



Presentation to the
**North Pacific Fishery
Management Council**

December 2014



Created by Congress, with a 20-member board

Funding from settlement of the Dinkum Sands case

Annually awarded 20% of the interest off the Environmental Improvement and Restoration Fund

Funding through NOAA; decisions of NPRB advisory to the U.S. Secretary of Commerce

North Pacific Research Board

Building a clear understanding of the Gulf of Alaska, Bering Sea and Arctic Ocean ecosystems that enables effective management and sustainable use of marine resources

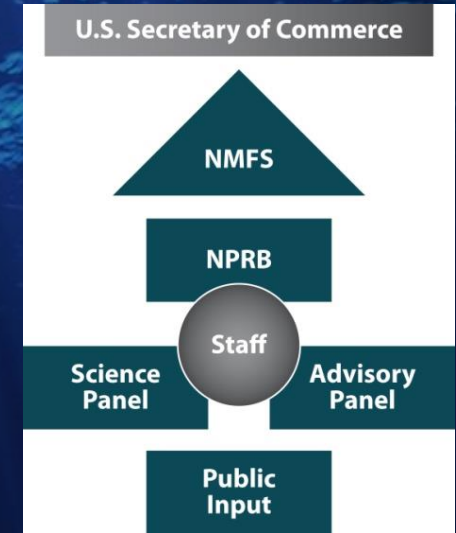
Ecosystem Research
Scientists take an integrated approach to understanding how a whole ecosystem works, from the benthos to the atmosphere, and everything in between. They also study the socio-economic impacts of a changing marine ecosystem on humans and communities. NPRB is conducting such research in the Bering Sea and the Gulf of Alaska.

Science at Sea
Researchers funded by NPRB focus on everything from physical oceanography and plankton to fish, marine mammals and seabirds, as well as people in coastal communities and those who make their living from the ocean.

Funding Opportunities
Funding opportunities are available through annual requests for proposals, special requests for proposals for integrated research, and a limited number of graduate research assistantships. For more information, please visit www.nprb.org.

Research at a Glance
NPRB works to translate scientific research for a variety of audiences... Brief summaries of completed projects reveal their purpose and relevance in just two pages. Research summaries are more in-depth, and have been completed for seabird and marine mammal work funded by NPRB since 2002.

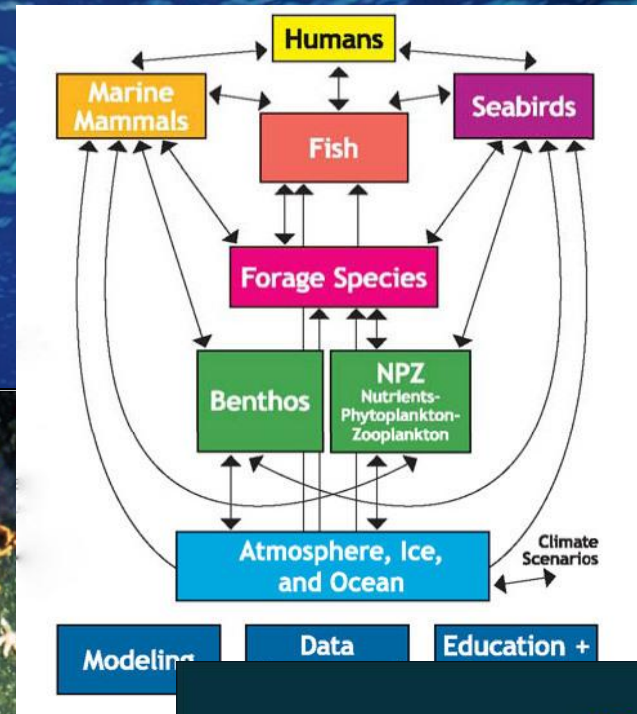
1007 West Third Avenue, Suite 100 • Anchorage, AK 99501 • 907-644-6700 www.nprb.org





