

Request for Letters of Intent

Deadline: September 19, 2014



The **Pollock Conservation Cooperative Research Center (PCCRC)** at the University of Alaska Fairbanks announces an opportunity for funding of marine research in the North Pacific Ocean and Bering Sea. The PCCRC was established to improve knowledge relevant to the commercial fisheries of the Bering Sea and Aleutian Islands through research and education. Funding for the PCCRC is provided by members of the Pollock Conservation Cooperative a fishing cooperative of companies that operate catcher/processors in the Bering Sea and Aleutian Islands pollock fishery. The PCCRC Web site is: <http://www.sfos.uaf.edu/pcc/>

The PCCRC funds investigators and students doing research on pollock, salmon, other groundfish species, the fisheries for these species, and on marine mammals and marine resource economics and policy. The PCCRC annually identifies subjects of particular interest and gives the highest consideration to proposals within those areas (see Research Priorities below). Total awards from this competition cycle are subject to availability of funds and will not exceed approximately \$400,000.

REQUIRED CONTENT

Each LOI must include a *cover sheet* with information described, a short *narrative* (**3 pages or less**), a one page *anticipated budget request*, and a one-page *resume* for each Principle Investigator (PI) or co-PI. The LOI and all ancillary documents must be formatted in 10-12 point Times, Times New Roman, or Arial font. Non-conforming LOIs will not be considered.

The purpose of the LOI is to identify projects that have sufficient merit and relevance to justify requesting a full proposal. Therefore, review of the LOI will emphasize the quality of the formulation of a question, the adequacy of the plan of execution, and the overall relevance to PCCRC research priorities.

Cover Sheet

The LOI cover sheet must include the name, affiliation, phone number, and e-mail address of the principal investigator, the names and affiliations of co-principal investigators, the anticipated funding request, proposed project duration, and the signatures of the principal investigator and an appropriate department level authority.

Narrative

The LOI does not need to include extensive background information, formal statistical designs, full analytical protocols or approved permits for projects involving animal or human subjects; those will be considered as part of the review of full proposals requested for successful LOIs. The narrative of the LOI should consist of three sections:

Proposed Project — Describe the project, emphasizing the research question to be asked or problem to be solved and, where appropriate, state formal null hypotheses.

Design — Briefly describe how the project will address the research question or problem to be solved. Indicate sampling and analytic strategies and, where appropriate, PI expertise with

the proposed methods. This section should also describe how the project will be managed and who will be responsible for each major element of the project.

Relevance — Describe the type of information that the project will produce and its relevance to focus areas described in PCCRC Research Priorities for 2014 section below.

Budget

The budget page should present a preliminary budget in table format as shown below. This table should be accompanied by a short and written justification, as appropriate, to provide additional detail useful in budget consideration such as student funding, large or unusual purchases, sub-awardees, need for travel, etc.

	Year 1	Year 2	Project Total
Salaries/Wages			
Benefits			
Services			
Commodities			
Travel			
Student Aid			
TOTALS			

The duration and cost of projects should be based upon realistic estimates of anticipated research effort and costs. Final proposal budgets may differ slightly from preliminary budget estimates submitted in the LOI. PCCRC projects will be funded as cost reimbursable grants through the University of Alaska Foundation. PCCRC funds *cannot* be used to support facility and administration (indirect) costs. Proposals are funded annually; continuation funding for multi-year projects is conditional on satisfactory progress.

CV/Resumes

Resumes are limited to one page and should document Investigator's qualifications, experience and expertise appropriate to the proposed project.

SUBMISSION

The LOI should be routed according to the policies of the principal investigator's research unit for pre-proposal documents. At a minimum, the LOI cover page must bear the signatures of the PI and a department level authority.

All LOIs will be reviewed by the PCCRC Advisory Board. Evaluation criteria will include scientific merit, relevance to PCCRC priorities, and, if applicable, prior performance on PCCRC projects. Invitations to submit full proposals will be issued by October 6, 2014. The deadline for full proposals is November 14, 2014. Funding decisions will be made in early February, 2015 with funds available starting April 1, 2015.

Project concept questions: Heather McCarty, (907) 351-6794 or hdmccarty@gmail.com
Dr. Keith Criddle, (907) 796-5449 or kcriddle@alaska.edu

LOI technical questions: Ruth Post, Program Coordinator, 474-6782 or rmpost@alaska.edu

The complete LOI, including cover, narrative, budget and resumes, must be submitted as a single PDF file no later than 5:00 PM, September 19, 2014, to Ruth Post: rmpost@alaska.edu

PCCRC 2015 RESEARCH PRIORITIES

For the 2015 funding cycle, the PCCRC is especially interested in trying to improve knowledge through research and education in the following subject areas.

