



EcoFOCI

Ecosystems and Fisheries Oceanography Coordinated Investigations

Phyllis J. Stabeno
NOAA/Pacific Marine Environmental Laboratory



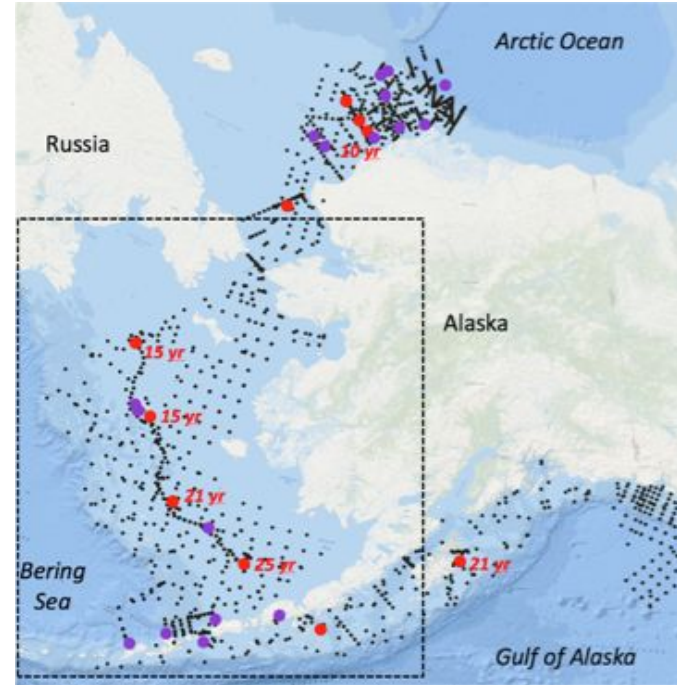
Project Overview

EcoFOCI is a joint research program between NOAA's **Alaska Fisheries Science Center** and the **Pacific Marine Environmental Laboratory** in Seattle, WA.

EcoFOCI mission is *to study the ecosystems of the North Pacific Ocean, the Bering Sea and the U.S. Arctic to improve understanding of ecosystem dynamics and apply that understanding to the management of living marine resources.*

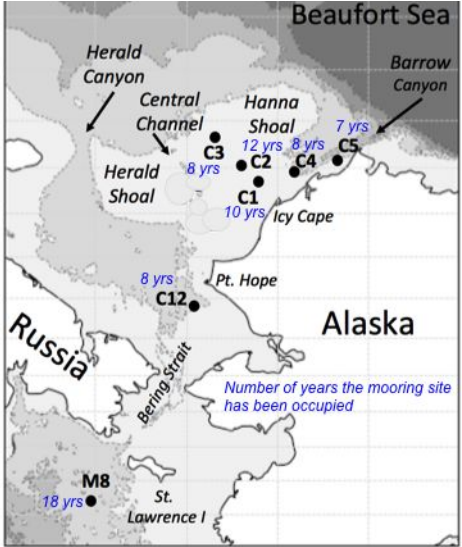
EcoFOCI scientists integrate field, laboratory and modeling studies to determine how varying biological and physical factors influence Alaskan large marine ecosystems.

EcoFOCI sampling locations



GOMO Connections

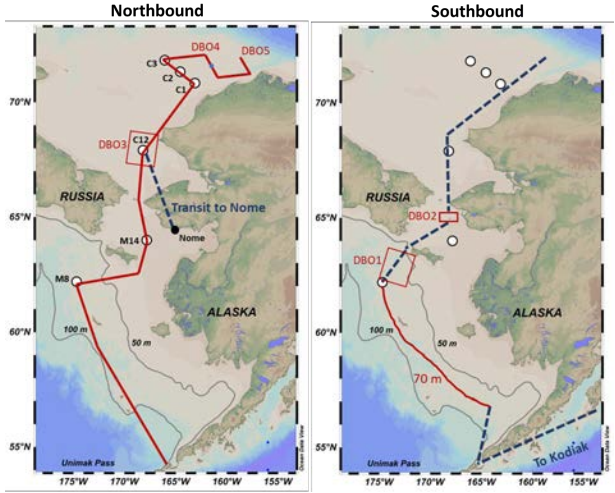
Long-term moorings



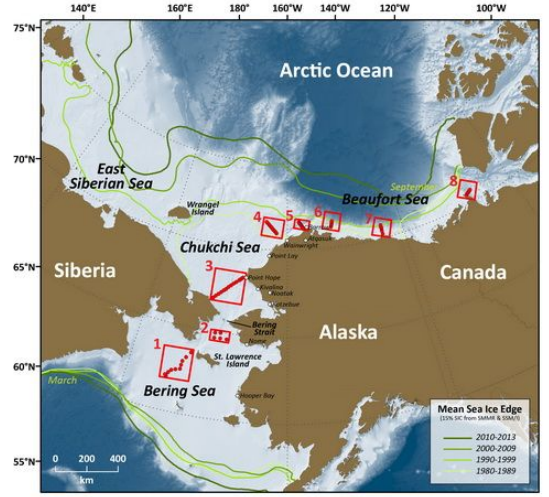
Maintain Observing System:
EcoFOCI (funds from ARP and EcoFOCI) maintains NOAA's Arctic moorings



Shared shiptime: ARP and EcoFOCI jointly apply for NOAA shiptime to conduct an Arctic Cruise each year.



2022 Arctic Cruise



Contributes to the Distributed Biological Observatory: With support from GOMO/ARP

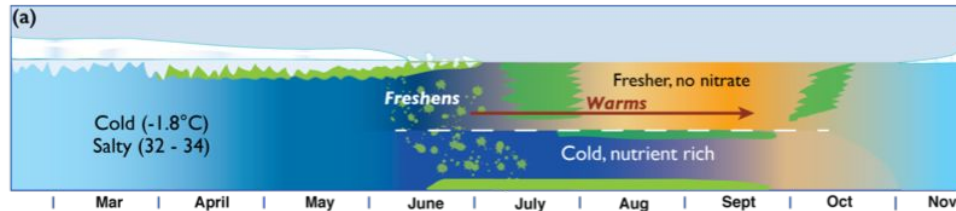
Achievements and Impacts

Highlights

- Provided baseline and **foundational knowledge** for a variety of internal and external collaborators and stakeholders
- Maintained **long-term moorings** in the Bering and Chukchi Seas
- **Expanded understanding** flow patterns, nutrient flux, and ecosystem structure
- **New understanding** of the Arctic ecosystem through a collaborative NPRB funded Integrated Ecosystem Research Program (IERP)
- **Modeling** transition to MOM6 as part of CFI

Impacts

- 40% of the US catch comes from the Bering Sea, and this system is rapidly changing. EcoFOCI data is critical for monitoring this change.
- Data is used routinely by state and federal agencies and scientists conducting a wide variety of monitoring, research and management activities.



Future plans and opportunities

- Expand the number of ecosystem observatories in the Bering and Chukchi Seas to four (physics, chemistry, and plankton to whales)
- Utilize new technologies to enhance spatial and temporal sampling (e.g., gliders, profiling floats, refloatable-profiling moorings)
- Improve models and their predictive capabilities
- Working with partners, convey new information to local communities

