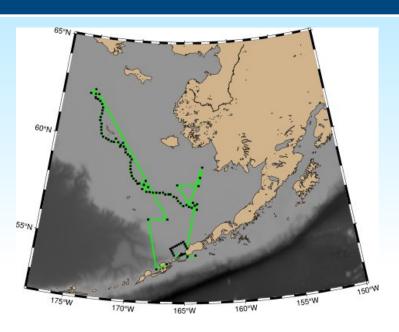
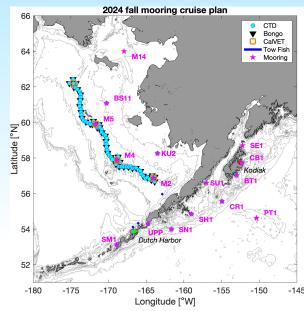
# National Marine Fisheries Service Alaska Fisheries Science Center Research Brief

## Spring and Fall Mooring Cruise

Spring: April 26 - May 10, 2024 Fall: September 3 to September 26, 2024





Map of overall working area - region, stations, long-term mooring sites, CTD stations. Left: Spring and Right: Fall

### What is the research objective?

An annual survey to provide baseline fisheries and oceanographic data to support sustainable management of living resources in the Bering Sea and the rapidly changing US Arctic ecosystem. The goals of the survey include the recovery and deployment of NOAA biophysical and passive acoustic moorings located in the Bering Sea, perform CTD measurements, as well as Bongo and net tow surveys for zooplankton and fish larvae at long-term sampling sites.

### Who is conducting the research?

The NOAA EcoFOCI program leads this research survey. They also collect samples and deploy/recover equipment for other NOAA programs as well as non-Federal partners.

EcoFOCI is a joint NOAA Fisheries and NOAA Research program conducting work in the Gulf of Alaska, Bering Sea and U.S. Arctic to improve understanding of ecosystem dynamics and provide science to support management of living marine resources.

### Where is the research being conducted?

Sampling over the northern Gulf of Alaska and eastern Bering Sea shelf, time and sea ice permitting.

## Why are the data important? How will data be used?

This survey provides key data in understanding and monitoring events such as sea-ice loss and the cold pool and how these are impacting the ecosystem.

Information from the Spring cruise is immediately shared at the AFSC annual PEEC meeting and preliminary analysis/predictors to the Ecosystems Status Report (up to date ecosystem information and assessments).

Information from the Fall cruise is immediately shared to the Ecosystems Status Report team (up to date ecosystem information and assessments). Biological and oceanographic data will also be used in ecosystem modeling efforts conducted by NOAA and partner scientists. All data are used to create other products, including publications.

### **Research Schedule**

Science Team arrives, mobilize Kodiak, AK Dutch Harbor, AK	April 2024 September 2024
Survey operations Spring Fall	April 26 - May 10, 2024 September 3 - September 26, 2024
Science Team returns, demobilize Dutch Harbor, AK Kodiak, AK	May 2024 September 2024

#### How will this research benefit Alaska communities and stakeholders?

This surveys provides essential and critical foundational information necessary to provide context of long-term shifts in the ecosystem. The M2 surface mooring, deployed each spring (and recovered in the fall) provide year-round measurements of temperature, salinity, nitrite, chlorophyll, and currents in this highly productive area. Long-term time-series at this site are a critical tool for adapting to climate change and guiding sustainable management of living resources in the Bering Sea.

The research supports Ecosystem-Based Fisheries Management initiatives by forming the basis for ecosystem indicators, which provide early warnings of species and ecosystem shifts, contribute to risk assessments for commercial stocks, and help maintain sustainable fisheries for Alaska.

## How do you plan to communicate research results?

- Preliminary results will be presented to the Spring PEEC and Fall Plan Team Meetings
- Ecosystem indicators of zooplankton, ichthyoplankton, and oceanographic conditions will be contributed to the Eastern Bering Sea Ecosystem Status Report and presented to the North Pacific Fishery Management Council in December.
- Data are made publicly available after verification and quality control.
- Notable research findings will be communicated via web stories, presentations and scientific publications.
- EcoFOCI scientists frequently present at the Alaska Marine Science Symposium, each January in Anchorage, AK.

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