

National Marine Fisheries Service Alaska Fisheries Science Center

Research Brief

2021 Cook Inlet Beluga Whale Aerial Abundance Survey

June 7 – July 2, 2021



Map showing the overall working area for the Cook Inlet beluga whale aerial abundance survey. The survey aircraft will follow a series of offshore tracklines and conduct a complete survey of the shoreline of Cook Inlet north of Augustine Island. This project began in 1994 and occurred annually each June until 2012 when a biennial schedule was adopted. Due to the pandemic the 2020 survey was postponed until June 2021.

Who is conducting the research?

Scientists from the Alaska Fisheries Science Center's Marine Mammal Lab, and University of Washington, Cooperative Institute for Climate, Ocean, & Ecosystem Studies.

What is the research objective?

The overall research objective is to obtain an abundance estimate for the endangered population of beluga whales in Cook Inlet, Alaska. This is achieved by locating and counting each group of beluga whales encountered within Cook Inlet. When a group is observed, the aircraft breaks from the survey track and begins a series of passes alongside the beluga group to allow observers to count and video the group multiple times. These counts are then corrected for whales that may have been missed because they were below the surface or surfaced close to another whale during a counting pass.

Where is the research being conducted?

The survey will begin and end in Anchorage, AK. The primary operating area is the coast and offshore waters of Cook Inlet with focused effort in the upper inlet where whales congregate during the summer months.

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

These data are used to provide an estimate of abundance and to document habitats currently used by this endangered population. Estimates have been collected since 1994 and are used to look at the population trend, whether it is increasing, declining, or stable. Locations of groups are also compared across years to see if this population is beginning to reoccupy past habitats. Currently the population has contracted into the upper most regions of the inlet during the summer months.

Schedule for the 2021 Cook Inlet Beluga Aerial Abundance Survey

14-day Seattle-based Shelter In Place (SIP) and COVID- 19 testing begins	May 24
Science Team flies to Anchorage, AK, by Commercial Airline	June 7
14-day SIP and COVID-19 testing	June 7 - 20
Science Team begins aerial surveys	June 21
Daily flights occur using Charter Aircraft with pilots who also 14-day SIP prior to survey	June 21 – July 1
Survey operations end, Science Team travels Anchorage-Seattle by Commercial Airline	July 2
Science Team post-travel SIP	July 2 - 16

What steps are you taking to prevent spread of COVID-19? (bulleted list, cite only high level activities from SOP)

- Crew and scientists shelter-in-place for 14 days before flying, for 14 days upon arrival at the port of embarkation, and take two COVID-19 tests prior to beginning the survey.
- 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 maintain a 'bubble' of isolation from outside contact until the survey is completed.
- All crew and scientists shelter-in-place for 7-14 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.)

The project PIs will present their results virtually to interested members of Alaskan communities and the public. A short written summary of preliminary results will be available to the public after the survey ends. Final results will be presented at conferences (e.g., Alaska Marine Science Symposium), seminars, research meetings, and published in an AFSC Processed Report.

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