



NPRB-NPFMC

# Research Priorities



NPRB and NPFMC aim to develop a coordinated approach to further joint interests to:

- 1) identify priorities for research to inform fishery management and improve understanding of marine ecosystems in the North Pacific; and
- 1) monitor investments in research and related results to determine...
  - what priorities are addressed
  - what information is developed through funded research
  - how insights are applied to inform management and/or understanding of processes and interactions



## June 2016 NPFMC Meeting

- 1) Endorse NPFMC staff working with NPRB staff to coordinate research priorities
- 2) Determine whether research projects meet NPFMC priorities and track research outcomes



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## June 2017 NPFMC Meeting

- 1) Update on revision of NPRB research priorities
- 2) NPRB process for developing research priorities
- 3) Plans to include link to NPFMC priorities as attribute in NPRB proposal submission system
- 4) Hierarchical structure for organizing research priorities
- 5) Timeline for phased development of joint approach
- 6) Solicit ideas and insights on how to coordinate



Review Plans...



Review Plans...

New Developments....

- 1) Hire of a SeaGrant Fellow to research investments and development of priorities
- 2) Development of searchable database to determine:
  - where investments have been made
  - what has developed or been implemented as a result of that information
  - what priorities have been funded
  - what priorities have not been funded (and why)
    - lack of proposals in that area
    - proposals denied because of scientific merit
    - proposals denied because of board priorities

Review Plans...

New Developments....

- 1) Revised NPRB Science Plan
- 2) Revised set of research priorities and approaches to research

North Pacific Research Board

# Science Plan



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



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# North Pacific Research Board

Supporting peer-reviewed scientific research that informs effective management and sustainable use of marine resources





# North Pacific Research Board

Supporting peer-reviewed scientific research that informs effective management and sustainable use of marine resources

## Mission

To develop a comprehensive science program... that provides a better understanding of the North Pacific ecosystems and their fisheries.... 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.



# North Pacific Research Board

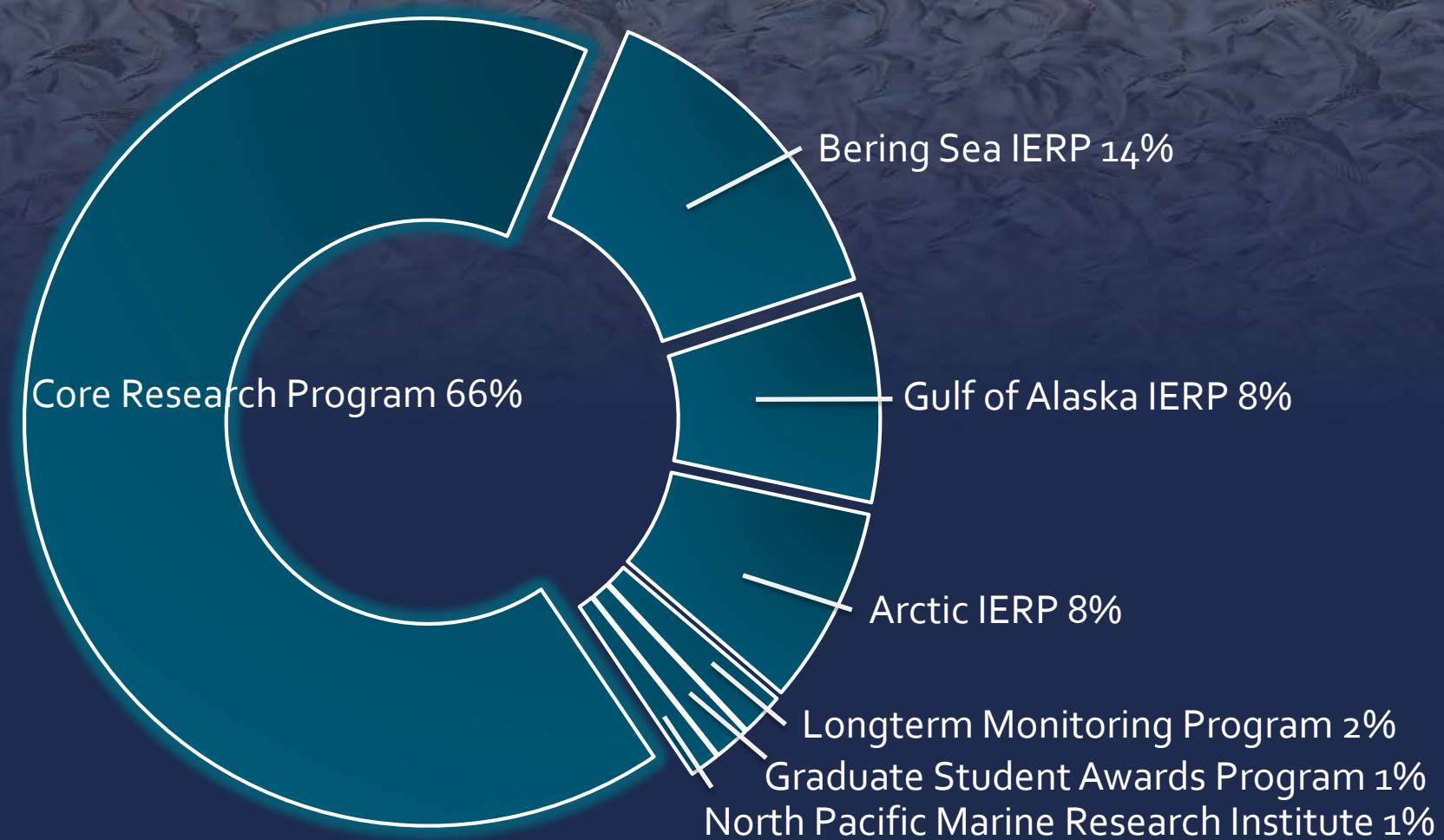
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# Research Investments



