



Northern Bering Sea Integrated Ecosystem Research Program

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NPRB Vision and Mission

Vision Statement: Building a clear understanding of the North Pacific, Bering Sea, and Arctic Ocean ecosystems that enables effective management and sustainable use of marine resources.

Mission Statement: To develop a comprehensive science program of the highest caliber that provides a better understanding of the North Pacific, Bering Sea, and Arctic Ocean ecosystems and their fisheries. The work of the NPRB will be conducted through science planning, **prioritization of pressing fishery management and ecosystem information needs**, coordination and cooperation among research programs, competitive selection of research projects, enhanced information availability, and public involvement.



credit: Ryan Kingsberry



credit: Andrew Trites



credit: Nathaniel Wilder



credit: David Forcucci



credit: Ann Fienup-Riordan

Integrated Ecosystem Research (IERP) Program



The Chukchi Sea Ecosystem

Original Northern Chukchi Sea ecosystem painting collaboratively developed by artist Klara Maisch and Seth Danielson, Claudine Hauri and Andrew McDonnell. Additions to the original implemented by the Arctic IERP science team and artist Molly Trainor.

Integrated Ecosystem Research (IERP) Program

The NPRB Integrated Ecosystem Research Program studies mechanistic processes in marine ecosystems that link ocean physics and chemistry to marine life and include studies of the interactions among species.

These are multi-disciplinary, multi-institutional, multi-year, and multi-million-dollar programs with intensive coordination support from NPRB.

They convene researchers to collaborate for a period of at least five years and include a separate funding opportunity for synthesis following the field program.

Integrated Ecosystem Research (IERP) Program



2007-2014



2010-2018



2016-2021

Synthesis 2022-2025

Integrated Ecosystem Research (IERP) Program



>\$50 million
Coordination with NSF



>\$17.5 million

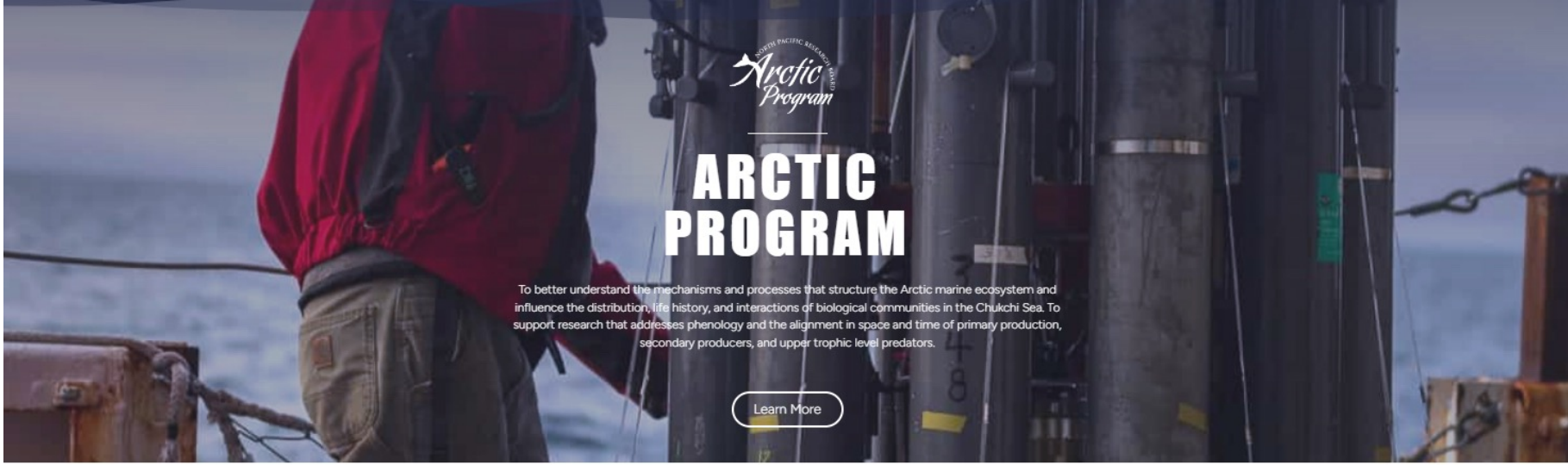


>\$20 million

Funding partners: Bureau of Ocean Energy Management, North Slope Borough/Shell Baseline Studies Program, Office of Naval Research Marine Mammals and Biology Program

In-kind support from National Oceanic & Atmospheric Administration, University of Alaska Fairbanks, National Science Foundation, and U.S. Fish & Wildlife Service

Synthesis funding partner: NOAA OAR Arctic Research Program



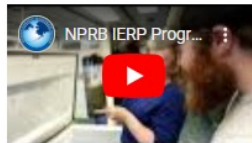
ABOUT THE PROGRAM

The North Pacific Research Board's (NPRB) Arctic Program is the newest integrated ecosystem research program (IERP) to date. The Arctic Integrated Ecosystem Research Program (IERP) will invest approximately \$18.6 million in studying marine processes in the northern Bering and Chukchi Seas in 2017-2021, beginning in the summer of 2017. The program is sponsored by NPRB, Collaborative Alaskan Arctic Studies Program (formerly the North Slope Borough/Shell Baseline Studies Program), Bureau of Ocean Energy Management (BOEM), and the Office of Naval Research Marine Mammals and Biology Program. Generous in-kind support has been contributed by the National Oceanic and Atmospheric Administration and the University of Alaska Fairbanks. This coordinated program was developed in cooperation with the Interagency Arctic Research Policy Committee Chukchi and Beaufort Sea Ecosystem Collaboration Team and the U.S. Arctic Research Commission.

