Pribilof Islands Marine Ecosystem (PRIME) Initiative

Unanga[°] (Aleut) communities on St. Paul and St. George are directly experiencing a rapidly transforming marine ecosystem, including alarming declines of fur seals, sea lions, seabirds, fish, and invertebrates, with real costs to wildlife, human and ecosystem health, local economies, and culture. Specifically, laaqudan or northern fur seals (NFS) are one of the highest priorities to the Pribilof Islands Aleut Communities of St. Paul and St. George Islands. NFS have declined to less than ¼ of the peak historic population estimate of 2.1 million animals.

There are currently limited implemented protection measures for wildlife (i.e., Pribilof Islands Habitat Conservation Zone, Steller sea lion buffer areas), which have never been evaluated and on-going commercial fisheries management in the Bering Sea has not included tribal government or local Indigenous voices in decision-making in a meaningful way, resulting in an ongoing and urgent need for innovative and adaptable local solutions that provide for environmental, social, and economic successes of our communities. Our desire for an all-inclusive scientific understanding that is grounded in traditional (Indigenous) and local knowledge is essential to facilitate tribal government leadership and restore and protect Unangan connections to our marine ecosystem.

Our vision is to jointly designate a co-managed marine area (between the tribal governments of St. Paul and St. George and the federal government) that will adequately address our conservation concerns while ensuring the sustainability of our local economies and provide continued fishing opportunities, which are intricately tied to our marine environment. Thus, we are developing a marine management initiative to meet the shared conservation and protection goals of our communities for the Pribilof Islands Marine Ecosystem (PRIME; defined as 100 nm around the Pribilof Islands; Fig. 1). The communities have identified additional potential strategies for each island that fall within the larger PRIME, such as cultural heritage and subsistence use areas.

The governance framework of the PRIME will reflect tribal government-led, co-management of the waters within 100 nm of the Pribilof Islands (Fig. 1). Although still a relatively novel structure in the U.S., Indigenous-led conservation is gaining visibility and viability at the highest levels of government. In addition, the reinstatement of the Northern Bering Sea Climate Resilience Area is a model for Indigenous-led conservation efforts in Alaska that provides protections for the region's ecosystem and appropriately considers cultural and subsistence services to Alaskan Natives. The recent affirmation of Indigenous Peoples' inherent rights by the federal government underscores the timeliness of adapting an equitable comanagement framework to the PRIME model. The proposed mechanism for establishing this area would utilize the existing National Marine Sanctuary Act, which includes existing processes for fishery management actions through the North Pacific Fishery Management Council, but includes the needed flexibility to achieve co-management of the PRIME ecosystem which has not yet been implemented as proposed here.

In Canada, co-management of protected and conserved areas are linked with pursuing reconciliation with Indigenous Peoples. For example, 18 national parks have been established with a co-governance framework with First Nations and the Government of Canada. Co-management has the potential to provide environmental and societal benefits, as well as technical and financial support in management activities. It can incorporate local and traditional knowledge into resource management decisions and facilitate approaches that are more culturally and ecologically appropriate. A meta-analysis of more than 130 community-based marine co-management arrangements worldwide found that, with strong leadership and support, co-management can contribute to the successful management and sustainability of aquatic resources (Gutierrez et al. 2011).

We recognize the political, social, economic, ecological, and logistical challenges of implementing comanagement of the marine environment. It will require unique challenging institutional arrangements, but builds from a strong foundation. We have grounded our efforts on Indigenous values and leadership, such as applying a "Two-eyed Seeing" framework, which was introduced by Mi'kmaw Elder Dr. Albert Marshall, to appropriately guide the process through these challenges. Two-eyed Seeing is "learning to see from one eye with the strengths of Indigenous knowledges and ways of knowing, and from the other eye with the strengths of Western knowledges and ways of knowing, and to using both these eyes together, for the benefit of all."

We believe that tribal government-led, dynamic conservation and management measures will result in the best management of the PRIME, and provides for the inclusion of our communities, affected industry and other stakeholders, and state and federal representatives throughout the process and implementation. This is an opportunity for our communities to come together to steward our home waters and to ensure the proper management of the PRIME, rather than an ecosystem that is solely managed, species by species, by the federal government. Indigenous-led conservation efforts in Canada and across the Arctic will provide guidance in successful co-management frameworks that provide streamlined management from our tribal to federal governments and can accomplish timely and meaningful regulations and policies for the PRIME.



Figure 1. The Pribilof Islands Marine Ecosystem (PRIME), showing the 100 nm boundary, lactating female laaquda \hat{x} (northern fur seal) foraging area (purple shaded polygon) and seabird foraging area (green shaded polgygon). The PRIME is designed primarily for the swift recovery and long-term conservation of laaqudan, or northern fur seals, given the alarming decades long decline of NFS in the Pribilof Islands.