# Research Investments



## Core Research Program

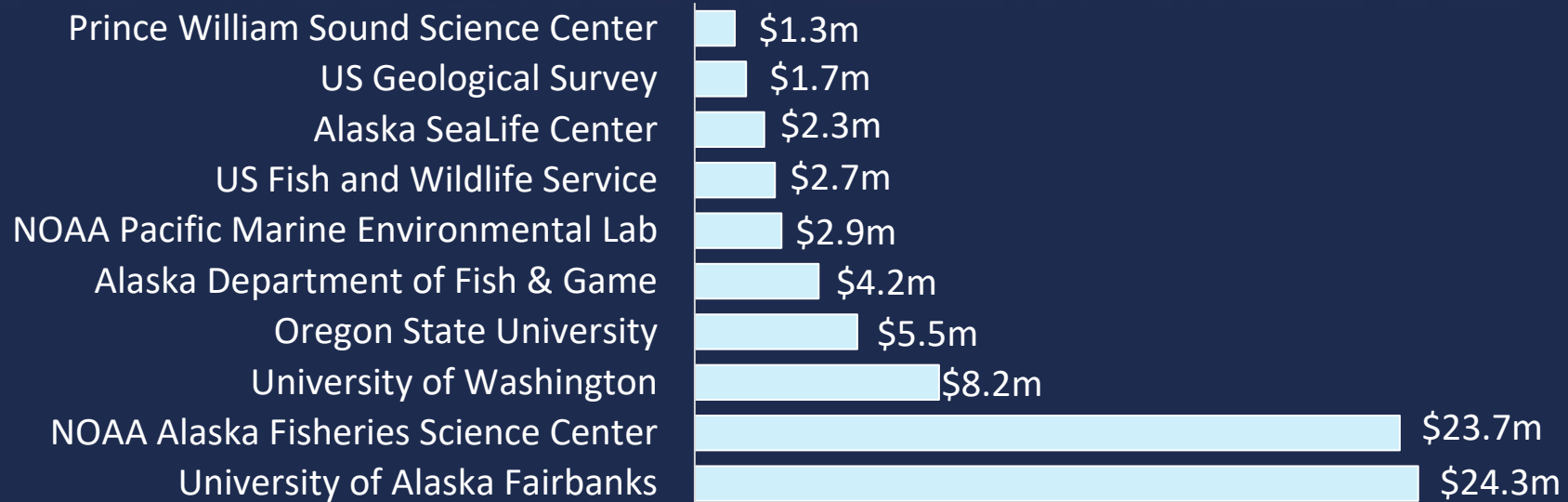
- 1-5 year studies
- 666 projects funded (+21 in May 2018)
- 90 active projects



# Research Investments



# Research Investments



# Research Themes



# Research Themes





# Research Investments in 2018

## OCEANOGRAPHY

- Characterization of size-fractionated microbial communities
- PSP Toxins in marine food webs

## FISHES & INVERTEBRATES

- Survey design for untrawlable habitat in the Gulf of Alaska
- Spatial-temporal model for estimating groundfish availability
- Pacific cod IBM validation and enhancement
- Hormone profiles for yelloweye rockfish
- Ichthyophonous in Pacific Herring
- Identifying distinct herring stocks via genetic sequencing

