

National Marine Fisheries Service Alaska Fisheries Science Center

Research Brief

Pacific Marine Assessment Program for Protected Species (PacMAPPS)

August 1 - 26, 2021



Map showing the expected locations of vessel transects in the Gulf of Alaska on the PacMAPPS cruise. Vessel tracklines are in white; the shelf and slope strata boundaries are outlined in red; the circle is the location of a passive acoustics mooring in North Pacific right whale critical habitat that will be serviced during the cruise. Water samples and fine scale vertical oceanographic data will be collected at the end of each days' effort.

Who is conducting the research?

This project is jointly supported by NOAA Fisheries and the U.S. Navy. Field participants include scientists from the Alaska Fisheries Science Center's (AFSC) Marine Mammal Laboratory (MML), a graduate student affiliated with NOAA's Pacific Marine Environmental Lab, and marine mammal observers working for Lynker and MarEcoTel. The team will be aboard the NOAA ship Oscar Dyson. Data will be analyzed by MML, MarEcoTel, and U.S. Navy staff.

What is the research objective?

The overall research objective is to conduct a linetransect survey in the Gulf of Alaska to assess distribution, and estimate density, and regional abundance of cetaceans, including humpback whales, fin whales, killer whales and North Pacific right whales, one of the most endangered whale populations in the world. Collection of imagery and biopsy samples will provide information on stock structure for key species such as North Pacific right, humpback, fin and killer whales. Passive acoustics will be used to monitor for vocalizing and visually cryptic marine mammals. Basic oceanographic information will be collected throughout the survey, water samples will be collected every evening and active acoustics will be used to estimate the density of potential cetacean prey (krill and forage fish).

Where is the research being conducted?

The survey will begin and end in Kodiak, AK. Survey effort (~3,300km) will be distributed equally in the shelf and slope areas.

Why are the data important? How will data be used?

This will be the first dedicated survey focused on cetacean abundance in this area since 2015. The data collected during these surveys will be used to inform marine mammal stock assessment reports and will be used by NOAA Fisheries, the U.S. Navy, and other agencies to understand potential impacts of anthropogenic activities, including climate change, on cetaceans in this area.

Schedule for the 2021 PacMAPPS marine mammal density, abundance and distribution cruise

Science team flies to Kodiak, AK	July 19
7-day Shelter-in-Place and COVID-19 testing in Kodiak	July 19-26
Science Team boards ship and enters "bubble" in Kodiak	July 28
Loading for cruise occurs on the dock within the "bubble"	July 28-31
Survey operations begin	August 1
Survey operations end in Kodiak, offload and demobilize gear	August 26
Science Team travels Kodiak-Seattle by air	August 26-27
Science Team post-travel SIP	August 26-Sept 3

What steps are you taking to prevent spread of COVID-19?

- Scientists shelter-in-place for 7 days upon arrival in Kodiak, take two COVID-19 test prior to boarding the survey vessel.
- Crew and scientists self-monitor for COVID symptoms during the survey and follow rules regarding personal infection controls (masking, hygiene, distance where possible, etc.) and disinfection of surfaces while aboard.
- All hands aboard the vessel maintain a 'bubble' of isolation from outside contact until the survey is completed.
- All crew and scientists restrict activities 7 days after travel before resuming work activities

How do you plan to communicate research results? (e.g., outreach document, webstory, radio interview, community meeting, etc.)

A short written summary of preliminary results will be available within 6 months after the survey end. Final results will also be presented at conferences (e.g., Alaska Marine Science Symposium), symposiums, and seminars, and research meetings.



Contacts: Robyn Angliss, <u>Robyn.Angliss@noaa.gov</u> (MML PI) Jessica Crance, <u>Jessica.Crance@noaa.gov</u> (Cruise leader and MML PI) Kim Goetz, <u>Kim.Goetz@noaa.gov</u> (MML PI) Alex Zerbini, <u>Alex.Zerbini@noaa.gov</u> (UW PI)



U.S. Secretary of Commerce Gina M. Raimondo

Under Secretary of Commerce for Oceans and Atmosphere & NOAA Administrator Richard W. Spinrad

Assistant Administrator for Fisheries Janet Coit

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Alaska Fisheries Science Center 7600 Sand Point Way Seattle, WA 98115