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

Priority on cooperative research designed to address pressing fishery management or marine ecosystem information needs

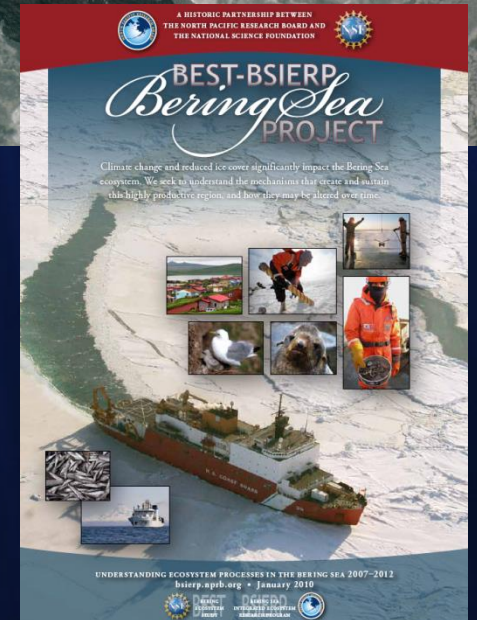
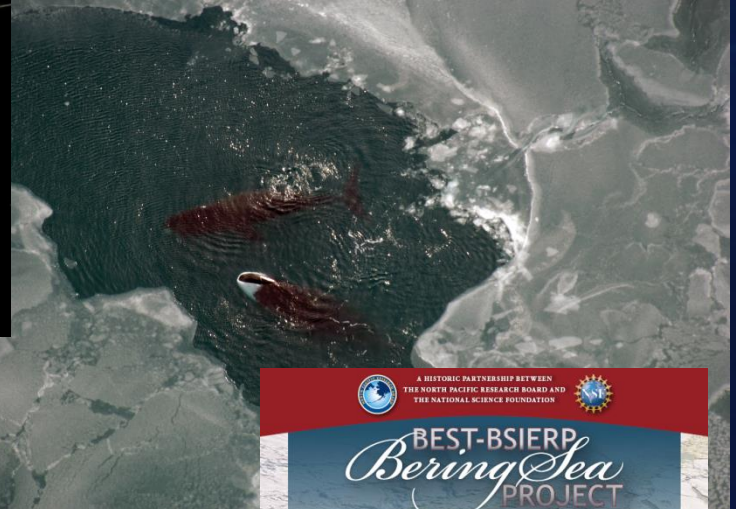


The cover of the North Pacific Research Board Science Plan report. It features the board's logo in the top right corner. The title "North Pacific Research Board Science Plan" is prominently displayed. Below the title, a subtitle reads: "Building a clear understanding of the North Pacific, Bering Sea, and Arctic Ocean ecosystems that enables effective management and sustainable use of marine resources." The cover is decorated with a collage of small images showing various marine life and research activities. At the bottom of the cover is a large, abstract image of water ripples.



Ocean productivity
Fish habitat
Fishes and
invertebrates
Marine mammals
Seabirds
Human dimensions
Other prominent
issues

Annual RFP
Integrated ecosystem
research
Long-term
monitoring
Graduate student
research awards





Communications and Outreach

Alaska Marine Science Symposium

NORTH PACIFIC RESEARCH BOARD

2013 photography CONTEST

We welcome images of Alaska coastal seascapes or sea life within U.S. waters from the Gulf of Alaska, Prince William Sound, Aleutian Islands, Bering Sea, Bering Strait or Beaufort/Chukchi Seas.

ENTRY DEADLINE
March 1, 2013

WINNERS ANNOUNCED
May 20, 2013

PRIZES

YOUTH (17 and under)
First \$600
Second \$400
Third \$200

ADULT (18+)
First \$1,200
Second \$600
Third \$300

VISIT
www.nprb.org
before entering
e-mail media

PHOTO CREDIT

NORTH PACIFIC RESEARCH BOARD

2014 GRADUATE STUDENT RESEARCH AWARDS

NPRB offers annual Graduate Student Research Awards to encourage students to pursue scientific and scholarly research addressing management issues in the northern seas.