## HUMAN DIMENSIONS

- Bayesian Integration of LTK and Western Science

## COOPERATIVE RESEARCH WITH INDUSTRY

- Cooperative pilot study for Pacific cod tagging in the Aleutians

## MARINE BIRDS & MAMMALS

- Population structure of northern fulmar bycatch
- Integrating mark-recapture and telemetry to estimate abundance and movement
- Identification of ambiguous whale calls using nonlinear signal processing
- Establishing baseline ringed seal sea ice breeding habitat
- Distribution and abundance of US-RUS polar bears and ice-associated seals
- Annual pelagic distribution of Tufted Puffins
- Impact of lagoon habitat change on Steller's eiders

## TECHNOLOGY DEVELOPMENT

- New technique to measure body condition in Steller sea lions
- Unmanned aircraft systems to survey seabird abundance and productivity
- Ageing fish otoliths with near infra-red spectroscopy

## DATA RESCUE

- Digitizing and disseminating historical BOF documents and commercial fisheries news releases

## INTERDISCIPLINARY STUDIES

- Mercury speciation in water, zooplankton and pelagic fish, SE Bering Sea



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# REQUEST FOR PROPOSALS | 2017

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## Fishes and Invertebrates

*The individual proposal funding cap for this category is \$500,000.*

### General topics of interest:

- development and application of new assessment approaches
- estimation of life history parameters that impact stock assessments (e.g., age, growth, maturity, fecundity, natural mortality, environmental drivers, recruitment)
- spatial and temporal variation in stock distribution patterns (e.g., life history stages, environmental drivers, prey availability and/or predator avoidance)
- analyses of survey design and data (e.g., gear selectivity and species distribution/availability, influences of environment or habitat, linking multiple data sources, estimating parameter uncertainty)
- ecology and physiology of forage species (e.g., recruitment, growth, environmental linkages, and factors influencing availability to predators)
- bycatch and incidental catch (e.g., spatiotemporal distribution, ecological effects, discard mortality, and implications of management measures)
- characterization of habitat essential for spawning, nursery and feeding areas
- development of predictive models of habitat use and quality, including climate-driven shifts in

### Issues of particular interest:

- above topics of interest applied to data-poor stocks
- survey catchability
- discard mortality rates
- implementation of short-term climate forecasts (e.g., less than 5 years) for assessing changes in marine resources
- research on non-recovering stocks and mechanisms for recovery failure
- improvements to spatial resolution of stock assessments

# Research Priorities – process of identification

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Research Priorities are determined through:

- Review of NPFMC priorities
- Solicitation of priorities from specific management agencies
- Solicitation from research community and public through online portal (June-July)



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- Review of NPFMC priorities
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- Solicitation from research community and public through online portal (June-July)

Priorities informed through the NPFMC and online portal include:

- North Pacific anomalous warming
- Development and application of new quantitative assessment approaches
- Estimation of life history parameters to improve stock assessment
- Analyses of selectivity survey design to inform estimates of catchability
- Assessment of data poor stocks
- Depleted and declining marine mammal populations
- Development of new tools, models, and frameworks to understand and predict implications of policy and management decisions
- Monitoring from industrial platforms, infrastructure or vessels
- Data management





## North Pacific Research Board

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

*visit us at [www.nprb.org](http://www.nprb.org)*

# Submit Your Research Ideas

## Solicitation for NPRB's 2019 Request for Proposals—by June 29th

The North Pacific Research Board (NPRB) will be releasing the next Core program Request for Proposals (RFP) in October 2018. As part of the multi-stage drafting process, input from the scientific community is considered by the NPRB Science panel, Advisory panel and Board under the issues of particular interest section for each category. Keep in mind as you draft your suggestions that they will be converted to bullet format to align with the RFP structure.

Those interested in themes from prior RFPs can view our [RFP evolution](#) as a reference.

Please submit your recommendations for specific topics to be considered by **Friday, June 29<sup>th</sup>**. Thank you for your interest, insight, and ideas.

[Submit Your Ideas](#)

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You are receiving this email because you have opted in North Pacific Research Board (NPRB) activities that include but are not limited to peer review, proposal submissions, abstract submissions, photo contests, general inquiry, etc.