1. Incidental Species Caught in Groundfish Fisheries, in order of priority, with the focus on the Bering Sea and Aleutian Islands

Salmon
Halibut
Crab
Shark
Octopus

Research is desired to assist in the development of:

- a) ***Gear Technology*** — Further research is needed on technology, gear modifications and fishing practices for minimizing incidental catch, particularly of PSC species such as salmon, crab and halibut in the Alaska Pollock fishery.
- b) ***The Effects of Halibut Growth, Maturity, Migration and Bycatch Mortality on Operation of Groundfish Fisheries*** — Recent information indicates the size-at-age for mature halibut has changed. There is a need to understand the potential causes and ramifications of current harvest strategy policies as concerns halibut growth and mortality. It is important to determine effects of migration on the Pacific halibut population and management. Examination of the International Pacific Halibut Commission's migration model may be a first step.
- c) ***Stock Assessment*** — There is a need to improve biological data collection (e.g., species stock distribution, age, size, maturity, and sex) of some incidental catch species (e.g., sharks, skates, octopus, squid, sculpins, and grenadiers) to better quantify the potential effects on these stocks including especially improved understanding and estimates of discard mortality.
- d) ***Salmon Carrying Capacity of the Bering Sea*** — Understanding the impact Asian hatchery salmon have on the carrying capacity of the Bering Sea is important in upcoming salmon bycatch management strategies. A synthesis of work previously done may be the first step to identify gaps in the research and improved understanding.
- e) ***PSC Avoidance Measures*** — Retrospective analysis of the impact of Chinook and Chum salmon PSC avoidance measures on the BSAI pollock fishery.

2. Habitat and Ecosystem Considerations

Research is desired to assist in the evaluation of habitat and ecosystem considerations, including:

- a) A GIS relational database for habitat, including development of a time series of the spatial intensity of interactions between commercial fisheries and different habitat types, as well as the degree to which certain habitat types are currently being avoided by commercial fisherman and the effects of this avoidance. This information is needed to evaluate impacts of changes in EFH on the growth, reproduction, and distribution of fish and shellfish.

- b) The role of habitat in the abundance of fish populations. Specifically, studies are needed to evaluate if/how habitat-forming species influence growth, natural mortality, reproduction, and recruitment success of FMP species and their preferred prey.
- c) Possible impacts of climate change to the Bering Sea seafloor habitat, such as changes in patterns of benthic feeding by marine mammals as well as the effects of currents and waves and the natural restorative processes associated with them.
- d) Assess the impact of increases in whale populations on lower trophic energy pathways and implications for FMP species.
- e) The spatial extent of skate egg case concentration sites in the Bering Sea.

3. Factors Influencing the Sustainability of Marine Mammal Populations

Fur Seals

Since 1988 the Eastern Pacific stock of fur seals has been listed as depleted under the Marine Mammal Protection Act and the factors most likely to have impacts on northern fur seals are not well understood. There is need for research to:

- a) Improve understanding of post-weaning foraging strategies and factors that contribute to survival and growth of weaned pups over the first 2-3 years of their lives.

4. Alaska Pollock Stock Dynamics and Condition

Research is desired on general environmental and ecological factors affecting pollock stocks, including but not limited to:

- a) The impacts of climate change on stock abundance and distribution;
- b) The relationship of primary and secondary production levels to pollock recruitment;
- c) Variation in growth rates (expected changes in mean body mass at age, length-weight patterns) in space and time;
- d) How water temperature and anticipated changes in water temperature affect pollock roe maturation;
- e) Predation impacts on pollock, especially by salmon;
- f) How pollock diets and pollock condition affect pollock fatty acid profiles both temporally and spatially;
- g) Competition between growing numbers of large predators and pollock for prey.

5. Resource Utilization

- a) Roe is the most valuable Alaska pollock product by pound weight, and roe sales provide a significant fraction of the total wholesale value of the products produced by the Alaska pollock fisheries. However, pollock roe is purchased almost exclusively by buyers in Japan and Korea, and further processed into a small group of traditional products popular with older consumers in these countries. As a result of the limited and declining nature of the traditional roe markets in Japan and Korea, the relative value of pollock roe has declined over the past decade. As such, research is sought to develop new product forms for pollock roe that will find buyers in non-traditional markets and find favor with younger consumers.

- b) Better technology may be available for identification of non-metallic foreign materials particularly in whitefish fillet block products. There is a need for a third party assessment of new, improved, and cost effective technologies to further reduce the incidence of process contaminants.

6. Market Dynamics and Competitiveness

Russian Pollock Production, Reprocessing and Product Distribution

Accurate, up-to-date information on the production and distribution of Russian pollock in global markets is lacking and difficult to obtain. There is a need for research into current production and product forms and their distribution in the domestic Russian market and key markets around the world as compared to the same for pollock caught in Alaska.

7. Survey Methodology

PCCRC is interested in proposals on how to improve abundance estimation precision for groundfish species in the Aleutian Islands, including studies that look at both survey design aspects, and at the design of subsequent field studies, to develop new survey approaches or address practical considerations relevant to alternative method and designs.