Qualified masters and doctoral students may apply for one of six awards of \$25,000 each. Awards will be given for the opportunity to address scientific, technological, and socio-economic issues relating to the research themes identified in the 2005 NPRB Science Plan.

Eligibility
To be eligible, accepted by a accredited in research topics themes and a Science Plan.

www.nprb.org

NORTH PACIFIC RESEARCH BOARD RESEARCH SERIES

FISH HABITAT
Oases of Ocean Life
2002-2008 RESEARCH SUMMARY

ALASKA MARINE SCIENCE SYMPOSIUM

JANUARY 21-25, 2013

Alaska Marine Science Symposium
HOTEL CAPTAIN COOK & EGAN CENTER • ANCHORAGE, ALASKA

SHOWCASING OCEAN RESEARCH IN THE ARCTIC OCEAN, BERING SEA, AND GULF OF ALASKA

north pacific research board

2011 photography Contest

We welcome images of coastal seascapes or sea life within U.S. waters from the Gulf of Alaska, Prince William Sound, Aleutian Islands, Bering Sea, Bering Strait or Beaufort/Chukchi Seas.

ENTRY DEADLINE
March 1, 2011

WINNERS ANNOUNCED
May 16, 2011

PRIZES

Youth (17 and under)
First \$600
Second \$400

NORTH PACIFIC RESEARCH BOARD

2011 CALENDAR

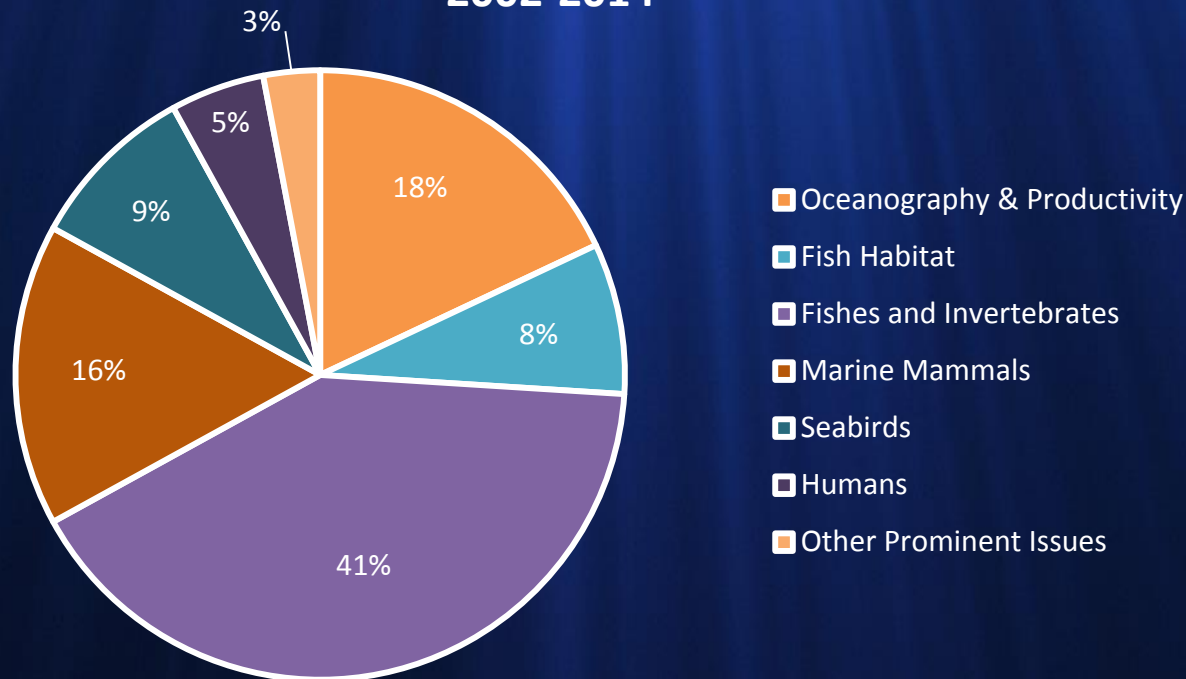


Research Programs

Annual Research Program (2002 -2014)