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NPRB HOME

CORE PROGRAM

LONG TERM MONITORING PROGRAM

GRADUATE STUDENT RESEARCH AWARDS

ARCTIC PROGRAM

BERING SEA PROJECT

GULF OF ALASKA PROJECT

ABOUT THE PROGRAM

REQUEST FOR PROPOSALS

PROJECT SEARCH & DATABASE

PUBLICATION LIBRARY

RESOURCES & REQUIREMENTS

OVERVIEW RFP SUGGESTIONS APPLY ONLINE TEMPLATES OUTREACH REQUIREMENTS TIMELINE FAQs



Photo Credit: Ram Papish

## Request For Proposals

### Overview

Proposals undergo four stages of review, including independent peer review, the NPRB Science and Advisory Panels. The Board determines final funding recommendations to the U.S. Secretary of Commerce based on these reviews.

### RFP Suggestions

NPRB staff begins developing draft research priorities for the annual RFP in late July and August. If you have ideas for research that you think merit consideration in next year's RFP, please complete this short form. Suggestions made before **July 10** will be considered for the current year's RFP development. Suggestions received after this date will be considered for the following year.

Name \*

First Name

Last Name

Affiliation \*

E-mail \*

Research Suggestion \*

## Suggestions for RFP: Entries

Fre

[Forms](#)
[Fields](#)
[Field types](#)
[Notifications](#)
[Composer Templates](#)
[Utilities](#)
[Email Logs](#)
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[Help](#)

[New Entry](#)
[Export Entries](#)
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Filter Entries

< 1 2 3

#	<input type="checkbox"/>	Edit	Author	I.P. Address	Entry Date ▲	Edit Date	Status	Affiliation (agency or organization)	Country	Email	First Name	Research Suggestion	Last Name
101	<input type="checkbox"/>			70.211.138.25	2015-06-16 - 17:28		open	NOAA-NMFS		claire.simeone@noaa.gov	Claire	Centralized data repository, monitoring and assessment platform for marine mammal health data	Simeone
102	<input type="checkbox"/>			69.166.47.99	2015-06-16 - 16:49		open	Washington State University		heiko@vetmed.wsu.edu	Heiko	1. Activity patterns and energetic costs of land use by polar bears. 2. Defining the extent of interactions between grizzly bears and polar bears. 3. Constraints on lipivory in polar bears.	Jansen
												Nobody knows the number of sponge species living in Alaskan waters. We started working on Aleutian sponges in 2004 and since then described 32 new sponge species from this area. (For a list of publications see <a href="http://www.spongetaxonomics.de">www.spongetaxonomics.de</a> )	

# Field types

Freeform Pro 4.2.3

- Forms
- Fields
- Field types**
- Notifications
- Composer Templates
- Utilities
- Email Logs
- Preferences
- Help

These field types are exclusively for Freeform and are not the same as ExpressionEngine custom field types.

Freeform allows third party developers to make their own field types, much like native ExpressionEngine field types. [View the Freeform Field type development documentation.](#)

Freeform Field type Name	Description	Version	Status	Action
Checkbox	A field with a single checkbox with "y" or "n" options.	4.2.3	Installed	Uninstall
Checkbox Group	A field that contains a group of checkboxes for multiple choices.	4.2.3	Installed	Uninstall
Country Select	A dropdown selection of countries. Loaded from ./system/expressionengine/config/countries.php	4.2.3	Installed	Uninstall
File Upload	A field that allows a user to upload files.	4.2.3	Installed	Uninstall
Grid	A basic grid field to hold tabular data.	1.0	Installed	Uninstall
Hidden Field	A hidden field for collecting information the user does not need to interact with.	4.2.3	Installed	Uninstall
Mailinglist	A field that allow users to subscribe to ExpressionEngine Mailing List module lists.	4.2.3	Installed	Uninstall
Multiselect	A field that has a list of items that can have multiple selections.	4.2.3	Installed	Uninstall
Province Select	A dropdown selection of Canadian provinces and territories. Loaded from Freeform language file.	4.2.3	Installed	Uninstall

## Title & Period

- Include the long title of up to **120 characters**, as well as a suggested short title of up to 60 characters.
- Provide a start and end date (i.e., month and year) for your project. Projects are not eligible for funding if they do not have a start and end date.
- Project duration should include final reporting requirements and attendance at the final project completion.
- If this is a resubmission of a previous proposal, use the section provided (limit 300 characters).
- Applicants should indicate which collaborative funding opportunities for which they are applying.
- **Any text over the character or word limit will not be saved.**

**THE TITLE FIELDS MUST BE COMPLETED BEFORE NAVIGATING TO ANOTHER SECTION.**

### Short Title (60 characters)

### Long Title (120 Characters)

This is a resubmission from a previous year:

Start Month

Start Year

End Month

### Collaborative Funding Opportunity

I am granting permission for this proposal to be shared with the following external organizations:

- Oil Spill Recovery Institute
- National Center for Coastal Ocean Science
- Bering Sea Fisheries Research Foundation
- Pollock Conservation Cooperative Research Center
- None of the Above**

## Descriptors

**Research Category** (Select one Primary Research Category)

**Secondary Topic**

### Large Marine Ecosystem(s)

Select the Large Marine Ecosystem(s) (LME) in which your study will take place. LMEs are defined in the NPRB Science Plan and shown below. You may select more than one if appropriate.

