



Alaska Department of Fish and Game Wildlife Conservation Division

Harbor Porpoise Research
in Southeast Alaska

May 17 – June 30

Why are harbor porpoise being studied?

Harbor porpoises are common in Southeast Alaska's Inside Passage. However, relatively little is known about harbor porpoise, and potential threats to the species are raising concerns. Harbor porpoises in various areas of Southeast Alaska may be genetically distinct with existing data suggesting limited interbreeding between groups, as well as limited migration and movement patterns across the region. How harbor porpoises are defined as separate populations, or stocks, affects how the species is protected and managed.

In 2023, NOAA Fisheries split the once single Southeast Alaska stock of harbor porpoise into three stocks – a decision made following findings of fluctuating porpoise numbers, distribution patterns, and genetic differences between northern and southern Southeast Alaska inland waters and offshore regions. Management actions are directed at specific populations that may have implications on fisheries. State Biologists seek to assess porpoise population numbers, habitat use, and genetic relatedness to provide contemporary population size estimates.



A harbor porpoise leaps from the water in Southeast Alaska. *NOAA Fisheries*

Who is conducting the study?

Wildlife Biologists from the Alaska Department of Fish and Game (ADF&G), Wildlife Conservation Division's Marine Mammal Program.

What data will be collected?

The ADF&G research team, along with specialists from Owyhee Air Research, will conduct aerial surveys from a specialized fixed-wing aircraft equipped with an infrared camera. Data will be collected on harbor porpoise abundance, group size, and location. Data will also be collected on other marine mammal species during opportunistic encounters.



Owyhee Air Research twin-engine Partenavia P68 specialized survey aircraft N17ZX. *Owyhee Air Research*



In early June, the team will begin vessel-based surveys in southern Southeast Alaska from a 78-foot liveaboard vessel, and a 22-foot skiff equipped with a viewing platform to assess how vessel size may impact porpoise detection rates.

During vessel-based surveys, the team plans to launch small Unmanned Aerial Systems, or drones, to collect additional aerial footage that will help to assess group size and document animal behavior.

Animals within a region can often be identified by their genetic profile, as evidence indicates harbor porpoises from southern Southeast Alaska are genetically differentiated from porpoises in the northern area. Biologists will gather genetic material from seawater samples obtained from fluke prints, or “tracks” left on the surface of the ocean when a marine mammal surfaces to breathe. This environmental DNA will be used to identify individual animals and to assess their relatedness.

When and where will the study take place?

Aerial surveys will take place between May 17 and June 30. Survey routes will follow pre-defined tracklines throughout Southeast Alaska inland waters. The research crew will be based out of Juneau and Petersburg depending on the region being surveyed to reduce transit time and maximize survey effort.

In tandem with aerial surveys, vessel-based surveys will be conducted between June 5-13 in areas of southern Southeast Alaska. Vessel surveys will collect species occurrence and count data along similar tracklines using a traditional observer approach as well as drones. Environmental DNA samples will be opportunistically obtained throughout the study area and season.

How will the data be used?

State Biologists seek to assess harbor porpoise population numbers, habitat use, and genetic relatedness to provide contemporary population size estimates. This data will enhance our knowledge of harbor porpoise presence and movement in Southeast Alaska, which will allow for a greater understanding of the marine ecosystem of the region and contribute new data on harbor porpoise distribution and relatedness to resource managers.

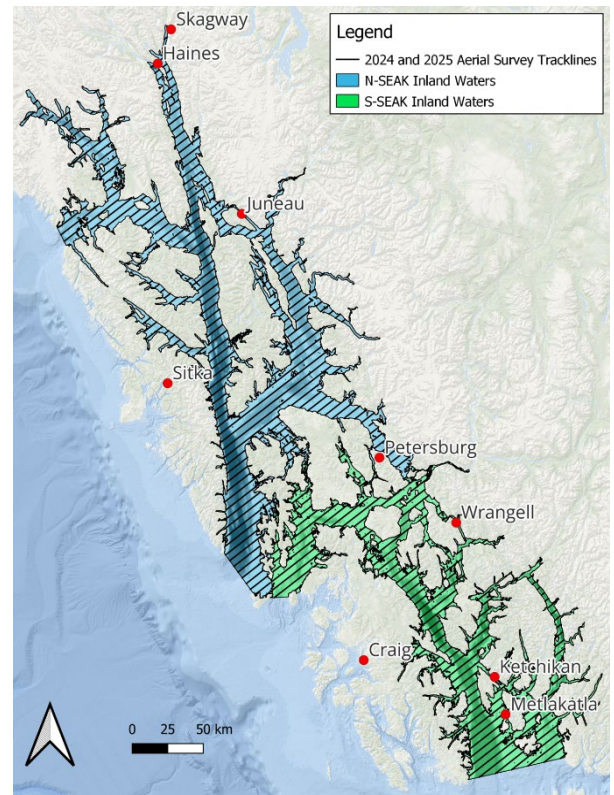
How will the research results be shared?

Research results will be academically reviewed and published on the ADF&G website and will be accessible to the public. Specific data can be made available upon request.

For more information about harbor porpoise, visit the ADF&G website:

<https://www.adfg.alaska.gov/index.cfm?adfg=harborporpoise.main>

Research authorized under NOAA permit: NMFS APPS No. 27993 and NMFS Permit No. 24359.



Aerial survey tracklines and inland population regions in Southeast Alaska. ADF&G