350 projects totaling over \$57.8 million

Funding Distribution by Research Theme
2002-2014



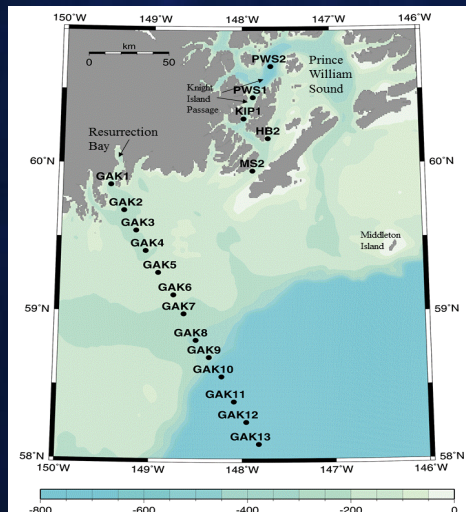


Research Programs

Long-term Monitoring Program (new in 2014)

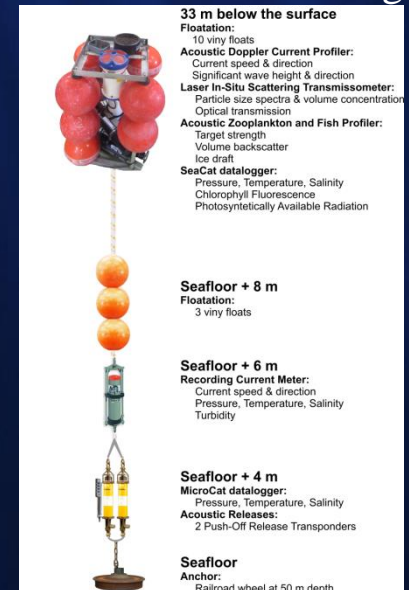
Three new 5-year projects (\$1.86 million) with potential to re-new funding in subsequent 5-year periods