- Gulf of Alaska
- Bering Sea/Aleutian Islands
- Arctic Ocean

**Research Approach** (Optional)

Select all applicable Research Approaches included in your study

- Monitoring
- Process Studies
- Retrospective Studies
- Modeling

**Species** (Optional)

Enter the scientific or common name(s) of the species to be studied. Type the name followed by the comma or enter key in the box below. Repeat as needed.

### Keywords

Provide 3-10 keywords to describe your project. Type the keyword followed by the comma or enter key in the box below. Repeat as needed.



# North Pacific Fishery Management Council: Research Priorities

Query List Reports

## Research Priorities Query and Records List

Export

Plan Teams -

- Joint Groundfish PT
- Crab PT
- Scallop PT

Council Actions -

Ecosystem Area -

- Gulf of Alaska
- Bering Sea
- Aleutian Islands
- Arctic

Council Priority -

Research Status -

10 records per page

Search:

ID	Title	Council/SSC Priority	Research Status	Ecosystem Area	Related Council Action
144	District-wide survey for demersal shelf rockfish in Southeast Alaska	Critical Ongoing Monitoring	No action	Gulf of Alaska	Harvest specifications
145	Continuation of State and Federal annual and biennial surveys	Critical Ongoing Monitoring	Underway	Gulf of Alaska, Bering Sea, Aleutian Islands	Harvest specifications
146	Improve surveys in untrawlable habitat, particularly for rockfish, Atka mackerel, and sculpins	Urgent	Partially underway	Gulf of Alaska, Bering Sea, Aleutian Islands	Harvest specifications
147	Life history research on data poor or non-recovering crab stocks	Important	No action	Bering Sea	Harvest specifications
148	Spatial distribution and movement of crabs relative to life history events and fishing	Urgent	Partially underway	Bering Sea	Harvest specifications
149	Improve handling mortality rate estimates for crab	Important	Partially underway	Gulf of Alaska, Bering Sea, Aleutian Islands	Harvest specifications
150	Maintain the core biological and oceanographic data (e.g., biophysical moorings, stomach data, zooplankton, age 0 surveys) ...	Critical Ongoing Monitoring	Underway	Gulf of Alaska, Bering Sea, Aleutian Islands, Arctic	Ecosystem impacts



NPRB Programs



Select a Program and Cycle

Search for and select a cycle below. You can also create a new cycle.

Create New Cycle

CORE

2017 RFP

2016 RFP

2015 RFP

2014 RFP

2013 RFP

2012 RFP

2011 RFP

2010 RFP

2009

2008

2007

2006

GSRA

2017 GSRA

2016 GSRA

2015 GSRA

2014 GSRA

2013 GSRA

2012 GSRA

2011 GSRA

2010 GSRA

2009 GSRA

AMSS

2017 AMSS

2016 AMSS

2015 AMSS

2014 AMSS

2013 AMSS

2012 AMSS

2011 AMSS

2010 AMSS

2009 AMSS

Other programs

2017 Outreach

2016 Arctic

2014 LTM

2010 GOAIERP

2007 BSIERP

2017 AMSS

2016 AMSS

2015 AMSS

2014 AMSS

2013 AMSS

2012 AMSS

2011 AMSS

Advanced search options

1-10 of 28 results < >

FISH AND INVERTEBRATES

NPRB ACTIVE PROJECTS

ARCTIC OCEAN 1

BERING SEA/ALEUTIAN ISLANDS 6

FISH HABITAT 6

GULF OF ALASKA 8

HUMANS 5

LOWER TROPHIC LEVEL PRODUCTIVITY 6

MARINE MAMMALS 3

NPRB ANNUAL PROJECTS 27

NPRB LONG-TERM MONITORING PROJECTS 1

OTHER PROMINENT ISSUES 4

SEABIRDS 1

### 1426 Long-term Monitoring Project: Ecosystem monitoring and detection of wind and ice-mediated changes through a year-round physical and biogeochemical mooring in the Northeast Chukchi Sea

Advances in instrument technology now allow us to autonomously sample the marine ecosystem from the vantage of multiple disciplines and across multiple trophic levels. We propose to deploy a subsurface mooring on the Northeast Chukchi Sea shelf to record with high temporal resolution throughout the year, including the under-sampled and poorly understood seasons when sea ice typically inhibits ship-based sampling. The mooring will record physic...



