# Research Brief

## Bottom Trawl Survey of the Northern Bering Sea

August 1st - 28th 2025



## Who is conducting the research?

Scientists from the Alaska Fisheries Science Center will be leading the survey effort, with participation from the International Pacific Halibut Commission (IPHC) and regional universities.

## What are you sampling and where?

We plan to sample bottom-dwelling fishes, crabs, and other marine life on two chartered fishing vessels, *FV Alaska Knight* and *FV Northwest Explorer*, in the northern Bering Sea during August 2025 (see Figure and Table). In total, about 1.75 sq. nautical miles or 0.003% of the total area of the northern Bering Sea will be sampled. Trawls will be conducted in bottom depths ranging from 35 to 260 feet (11-79 m); the closest stations are 6 nautical miles from shore

## What is the research objective?

The objectives of this survey are to understand and monitor the effects of changing sea ice cover and water temperature on bottom-dwelling fishes, crabs, and other marine life along the northern Bering Sea shelf.

## What kind of gear will be used?

Sampling will be done using the 83/112 Eastern bottom trawl, which is much smaller and lighter weight than commercial fisheries trawls. The survey is based on sampling a systematic 20 × 20 nautical mile grid using standardized techniques followed during the annual southeastern Bering Sea shelf survey, which has been conducted in the same manner since 1982. Scientists will sample 144 stations during daylight hours. All organisms caught will be identified to species and weighed. Fishes and crabs will be measured, sexed and sampled for stomach contents, maturity stage and age structure. We also plan to take measurements of water column profiles at each trawl location using a trawl-mounted temperature and salinity probe.

## How will the information be used?

The data will be used by scientists to track abundance and distribution trends of fishes, crabs, and other bottom-dwelling marine species over time. We can then combine this data with other data that we are collecting on their predators – whales and seals and traditional knowledge and information from Alaska Native hunters and fishers to generate a more comprehensive picture of marine food webs through time. All data will be made available to the public.

## Schedule for the 2025 Northern Bering Sea Shelf Survey

Survey operations begin	August 1st
Survey operations end	August 22nd
Vessels arrive in Dutch Harbor, AK to demobilize	August 25th
Demobilization complete and scientists depart	August 28th

<sup>\*</sup>Tentative schedule as of Feb 21, 2025.

# What steps are you taking to ensure that your research does not impact subsistence hunting?

- Once finalized, survey lead will communicate general survey schedule to subsistence hunters in the region.
- Survey lead will maintain regular contact with tribal liaisons in the Bering Sea region.
- During the survey, daily sampling plans will be available real-time through the program's web site: https://www.fisheries.noaa.gov/alaska/science-data/near-real-timetemperatures-eastern-bering-sea-bottom-trawl-survey-2025#survey-progress-andbottom-temperatures.

## How do you plan to communicate research results?

- Report of survey activities will be sent to tribal offices in the Bering Strait region within 60 days after survey.
- Survey data products will be made available to stock assessment scientists by October 1, 2025.
- NOAA Tech Memo summarizing survey results will be published in early 2026
- Haul-level catch data will be made available to the public on the Fisheries One Stop Shop:: https://www.fisheries.noaa.gov/foss.
- AFSC scientists will participate in various local and regional talks, community engagements, and outreach activities.





Duane Stevenson, Survey team lead
Resource Assessment and Conservation Engineering (RACE) Division,
Alaska Fisheries Science Center
7600 Sand Point Way, NE
Seattle, WA 98115
Email: duane.stevenson@noaa.gov

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Howard Lutnick
Secretary of Commerce

### Vice Admiral Nancy Hann

Deputy Under Secretary for Operations and performing the duties of Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator

#### **Emily Menashes**

Deputy Assistant Administrator for Operations for NOAA Fisheries, performing the duties of Acting Assistant Secretary for Oceans and Atmosphere

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www.fisheries.noaa.gov

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