GOA Seward Line



North Pacific Continuous Plankton Recorder

Year-round Northeast Chukchi Sea Mooring





Research Programs

Integrated Ecosystem Research Programs

Bering Sea
PROJECT

2009-2012

\$52 million partnership between NPRB and the National Science Foundation

GULF *of* ALASKA
PROJECT

2010 – 2014

\$18 million total from NPRB & NOAA-Alaska Fisheries Science Center

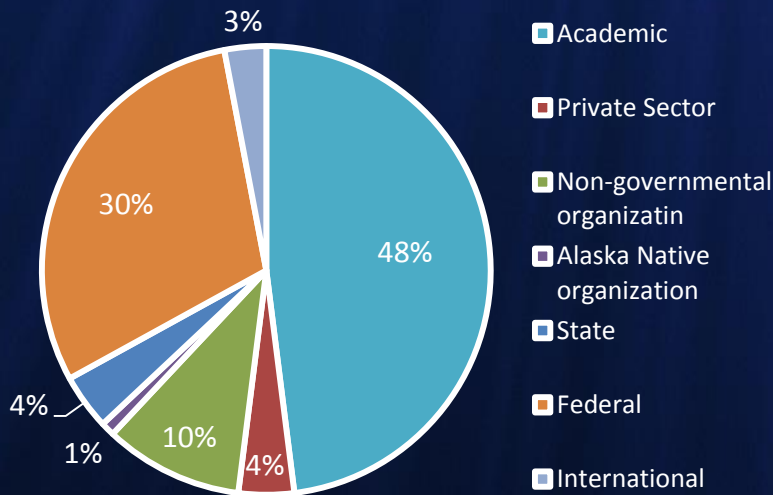


Funding Distribution

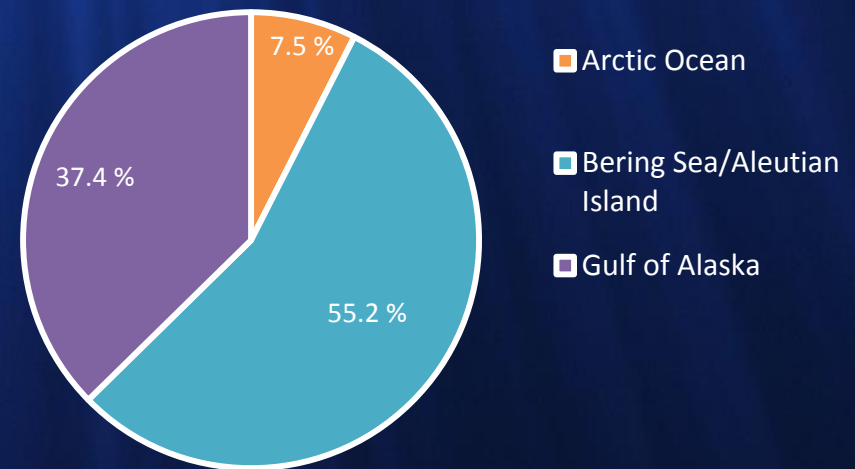
Funds Awarded since 2002: \$84.9 million