[Seth Danielson](#) • [Catherine Lalande](#) • [Russell Hopcroft](#) • [Thomas Weingartner](#) • [Peter Winsor](#)  
• [Claudine Hauri](#) • [Andrew McDonnell](#) • [Seth Danielson](#)

[Info](#) [Documents](#)

### 1501 How many krill are there in the Bering Sea and Gulf of Alaska? Quantitative acoustic assessment of euphausiid abundance and their role in these ecosystems.

Euphausiids (or 'krill') play a key role in many ecosystems including the eastern Bering Sea (EBS) and Gulf Alaska (GOA), channeling energy from phytoplankton to fish and higher predators, yet their abundance is difficult to measure. We will develop an improved euphausiid standing stock estimate in the EBS and GOA using 1) new measurements and modeling of the acoustic and material properties of euphausiids and 2) acoustic-trawl survey data whi...



[Joseph Warren](#)

[Info](#) [Documents](#)

### 1503 Tracing sea ice algae in Arctic benthic food webs using the sea ice diatom biomarker IP25

[← Back to Search Results](#)
[Project Metadata](#)

# 1426 Long-term Monitoring Project: Ecosystem monitoring and detection of wind and ice-mediated changes through a year-round physical and biogeochemical mooring in the Northeast Chukchi Sea

## Abstract

Advances in instrument technology now allow us to autonomously sample the marine ecosystem from the vantage of multiple disciplines and across multiple trophic levels. We propose to deploy a subsurface mooring on the Northeast Chukchi Sea shelf with high temporal resolution throughout the year, including the under-sampled and poorly understood seasons of winter and spring. The mooring will record physical, nutrient and carbonate chemistry, particulate, phytoplankton and zooplankton data sets, thereby providing an unprecedented view into the mechanistic workings of the Chukchi shelf ecosystem. The mooring's payload is unique for the Chukchi and Alaskan Beaufort seas, and rare for any continental shelf mooring. The proposed project will aid management of subsistence resources and potential commercial fisheries through an ecosystem-based approach to resource management. We will be able to estimate the particulate organic carbon flux to the benthic community with organic matter and, in turn, feed the walrus that forage here. The mooring will also monitor the presence of arctic cod (a subsistence resource; marine mammal prey) and euphausiids (fish and whale prey).

Back	Alt+Left Arrow
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Reload	Ctrl+R
Save as...	Ctrl+S
Print...	Ctrl+P
Cast...	
Translate to English	
View page source	Ctrl+U
Inspect	Ctrl+Shift+I

## Purpose

Arctic regions are projected to strongly reflect the impacts of an altered climate. The selected site is well situated to monitor the state of ocean acidification, changes to the shelf's nutrient and carbon cycles, and how changing wind, wave, and ice affect the regional oceanography. The proposed mooring will provide biogeochemical model validation data and improve our understanding of the marine carbon pump and shelf-basin exchanges. The project will complement water column, benthic, and passive acoustics sampling carried out by other programs, including serving as a year-round anchor for the Distributed Biological Observatory, an initiative to collect physical, chemical, and biological observations in the Western Arctic and Subarctic.

## Supplemental Information

- Additional subject keywords:
- climate change
  - ecosystem monitoring
  - Nutrient Dynamics
  - ocean acidification
  - acoustic backscatter
  - Sea Ice loss
  - Biological hotspot
  - Biogeochemical modeling
  - Marine Carbon Cycle

## Online links

- <http://mather.sfos.uaf.edu/~seth/NECEM/>

## Contacts

- Seth Danielson**  
 University of Alaska Fairbanks  
*Research Assistant Professor*  
[sldanielson@alaska.edu](mailto:sldanielson@alaska.edu)
- Catherine Lalande**  
 Universite Laval  
*Research associate*
- Russell Hopcroft**  
 University of Alaska Fairbanks  
*Professor*
- Thomas Weingartner**  
 University of Alaska Fairbanks  
*Professor*
- Peter Winsor**  
 University of Alaska Fairbanks  
*Associate Professor of Oceanography*
- Claudine Hauri**  
 University of Alaska Fairbanks  
*Research Professional*
- Andrew McDonnell**  
 University of Alaska Fairbanks  
*Assistant Professor*
- Seth Danielson**  
 University of Alaska Fairbanks  
*Research Assistant Professor*

