NOAA FISHERIES Alaska Fisheries Science Center
2015 Marine Mammal Field Work

	Survey	May	June	July	Aug.	Sep.	Oct.
	Steller Sea Lion Land-based Studies						
	Northern Fur Seal Studies						
	Steller Sea Lion Aerial Survey						
	Steller Sea Lion Vessel-based Studies						
	Harbor Seal Aerial Surveys						
	Harbor Seal Vessel-based Studies						
	SE Alaska Harbor Porpoise Research						
	Killer Whale Predation Studies						
	Arctic Marine Mammals Aerial Surveys						
	Gray Whales Unmanned Aircraft Surveys						
	Marine Mammal Passive Acoustic Recorders						

Beaufort Sea
Chukchi Sea
Bering Sea
Gulf of Alaska
Aleutian Islands

165°E 180° 165°W 150°W 135°W 120°W
60°N
50°N

Source: Esri,DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP swisstopo, and the GIS User Community.

Alaska Fisheries Science Center 2015 Marine Mammal Field Work

Introduction

The Alaska Fisheries Science Center (AFSC) of the National Oceanic & Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS), 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

Northern Fur Seal Studies

Location	Pribolof Islands and Bogoslof Island
Timing	June - October
Funding	NOAA/AFSC
Project	Counts of adult male fur seals on the Pribilof Islands and of pups on Bogoslof Island will be used as part of an overall assessment of the status and trends of the Eastern Pacific stock. Tagged fur seals will be observed to determine demographic mechanisms underlying ongoing population declines. Fur seals will be captured and outfitted with satellite-linked instruments and sampled to assess health status. Scats will be collected to examine patterns of prey consumption.
Contact	Tom.Gelatt@noaa.gov

Harbor Seal Aerial Surveys

Location	Coastal Alaska haulouts
Timing	August - September
Funding	NOAA/AFSC
Project	Aerial photographic surveys will be conducted to estimate the distribution and abundance of harbor seals in Alaska. The statewide harbor seal range will be sampled, with highest priority on areas with the highest densities of seals, areas where seal abundance is known to be declining, and areas where existing data are sparse (e.g., western Aleutians).
Contact	Peter.Boveng@noaa.gov

Harbor Seal Vessel-based Studies

Location	Aleutian Islands
Timing	September - October
Funding	NOAA/AFSC
Project	Harbor seals will be instrumented with satellite-linked tags to study the seals' seasonal movements, foraging ecology, and dive behavior. Small boats based off of a charter vessel will provide access to the haul out sites on land.
Contact	Peter.Boveng@noaa.gov

Steller Sea Lion Aerial Survey

Location	Gulf of Alaska and Aleutian Islands
Timing	June - July
Funding	NOAA/AFSC
Project	Conduct a high resolution aerial photographic survey, using manned aircraft, of Steller sea lion pups, juveniles, and adults hauled out on terrestrial sites throughout southeast Alaska, Gulf of Alaska, and the eastern Aleutian Islands during the peak of the breeding season. Time series of counts dating from the mid-1970s are used to track overall and regional trends in population abundance for the two stocks of Steller sea lion in Alaska, and to monitor recovery of the endangered western Steller sea lion population.
Contact	Tom.Gelatt@noaa.gov

Steller Sea Lion Vessel-based Studies

Location	Gulf of Alaska and Aleutian Islands
Timing	June - July, September - October
Funding	NOAA/AFSC
Project	To estimate survival and reproductive rates and movements of sea lions, direct and indirect (from remote camera installations) observations will be made; in the western Aleutian Islands pups will also be marked at two rookeries. An unmanned aerial vehicle will be used to assess sea lion abundance and distribution to supplement manned aircraft aerial surveys. Scats will be collected to investigate diet. During September-October in the western-central Aleutian Islands, adult female sea lions will be captured to attach satellite-linked instruments that track movements and diving behavior.
Contact	Tom.Gelatt@noaa.gov

Steller Sea Lion Land-based Studies

Location	Gulf of Alaska and Aleutian Islands
Timing	May - July
Funding	NOAA/AFSC
Project	Observe sea lions at Marmot Island and Ugamak Island rookeries to estimate and monitor vital rates (survival and natality), breeding behavior and phenology, and movements of Steller sea lions. The determination of changes in rates of survival, reproduction, or emigration/immigration is fundamental to understanding potential causes of the Steller sea lion declining abundance in Alaska and provides a mechanism to assess its recovery.
Contact	Tom.Gelatt@noaa.gov

CETACEAN RESEARCH

SE Alaska Harbor Porpoise Research

Location	Inland waters of southeast Alaska
Timing	14-day project in June or July
Funding	NOAA/AFSC
Project	Abundance and trend surveys will be conducted to investigate harbor porpoise stock structure. A 14-day vessel-based sighting survey will be conducted in June or July. During this survey, biopsy sampling and/or satellite tagging may be conducted in the high density areas of Icy Strait and Wrangell/Zarembo Islands to study stock structure.
Contact	Phillip.Clapham@noaa.gov

Killer Whale Predation Studies

Location	Central and western Aleutian Islands
Timing	June - July 2015
Funding	NOAA/AFSC, Pollock Conservation Cooperative Research Center (PCCRC), North Pacific Fisheries Foundation (NPFF)
Project	This field work will deploy LIMPET SPLASH satellite tags to track transient killer whale movements and diving behavior. Passive acoustic recorders will be deployed to monitor killer whale occurrence around Steller sea lion rookeries. Biopsy samples from killer whales and samples from potential prey will be analyzed for stable isotopes to evaluate killer whale prey.
Contact	Phillip.Clapham@noaa.gov

Arctic Marine Mammals Aerial Surveys

Location	Northeastern Chukchi and Western Beaufort Seas
Timing	July - October
Funding	NOAA, Bureau of Ocean Energy Management (BOEM)
Project	The BOEM-funded 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	Phillip.Clapham@noaa.gov

Gray Whale Unmanned Aircraft Surveys

Location	Chukchi Sea
Timing	Mid-August to mid-September
Funding	NOAA, Bureau of Ocean Energy Management and Office of Naval Research (ONR)
Project	This jointly-funded project is designed as a proof of concept field effort. This project will assess the conditions under which unmanned aircraft systems (UAS) can be used effectively to survey for gray whales. Surveys will be conducted out of Wainwright using both manned and unmanned aircraft. Data from each type of survey will be compared.
Contact	Phillip.Clapham@noaa.gov

Marine Mammal Passive Acoustic Recorders

Location	Unimak Pass to Point Barrow, Alaska
Timing	September - October
Funding	NOAA, Bureau of Ocean Energy Management
Project	This BOEM-funded field work combines the Arctic Whale Ecology Study (ARCWEST) and the Chukchi Acoustics, Oceanography, and Zooplankton Study: Hanna Shoal (CHAOZ-X) projects. Data collected include measurements of marine mammal acoustics, oceanography, and zooplankton. ARCWEST investigates the transport of cetacean prey north from the Bering Strait as well as cetacean distribution and abundance. CHAOZ-X investigates the circulation of water and the abundance of large planktonic prey around Hanna Shoal. Collaborators: NOAA's Pacific Marine Environmental Lab and Cornell University (CHAOZ-X only).
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For more information on marine mammal research conducted by the Alaska Fisheries Science Center please visit the Center's National Marine Mammal Laboratory website at: http://www.afsc.noaa.gov/nmml/