organizations receiving funds : 117

Funding Distribution by Institution Type 2002 - 2014



Funding Distribution by Large Marine Ecosystem 2002- 2014

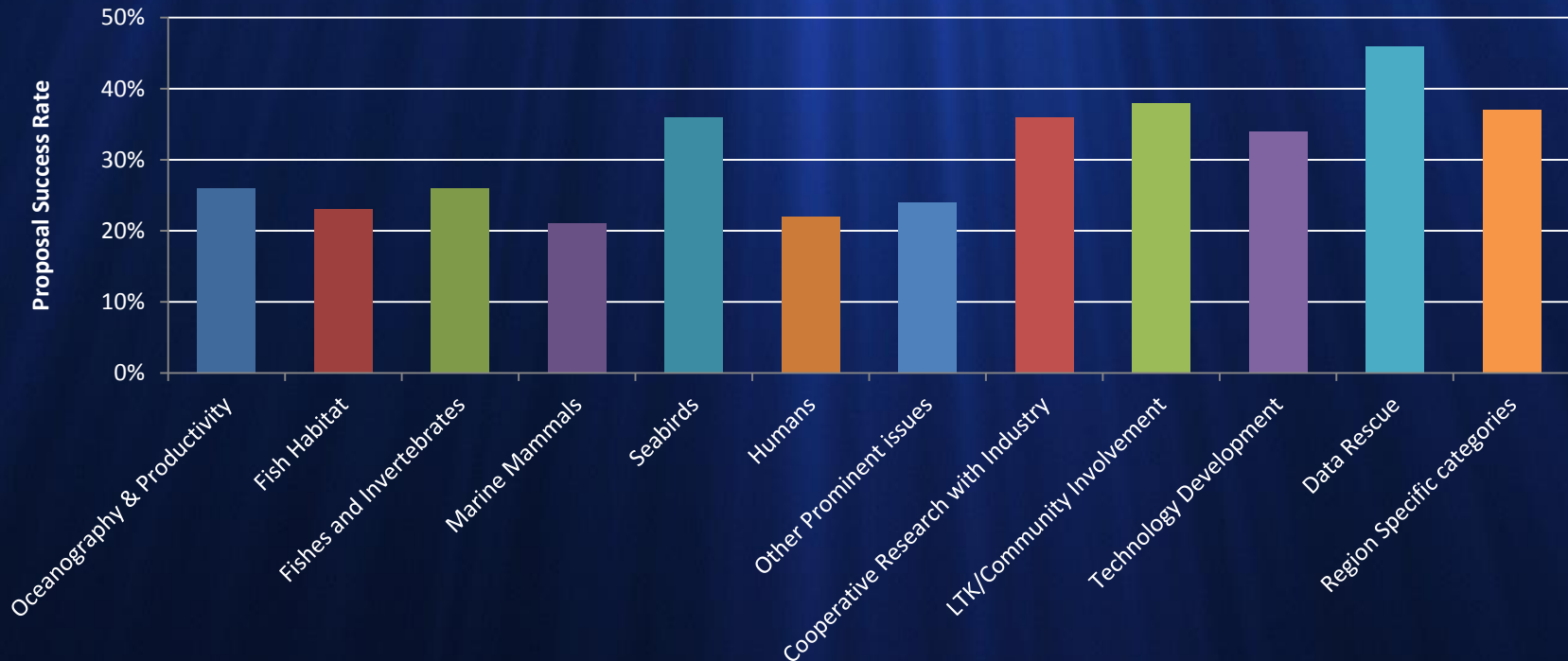




