



Introduction

PAG/DBO Workshop | November 2017

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Background

- Funding partners: North Pacific Research Board, 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, and National Science Foundation
- \$18.6 million investment 2016-2021



Overarching question

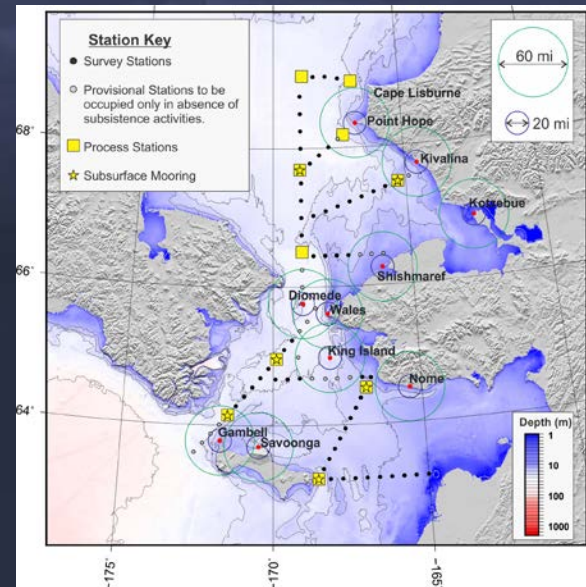
How will reductions in Arctic sea ice and the associated changes in the physical environment influence the flow of energy through the ecosystem in the Chukchi Sea that influence:

- Transport, seasonal composition, distribution, and production of phytoplankton, particulate matter, zooplankton, fishes, benthic invertebrates, seabirds, and marine mammals
- Timing, magnitude and fate of the primary and secondary productivity
- Partitioning/flux of energy between pelagic and benthic realms
- Distribution, condition, and standing stocks of large crustacean zooplankton that serve as the prey base for upper trophic level fishes and seabirds
- Assemblages, distributions, abundances, and condition of larval and early juvenile fishes that influence the recruitment success of later life stages
- Density of marine mammals and seabirds
- Human use of and interaction with the marine environment

Scope

- UAF cruises aboard vessel *Sikuliaq* in northern Bering and southern Chukchi Seas in June 2017 & 2018

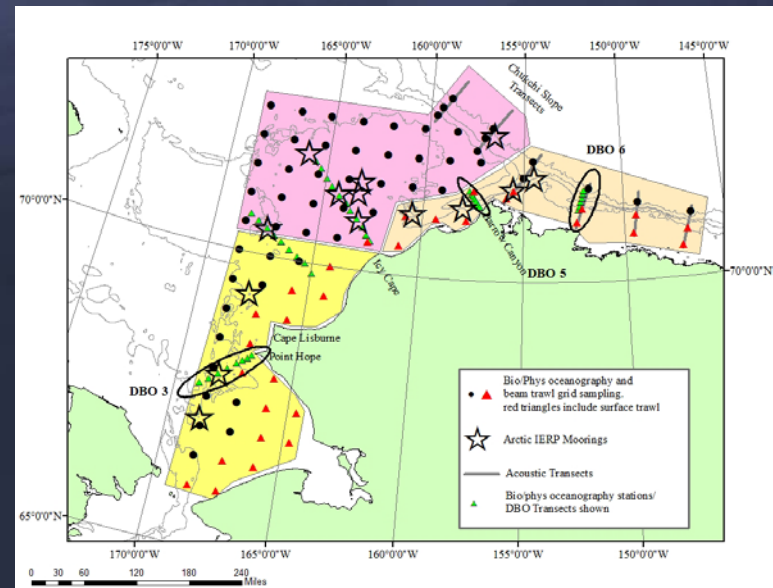
Focus on rate process measurements, physical, chemical, biological oceanography; fish sampling



Scope

- NOAA cruises aboard *Ocean Starr* in Beaufort & Chukchi Seas in August – October 2017 & 2019