## Keywords

- acoustic backscatter
- Arctic Ocean
- Biogeochemical modeling
- Biological hotspot
- climate change
- ecosystem monitoring
- Marine Carbon Cycle
- Nutrient Dynamics



# NPRB Publication Library

These NPRB publications have resulted from projects funded by NPRB in its Core Program (formally known as the Integrated Ecosystem Research Program (GOAIERP), Bering Sea Project (BSP), and Graduate Student Research Program (GSRA)). To search for publications related to these programs, enter the abbreviation of the research program (i.e., Gulf of Alaska, Bering Sea, or Graduate Student) in the keyword or project # search.

Enter **GOAIERP, BSP, or GSRA** in the keyword or project # search for publications related to these programs.

NPRB should be acknowledged in all publications, articles, or media releases derived from NPRB-funded projects. For more information on how to acknowledge NPRB, contact NPRB Program Support Specialist Susan Dixon ([susan.dixon@nprb.org](mailto:susan.dixon@nprb.org)) at the acceptance stage. The acknowledgment should be included in the acknowledgement section of your paper.

## Search Publications

Keyword Search

Project Search (#)

Submit

PROJECT	PUB #	CITATION	LINK
207	1	Rodionov, Sergei N. "A sequential algorithm for testing climate regime shifts." <i>Geophysical Research Letters</i> 31, no. 9 (2004). doi:10.1029/2004GL019448.	<a href="#">Link to Publication</a>
301	2	Ryer, Clifford H, Allan W Stoner, and Richard H Titgen. 2004. "Behavioral Mechanisms Underlying the Refuge Value of Benthic Habitat Structure for Two Flatfishes with Differing Anti-Predator Strategies." <i>Marine Ecology Progress Series</i> 268. <i>Marine Ecology Progress Series</i> : 231-43. <a href="http://s3.pubs.nprb.org/project_0301_ryer_meps_2004.pdf">http://s3.pubs.nprb.org/project_0301_ryer_meps_2004.pdf</a> .	<a href="#">Link to Publication</a>

The screenshot shows the AGU Publications website interface. At the top, there is a navigation bar with 'AGU PUBLICATIONS' and links for Journals, Topics, Books, EOS, Membership, AGU.org, Search Help, and Log in. Below the navigation bar is a search bar with the text 'All AGU Journals' and a placeholder 'Enter search terms, e.g. title, author, keyword'. The main content area features the journal title 'Geophysical Research Letters' and the subtitle 'AN AGU JOURNAL'. The article title 'A sequential algorithm for testing climate regime shifts' by Sergei N. Rodionov is prominently displayed. Below the title, it indicates 'First published: 6 May 2004' and 'DOI: 10.1029/2004GL019448'. A sidebar on the right shows a thumbnail of the journal cover and a link to 'View issue TOC Volume 31, Issue 9 16 May 2004'.

# Proposed Approach

## NPFMC

- link project-specific info in the research status field of the research priorities spreadsheet and detail progress (e.g., new, underway, completed, ongoing)
- develop hierarchical structure to group research priorities in broad headings

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## NPRB

- provide link in RFP to NPFMC priorities and AKFIN website to enable researchers to determine relevance to specific Council priorities
- add information in proposal submission system to allow researchers to link their proposal to NPFMC priorities
- develop a keyword function in project catalogue to associate projects to specific NPFMC priorities
- develop database and interface to support queries



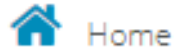


## Relevance to Fishery Management and Ecosystem Understanding

- Habitat studies
- Inform stock assessment
- Incidental catch and reduce bycatch and waste
- Impacts on protected species
- Improve data and monitoring
- Inform multispecies dynamics and ecosystem interactions
- Inform management, policy, access, and resource utilization

## NPFMC/SSC 9 General Priorities

- Reduce and Avoid Impacts to Habitat
- Prevent Overfishing
- Manage Incidental Catch and Reduce Bycatch and Waste
- Reduce and Avoid Impacts to Seabirds and Marine Mammals
- Improve Data Quality, Monitoring and Enforcement
- Preserve Food Web
- *Promote Sustainable Fisheries and Communities\**
- Promote Equitable and Efficient Use of Fishery Resources
- Increase Alaska Native & Community Consultation



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Cycle



Assignments



Proposals



Reviewers



Reviews



Decisions



Awards

matt

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PROPOSAL ADMIN HOME / DASHBOARD / DECISIONS

Decisions - Showing 153 decisions



Search..