Proposal Success Rate

28 % overall success rate for proposals submitted to the annual RFP since 2006

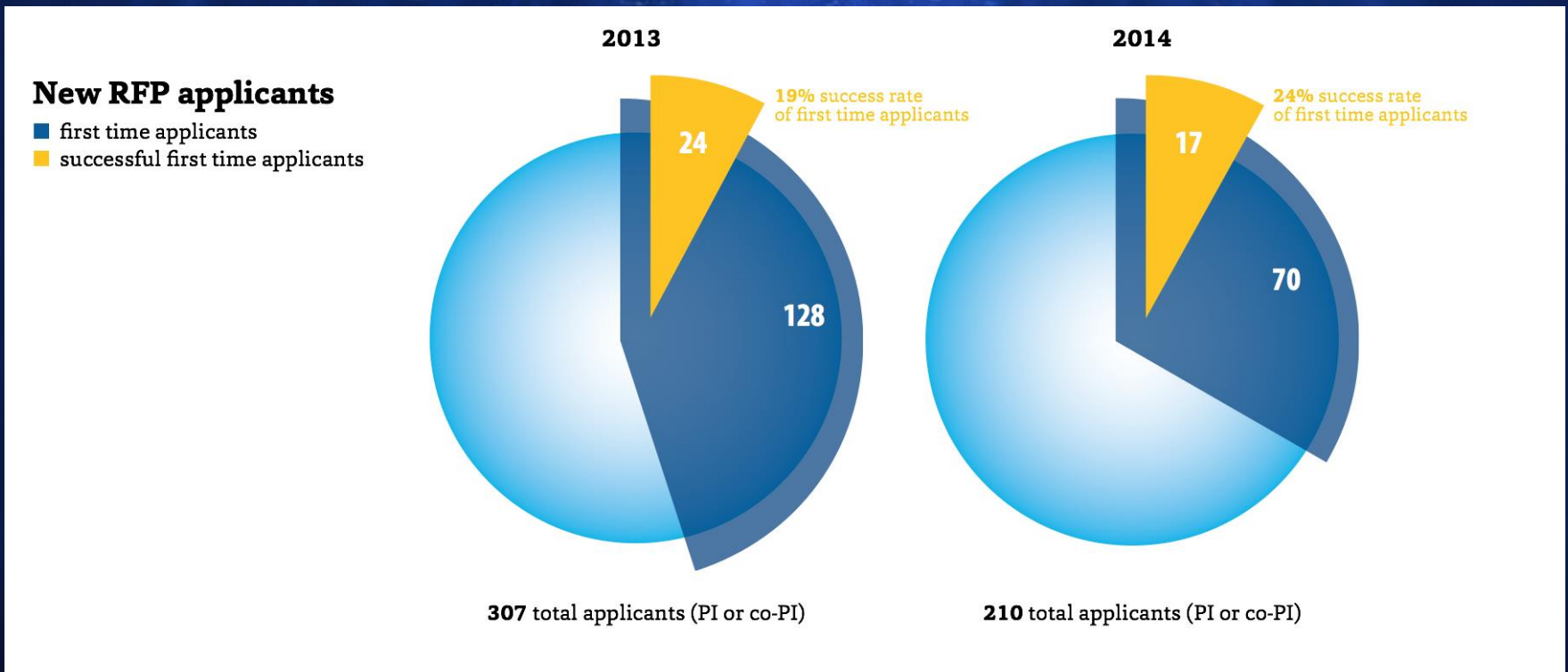
Proposal success rate by RFP category 2006-2014