PROGRAM BROCHURE



WHY ARE WE STUDYING THE ARCTIC?



WHAT WE WERE STUDYING AND THE RESULTS



HOW COMMUNITIES PLAYED A ROLE IN THE RESEARCH



RESEARCH SHIPS & SCIENCE TOOLS

Northern Bering Sea Integrated Ecosystem Research Program (IERP)

The next IERP will continue integrated research in the Bering and Chukchi Seas, centered on the Northern Bering Sea.

Items of interest include how shifts in environmental conditions and processes may influence species of commercial, ecological and subsistence importance, and implications for state and federal fisheries management and communities that depend on these resources.

<https://nprb.org/northern-bering-sea-ierp/>



NORTHERN BERING SEA IERP

The Northern Bering Sea IERP will focus on the northern Bering Sea and include consideration of upstream and downstream ecosystems in the southeastern Bering Sea, western Bering Sea, and Chukchi Sea, respectively.

[Learn More](#)

WHY STUDY THE NORTHERN BERING SEA?

The Bering Sea is a productive and diverse marine ecosystem that supports important fisheries and coastal communities in western Alaska. More than 40% of the annual U.S. catch of fish and shellfish are harvested in this region. Large populations of marine birds and mammals migrate to these summer feeding grounds to prey upon krill, copepods, forage fishes, and benthic invertebrates. Coastal communities have been an integral part of this ecosystem for millennia. But with recent warming conditions in the Bering and Chukchi Seas and rapid sea ice loss, this once productive ecosystem is showing signs of profound transition. Populations of Bering Sea snow and king crab and stocks of Yukon and Kuskokwim River Chinook and chum salmon have collapsed, prompting fishery closures. Meanwhile, Bristol Bay sockeye salmon continue to set run and harvest records. More information is needed to better understand why these changes are occurring, how they will affect the ecosystem in the future, and the implications for subsistence and commercial activities in this region.

[DOWNLOAD FACT SHEET](#)

NORTHERN BERING SEA DEFINED

The northern Bering Sea is defined as the area of the Bering Sea shelf north of 60°N (area shaded in dark; the dotted line is 60°N). This ecosystem typically has continuous winter sea ice cover and strong northern water flow through the narrow Bering Strait. The two largest rivers in Alaska (Yukon and Kuskokwim) also exit in this area and represent an important source of freshwater and nutrients.

The Northern Bering Sea IERP will focus on the northern Bering Sea and will include consideration of upstream and downstream ecosystems in the southeastern Bering Sea, western Bering Sea, and Chukchi Sea, respectively.



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Northern Bering Sea Integrated Ecosystem Research (IERP) Program

Anticipated timeline for NBS IERP:

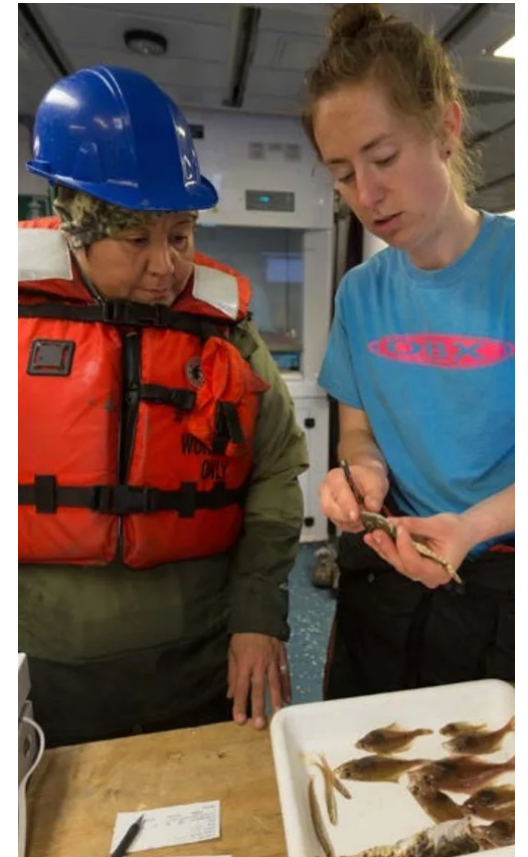
Invite pre-proposals	Oct. 2023
Pre-proposal deadline	May 15, 2024
Full proposal invitations	Sep. 2024
Full proposal deadline	Mar. 2025
Funding decisions	Sep. 2025



Northern Bering Sea Integrated Ecosystem Research (IERP) Program

NPRB will offer up to \$10,000 to those invited to submit a full proposal to further develop the proposal with Indigenous Co-Investigators. Indigenous-led proposals may apply the funds to seek Western science Co-Investigators. NPRB intends these funds to support the travel and/or time of individuals to do one or more of the following:

- explore how the proposed project might address different/additional questions relevant to the interests of Indigenous individuals and/or Alaska Native Organizations;
- design the project to use western science alongside traditional, local, and/or Indigenous knowledge; and/or
- articulate how the project will involve Indigenous partners directly in the research.



Northern Bering Sea Integrated Ecosystem Research Program (IERP)

NPRB is interested in hearing the perspectives of the AICC about the feasibility of supporting multi-disciplinary field research in summer 2026 given the Board's plans to announce funding decisions in September 2025.

NPRB is interested in learning about opportunities to coordinate plans for logistics support with other institutions.

Contact Information

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