eruption event that completely changed the island topography.
Contact Tom.Gelatt@noaa.gov

NOAA FISHERIES

Alaska Fisheries Science Center

2019 Alaska Marine Mammal Field Work

Months in which field work will occur (2019)	M	A	M	J	J	A	S	O
Harbor Seal Aerial Surveys					✓	✓	✓	
Steller Sea Lion Vessel-based Studies - GOA					✓			
Testing Equipment for Surveying Ice-associated Seals and Polar Bears		✓						
Testing Equipment for Surveying Harbor Seals in Glacial Fjords						✓		
Steller Sea Lion Vessel-based Studies				✓	✓			
Steller Sea Lion Aerial Surveys				✓	✓			
Steller Sea Lion Unmanned Aerial Surveys (UAS)				✓	✓			
Northern Fur Seal Demographic and Foraging Studies				✓	✓	✓		
Marine Mammal Passive Acoustic Recorders	✓					✓	✓	
Cook Inlet Beluga Aerial Surveys	*November 2018, March 2019*							
Cook Inlet Beluga Biopsy and Photogrammetry Study						✓	✓	
Cook Inlet Beluga Acoustic Monitoring			✓	✓			✓	✓
Aerial Surveys of Arctic Marine Mammals					✓	✓	✓	✓
Primary Bering Chuckchi Beaufort Bowhead Whale Abundance Study						✓		
Secondary Bering Chuckchi Beaufort Bowhead Whale Abundance Study						✓		
Southeast Alaska Harbor Porpoise Vessel Study					✓			
IWC Pacific Ocean Whale and Ecosystem Research Survey					✓	✓	✓	

RUSSIA

USA

CANADA

135°E 150°E 165°E 180° 165°W 150°W 135°W 120°W 105°W 90°W

60°N 55°N 50°N 45°N

65°N 60°N 55°N 50°N

180° 165°W 150°W 135°W

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