Proposal Success Rate

New Applicants



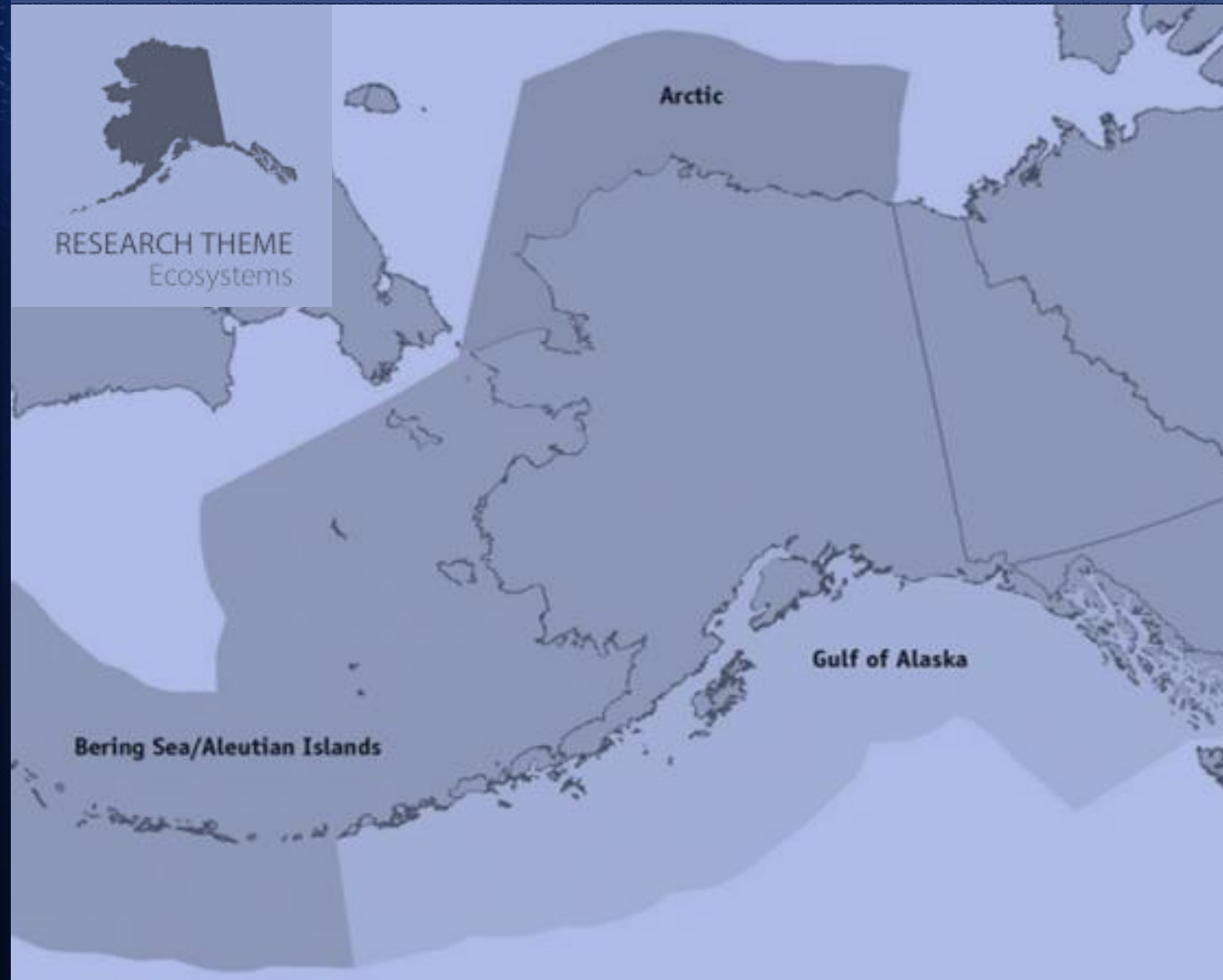


NPRB develops and implements multi-institution, interdisciplinary science projects through integrated ecosystem research programs

**Marine Ecosystem
Information Needs**



**Pressing Fishery
Management Issues**





NPRB develops and implements multi-institution, interdisciplinary science projects through integrated ecosystem research programs

Bering Sea PROJECT

GULF of ALASKA PROJECT



Aleutian Islands Ecosystem Synthesis

- Retrospective and simulation modeling to update and advance understanding of the AI marine ecosystem.
- Integrate existing data to provide a new baseline and identify information gaps.



Phase I

Pacific Marine Arctic
Regional Synthesis of
the Northern Bering,
Chukchi, and Beaufort
seas (PacMARS)



Intended to synthesize existing information to further understanding of the Bering Strait, Chukchi and Beaufort Seas

- Partnership of NPRB, NPMRI, NSF Office of Polar Programs
- Funding provided by Shell Exploration & Production and ConocoPhillips
- Coordinated with the Synthesis of Arctic Research program (BOEM)



Phase II Arctic Program

In May 2014 NPRB formalized its intention to commit \$6 million towards development of an integrated Arctic research program



Geographic Scope

The northern Bering Sea, Bering Strait, and Chukchi Sea



Phase II Arctic Program

In May 2014 NPRB formalized its intention to commit \$6 million towards development of an integrated Arctic research program



Research Question

How do physical and biological processes in the northern Bering Sea and Chukchi Sea influence distribution, abundance, and life history of species critical to ecosystem structure and species important to subsistence harvest?

How may those processes change over the coming fifty years?



Phase II Arctic Program

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- Patterns in subsistence use and response to ecosystem change
- Physical and biological drivers of species distribution and life history
- Influence of sea ice and advection on timing of production
- Identification of important thresholds or tipping points
- Influence of winter conditions (e.g., system reset)
- Benthic-pelagic coupling
- Modeling (e.g., ice-atmosphere-oceanography)



Preliminary Timeline

May 2015:
Invitation for pre-
proposals

October 2015:
Invitation for Full
Proposals
Funding decision

July 2016:
Program planning
and coordination

March 2017:
Initiation of field
research



Collaboration: Shell/North Slope Baseline Studies Program, BOEM, OSRI

NPRB welcomes opportunities for partnerships that leverage resources to support coordinated research on marine systems in the Arctic and information on existing or planned studies.



Soliciting Nominations

Advisory Panel (3)
Gulf of Alaska
Bering Sea
At-large

Science Panel (3)
Biol. ocean.
Seabird ecol.
Fishery mgmt.

NPRB Board (1)
Fishing
industry seat



- Solicitations for nominations are available now
- Nominations (and self-nominations) are due February 27, 2015
- Submit to susan.dixon@nprb.org
- Board review and selection in May 2015
- Appointments to AP and SP effective June 1, 2015
- Fishing Industry Representative to NPRB subject to Secretary of Commerce appointment, and potentially effective July 21, 2015