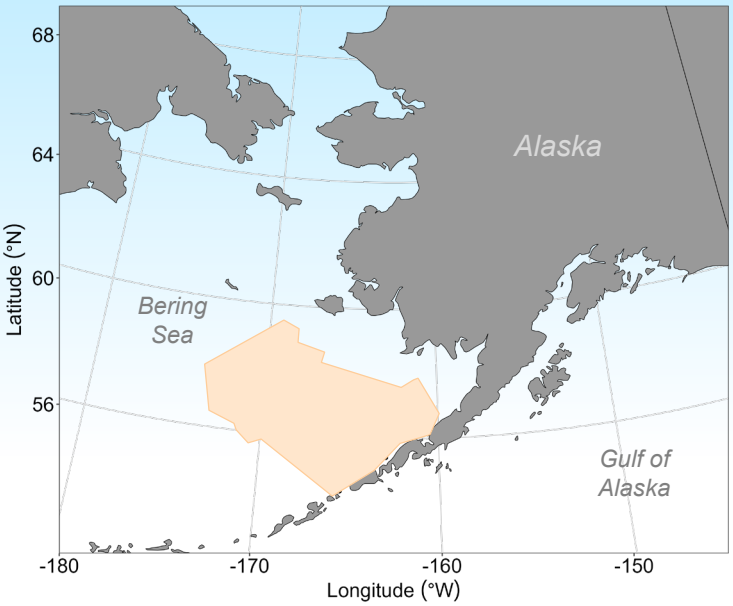
NOAA FISHERIES
National Marine Fisheries Service
Alaska Fisheries Science Center

Research Brief

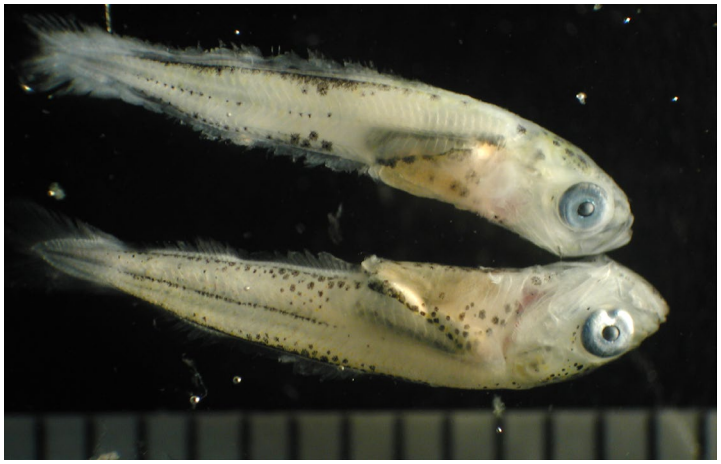
EcoFOCI Spring Ichthyoplankton Survey

May 17-31st, 2024



What is the research objective?

The primary objective of the EcoFOCI Spring Ichthyoplankton Survey is to conduct an assessment of eggs and larvae of commercially-important fishes, including walleye pollock and Pacific cod, over the eastern Bering Sea shelf. Observations support research on fisheries recruitment processes and contribute to our understanding of how young fish and their zooplankton prey respond to changes in climate.



A larval pollock (top) and Pacific cod (bottom) caught during the spring ichthyoplankton survey, each ~12 mm long.

Who is conducting the research?

Scientists from the EcoFOCI Program, a joint research program between NOAA's Alaska Fisheries Science Center and the Pacific Marine Environmental Laboratory.

Where is the research being conducted?

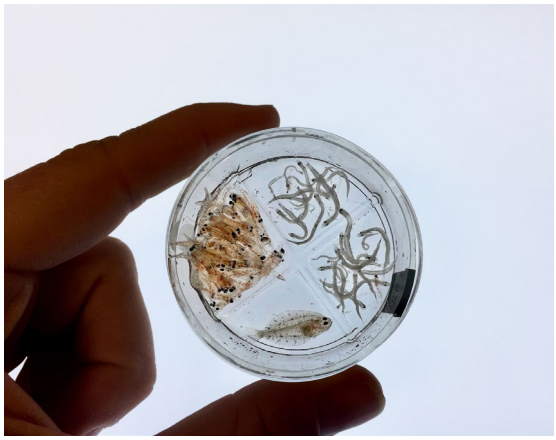
Scientists aboard the *RV Oscar Dyson* will conduct sampling over the eastern Bering Sea shelf near the Alaska Peninsula, Pribilof Islands, and along the continental shelf break, time and sea ice permitting.

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

These data provide early indications of year class strength of commercially-important fishes, while simultaneously sampling the abundance of lipid-rich zooplankton prey that are needed to sustain these early life stages throughout the summer, fall, and overwinter. Oceanographic data (temperature, salinity) will also be collected to assess springtime environmental conditions. These data will be used by scientists to track and understand the impacts of changing ocean conditions on the early life stages (fish eggs and larvae), a critical period during which year-class strength is often determined.

Research Schedule

Science Team flies to Dutch Harbor, AK	May 15th
Vessel set up and mobilization in Dutch Harbor, AK	May 16th
EcoFOCI Spring Ichthyoplankton Survey operations begin	May 17th
Survey operations end, demobilization in Dutch Harbor, AK	May 31st



How will this research benefit Alaska communities and stakeholders?

This research supports Ecosystem-Based Fisheries Management (EBFM) 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 Alaskan communities and stakeholders.

How do you plan to communicate research results?

- Preliminary results will be presented to the Joint Groundfish Plan Team in September.
- 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.
- Ichthyoplankton data will be made publicly available on the AFSC Ichthyoplankton Information System website after species verification and quality control.
- Notable research findings will be communicated via web stories and scientific publications.

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