Focus on factors driving the distribution of fish, especially Arctic & saffron cod, and pink and chum salmon

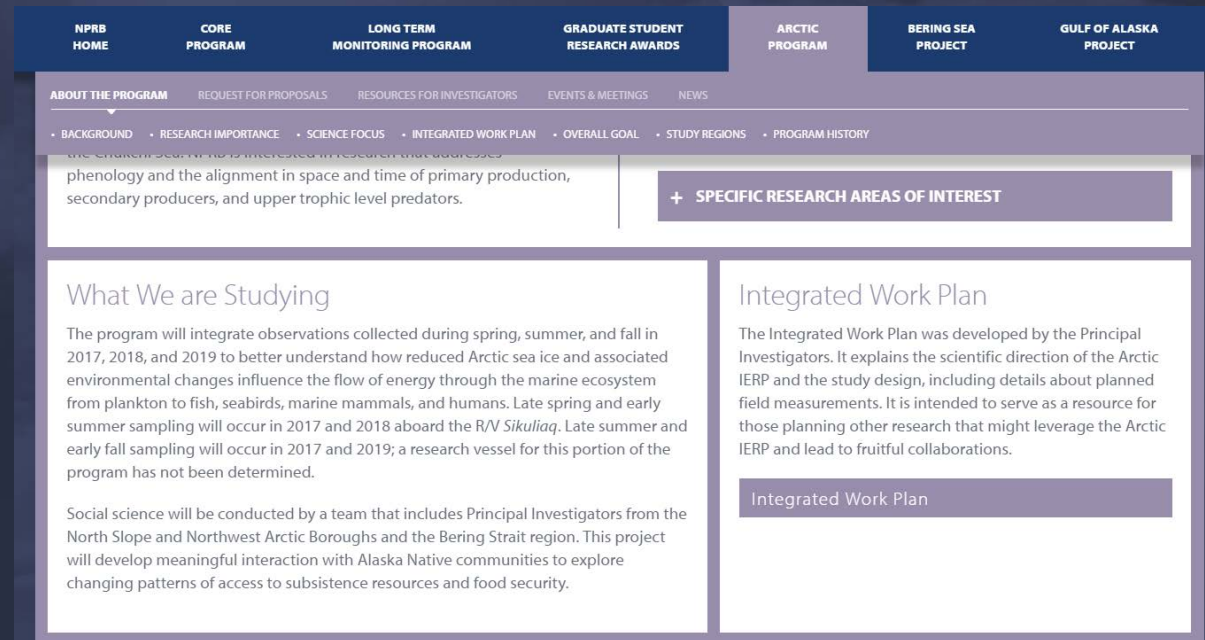


Scope

- Acoustic recorders on moorings in Bering Strait and southern Chukchi Sea
- Social science study on Chukchi Coastal Communities' Understanding of and Responses to Environmental Change

Integrated Work Plan

- Document describes the scope of the program, including specific hypotheses and cruise plans.



The screenshot displays the Arctic Program website's navigation and content. The top navigation bar includes links for NPRB HOME, CORE PROGRAM, LONG TERM MONITORING PROGRAM, GRADUATE STUDENT RESEARCH AWARDS, ARCTIC PROGRAM (highlighted), BERING SEA PROJECT, and GULF OF ALASKA PROJECT. Below this is a secondary menu with ABOUT THE PROGRAM (selected), REQUEST FOR PROPOSALS, RESOURCES FOR INVESTIGATORS, EVENTS & MEETINGS, and NEWS. A breadcrumb trail shows: BACKGROUND > RESEARCH IMPORTANCE > SCIENCE FOCUS > INTEGRATED WORK PLAN > OVERALL GOAL > STUDY REGIONS > PROGRAM HISTORY. The main content area features a section titled "What We are Studying" with two paragraphs: one on environmental changes and energy flow, and another on social science research. To the right, there is a section for "Integrated Work Plan" with a brief description and a button labeled "Integrated Work Plan".