Ref. #	Caption	Board Decision	A.P. Decision	SP Decision	SP1	SP2	OSRI	P1	P2	P3	P4
1585	Krakens and mermaids	FUND	+	Tier 1	N/A	N/A	Fair	N/A	N/A	N/A	N/A

# Research Themes

- Oceanography and Productivity
- Fishes and Invertebrates
- Marine Birds and Mammals
- Human Dimensions
- Multispecies and Ecosystem Interactions

# Research Approaches

- Community Involvement
- Cooperative Research with Industry
- Technology Development
- Data Rescue

Plan Team Recommendations for New Research Priorities				D2 Plan Team Recommendations JUNE 2016			
Research ID	Title	Description	Plan Teams	Research Status	Ecosystem Areas	Keywords	Management Objective
511	Computerized image analysis of current camera sled data	Assessment of existing database of camcued images is needed to provide scallop counts and sizes, contributing to abundance estimates. Additionally, sediment and habitat type and presence of other organisms can be assessed.	Scallop PT - Priority: Urgent	Underway	Gulf of Alaska, Bering Sea, Aleutian Islands	Fish and Fisheries Monitoring, Scallop	Prevent overfishing
513	Evaluate extent and importance of parasites in scallop populations	Samples from Bering Sea scallops with weak meats were collected and sent to the ADF&G Anchorage Pathology Lab for analysis of any evidence of disease and/or parasites. The results showed that the scallops were infected with an apicomplexan-like parasite. To further evaluate the geographic extent and infection rates of this parasite, a sampling effort was initiated in July 2015 to collect samples from select locations across the state, from Yakutat to the Bering Sea.	Scallop PT - Priority: Important	Partially underway	Gulf of Alaska, Bering Sea, Aleutian Islands	Environmental Influences on Ecosystem Processes	Preserve Food Web
531	Collect growth data for Bering Sea crab stocks	Pending feedback from PT	Crab PT - Priority: Urgent	Partially underway	Bering Sea	Stock Assessment	Prevent overfishing
532	Natural mortality estimation for crab stocks	Pending feedback from PT	Crab PT - Priority: Important	No action	Gulf of Alaska, Bering Sea, Aleutian Islands	Stock Assessment	Prevent overfishing
533	Explore geospatial approaches for time series of survey data	Develop criteria necessary for using Thorson's geostatistical model as an alternative to the designed-based estimates for abundance indices used in stock assessments. Assess whether there are certain life history characteristics or levels of aggregation where this model should be used.	Joint Groundfish PT - Priority: Critical Ongoing Monitoring	Partially underway	Gulf of Alaska, Bering Sea, Aleutian Islands	Stock Assessment	Prevent overfishing
534	Develop technical interaction model for BSAI MSE	Pending	Joint Groundfish PT - Priority: Urgent	Underway	Bering Sea, Aleutian Islands	Stock Assessment	Prevent overfishing
535	Development and evaluation of data poor and data moderate methods	Several methods are currently in use around the country for setting harvest specifications for data-poor and data-moderate stocks (corresponding, respectively, to Tiers 6 and 4-3 of the BSAI and GOA groundfish harvest control rules), several others are currently under development, and still others could be developed in the future. There is a need to continue development of such methods and to conduct comparative performance tests of the methods.	Joint Groundfish PT - Priority: Strategic	Underway	Gulf of Alaska, Bering Sea, Aleutian Islands	Stock Assessment	Prevent overfishing
536	Evaluate incorporation of climate change impacts into stock assessments	Climate change impacts are becoming an increasingly important consideration for long term planning and should be included in projections of exploitable fish stocks and associated ecosystem components. Incorporation of climate-based parameters into fish stock assessments will allow for exploration of harvest scenarios in the context of evolving climate conditions. Research is needed to explore how these parameters can be integrated into fishery stock assessments.	Joint Groundfish PT - Priority: Strategic	Underway	Gulf of Alaska, Bering Sea, Aleutian Islands	Ecosystem Modeling, Stock Assessment	Prevent overfishing
537	Identification of best practices for long term storage of ageing structures	Archived ageing structures such as otoliths can deteriorate over time unless they are stored in appropriate media. Loss of archived structures reduces the potential for obtaining information through techniques such as micro-chemical analysis. Best practices for long term storage are currently not well established.	Joint Groundfish PT - Priority: Strategic	Partially underway	Gulf of Alaska, Bering Sea, Aleutian Islands	Fish and Fisheries Monitoring	Improve Data Quality, Monitoring and Enforcement

