Alaska Sea Grant State Fellows Program

North Pacific Research Board position description

The North Pacific Research Board was established to support research in Alaska marine ecosystems to inform ecosystem understanding and effective and sustainable fisheries management.

This position will be in the North Pacific Research Board (NPRB) Anchorage office. The NPRB staff is responsible for supporting the Board and the Science Panel and Advisory Panel in developing research priorities and guiding the scientific direction of the organization, structuring and implementing research investments, program management, and support and outreach to the Alaska marine research community. The Alaska Sea Grant Fellow would assist NPRB staff in this capacity. This fellow would provide general support for these efforts and also assume responsibility and ownership for one or more discrete projects, such as those outlined below. The explicit tasks and projects would be dependent on further discussions and consideration of NPRB needs and the respective skills and interests of the fellow.

Analyses of NPRB Research Investments

Review of statistics for research investments
NPRB has supported research in Alaska for including more than 400 individual research projects and integrated research programs and $100 million in research investments. This organization would greatly benefit from better records of where these investments have been made (e.g., geographic area, ecosystem component, research approach and methodologies). Statistics on these investments are wanting and would be useful to guide strategic planning efforts, inform board and panel members, and publicize this information to the research community, state and federal agencies, fisheries and resource extraction industries, local and native communities and the general public.

Review of research impacts on science and management
NPRB currently lacks data on how the research funded has impacted the development of marine science in a variety of fields and the development of policy and management decisions. Documenting and analyzing these effects would be of great value and comprise an extensive research project.

Documentation and tracking of publications related to NPRB funding
NPRB maintains requests that researchers provide information and reference for publications that result from investments. These records are incomplete and disorganized. A fellow might take on this role to better archive and track publications and develop a system to ensure publications from researchers and graduate students are received, archived, and accessible.

Research to Support the Development of Internal and External Publications

Research related to the revision of the Science Plan and Contributions to annual and biannual reports
NPRB is currently revising its Science Plan and may require assistance in the late stage development of particular elements related to outlining and describing past programs, current research priorities, and future strategic direction. NPRB also develops biannual reports to characterize recent expenditures and results. The fellow would be tasked with helping to collect and develop this information.

Contribution to development of research manuscript on the development and implementation of Integrated Ecosystem Research Programs and best practices and lessons learned
NPRB has implemented two multiyear, multi-institutional integrated ecosystem research programs to better understand physical and biological processes, mechanistic processes that influence ecosystem structure and function, and ecosystem dynamics and interactions [e.g., www.nprb.org/bering-sea-project, www.nprb.org/gulf-of-alaska-project]. NPRB is currently implementing a third program in the Arctic...
www.nprb.org/arctic-program. The Science Director and both Program Managers responsible for these programs have initiated effort to develop a peer-reviewed manuscript on how to effectively design and implement these large-scale research efforts. The fellow might contribute to these efforts as well.

Communications and Outreach

**Contribution to webpage development**

NPRB is in the process of redeveloping the website for the organization and restructuring content. The fellow may work on developing project profile pages and develop ideas for web content. Additionally, the fellow would maintain media assets, develop announcements and highlights related to funded research and updates on program development, or important developments related to marine science or marine resource management.

**Map projects and geo-reference research using innovative apps and interactive programs**

New programs and applications are available that help organizations to map and highlight important elements related to program development or project results [https://storymap.knightlab.com/#examples]. NPRB aims to utilize these approaches to develop more effective interactive visual and digital displays of the research supported by the organization. Ideas and insights as to how to implement this project and skills to implement this work would be greatly valued.

Systems Development, Data Management and Archives

**Systems development and programming**

Several online systems have been developed to support proposal submission, peer review of proposals, and project management. NPRB works with an external contractor, Resource Data Incorporated, to conceive, develop, and implement these systems through coding and software development. For fellows with experience and interest in computer science, there would be opportunities to strategize further refinements and development of these systems.

**Database management**

NPRB supports multiple ongoing research efforts and requires that data and metadata be developed and archived for public access after research in completed and an embargo period has elapsed. Data management and archival is currently outsources to Axiom Data Solutions. The fellow might work with Axiom staff and NPRB programmatic staff to ensure these systems are functioning in an optimal manner and develop new ideas to support Principal Investigators and better archive and disseminate data and results.

**Publications database and Image library**

NPRB collects publications related to the research it supports and collects an extensive collection of photography on scientific research and marine life through its annual photo contest. Both represent valuable archives. A fellow might work to better organize and develop these archives.

General Office Support

The fellow would be expected to assist with various tasks and duties related to the support of NPRB routine operations, including but not limited to the processing of research proposals, preparation for and coordination of Board and Panel meetings, and planning and implementation of tasks related to the annual Alaska Marine Science Symposium.