Research Brief

2023 Summer Acoustic-Trawl Survey of Walleye Pollock in the Gulf of Alaska

May 31 -Aug 20, 2023

Project Description: The Midwater Assessment and Conservation Engineering Program (MACE) of the Alaska Fisheries Science Center conducts biennual acoustic-trawl stock assessment surveys in the Gulf of Alaska during summer to estimate the distribution and abundance of age-1+ walleye pollock. Previous surveys have typically covered the shelf from the Islands of Four Mountains to Yakutat Trough as well as the Shumagin Islands, Shelikof Strait, Chiniak Trough, Barnabas Trough, Resurrection Bay, Prince William Sound, and other small bays. These surveys occurred during the summers of 2003, 2005, and every other year since 2011. Survey-related research is also conducted. This summer between June 29 –July 22, the DriX unscrewed surface vehicle (USV) will be tested. The primary goal is to determine if the USV can be routinely deployed, recovered, and refueled from the ship quickly enough so that it can make some of the acoustic measurements while keeping up with the survey ship during a routine acoustic-trawl survey. Results of the pollock survey are used to inform fish stock assessment models and catch allocation.

Who is conducting the research?

Scientists from the Alaska Fisheries Science Center's MACE Program, assisted by fisheries observers from A.I.S., Inc., aboard the NOAA ship *Oscar Dyson*.

What is the research objective?

To estimate the abundance and distribution of age-1+ walleye pollock over the shelf and in regions of the Gulf of Alaska using acoustics and targeted trawling on acoustic backscatter, to inform fish stock assessment models and catch allocation.



Islands of Four Mountains

Survey tracklines across the GOA shelf and select bays and troughs. DriX testing will occur around Kodiak Island.

Why are these data important? How will it be used?

Data from the GOA acoustic-trawl surveys provide estimates of pollock numbers and biomass by length and age, environmental observations, and observations on other species in the water column.

These are key ingredients and environmental indicators for the Gulf of Alaska Stock Assessment and Fisheries Evaluation and Ecosystem reports provided by GOA Plan Teams to the North Pacific Fishery Management Council for science-based management of the pollock fishery.

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Schedule for the 2023 GOA Summer Walleye Pollock Survey

Scientists arrive in Kodiak, AK	May 28
Begin survey mobilization in Kodiak, AK	May 29
Embark scientific party, survey vessel departs Kodiak, AK and calibration of shipboard acoustics	May 31
Transit to start of survey (near Islands of Four Mountains)	June 1-2
Acoustic-trawl survey of the GOA shelf, shelf break, and bays	June 2 –Aug 18
DriX sea trials (interspersed during acoustic-trawl survey ops)	June 29 –July 21
Begin transit from end of survey (near Yakutat, AK) to Kodiak, AK	Aug 18
Calibration of shipboard acoustics	Aug 19
Arrive Kodiak, AK	Aug 20
Unload scientific gear, disembark scientific party	Aug 20-22



- •General and Vessel Specific AFSC SOPs for Fieldwork for FY 23.
- Antigen testing prior to travel with negative result.
- •Masks, hand-washing, and social distancing as possible during travel.
- •3-day reduced contact period at port of embarkation.
- •Pre-boarding testing on day of embarkation with negative result.
- Continual daily monitoring of symptoms, rapid testing as needed.

How do you plan to communicate research results?

A short written summary of preliminary results will also be available to the public after the survey end. Final results will be presented at the September 2023 Gulf of Alaska Plan Team meetings hosted by the North Pacific Fishery Management Council and AFSC.

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