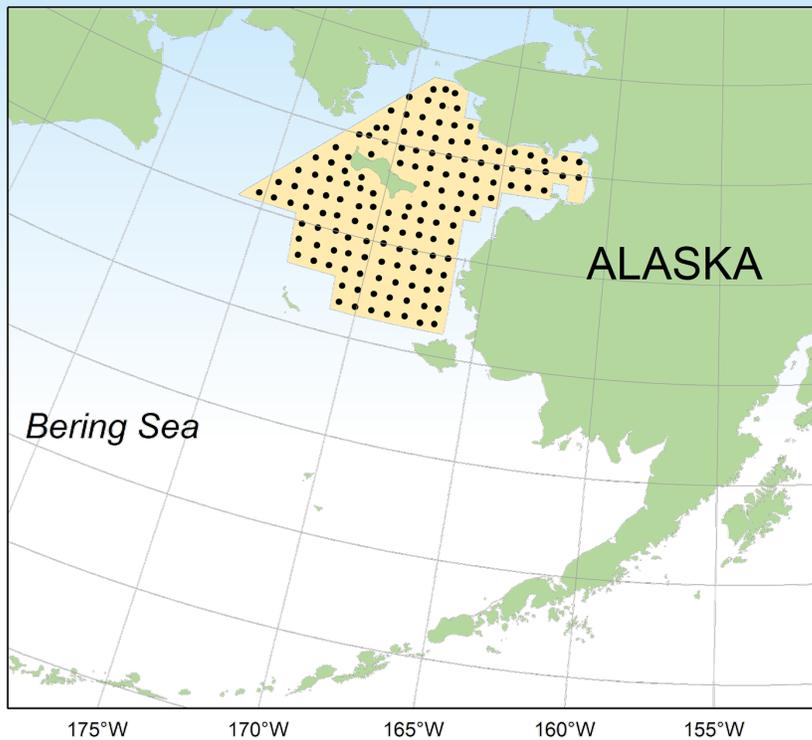




## Bottom Trawl Survey of the Northern Bering Sea

July 30th – August 24th 2023



### What is the research objective?

The objectives of this survey are to understand and monitor the effects of climate change and diminishing sea ice cover 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 nm 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.

### 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 2023 (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.

[See timetable and station map on back](#)

## Schedule for the 2023 Northern Bering Sea Shelf Survey

Vessels arrive for survey mobilization in Nome, AK	July 28th
Survey vessels depart Nome, AK	July 31st
Survey operations begin	August 1st
Survey operations end	August 18th
Vessels arrive in Dutch Harbor, AK to demobilize	August 21st
Demobilization complete and scientists depart	August 24th

\* Tentative schedule as of April 1, 2023.

### What steps are you taking to prevent spread of COVID-19

- General and Vessel Specific AFSC SOPs for Fieldwork for FY 23.
- 10-day reduced contact period prior to travel.
- 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?

- 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, 2023
- NOAA Tech Memo summarizing survey results will be published in early 2024
- 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 communication activities



U.S. Secretary of Commerce  
**Gina M. Raimondo**

Under Secretary of Commerce for  
Oceans and Atmosphere and NOAA  
Administrator  
**Dr. Richard W. Spinrad**

Assistant Administrator, National  
Marine Fisheries Service.  
**Janet Coit**

**March 2023**  
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Silver Spring, MD 20910



*FV Alaska Knight*



*FV Northwest Explorer*

Photo: International Year of the Salmon



**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](mailto:duane.stevenson@noaa.gov)