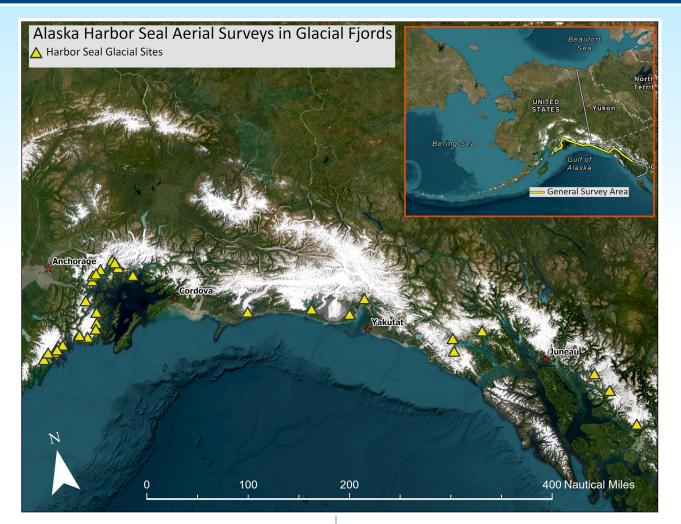


National Marine Fisheries Service

Research Brief

2024 Aerial Survey of Harbor Seals in Glacial Fjords

August 2024



Who is conducting the research?

Scientists from NOAA Fisheries' Alaska Fisheries Science Center and the University of Washington's Cooperative Institute for Climate, Ocean, and Ecosystem Studies will be conducting the research.

What is the objective?

The objective of this research is to obtain counts of harbor seals that inhabit glacial fjord habitats in Alaska. Counts of harbor seals are incorporated into estimates of abundance, which are needed to monitor the status and trends of harbor seal populations in the state.

Where is the survey area and how are data collected?

The survey area includes glacial fjord habitats from the Kenai Peninsula to Southeast Alaska. Surveys will occur during August when harbor seals haul out to molt. The molting period also coincides with surveys of harbor seals in Alaska that have been conducted by NOAA Fisheries on a nearly annual basis for the past 30 years.

The aerial surveys will be conducted using a NOAA Twin Otter, at altitudes from 1,000 to 4,000 ft. Data will be collected with a belly-mounted system of cameras that capture both high-resolution, color and infrared imagery. Machine learning models will then be applied to the imagery to determine counts of seals in these habitats.

See estimated timetable on back

Timetable. Proposed Operations

Survey team arrives in Anchorage	1-4 August
Aerial surveys staged from Anchorage	5-13 August*
Aerial surveys staged from Yakutat	14-19 August*
Aerial surveys staged from Sitka	20-27 August*
Survey team departs from Sitka	28 August

* Dates may shift depending on weather and survey progress.

Why are the data important?

Harbor seals play a vital role in monitoring the impact of climate change on coastal marine environments in the northern hemisphere. These animals are the most widespread pinnipeds in the North Pacific and they inhabit major marine ecosystems in Alaska. Harbor seals serve as important subsistence and cultural resources for Alaska Native communities and they are ideal for monitoring ecosystem changes and human activities due to their year-round presence along the coast.

This is especially true for harbor seals that rely on floating ice within glacial fjord habitats of Alaska where reductions in the extent of glacial ice have been observed. Reductions in glacial ice leads to less floating ice for harbor seals to rest on and raise their pups.

How do you plan to communicate survey results?

The Marine Mammal Laboratory will prepare a report summarizing the results of the survey. The report will be made available to the public online, and results will be presented at conferences, seminars, and research meetings.

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