Preserving U.S.-Russian Cooperation in Science and Marine Stewardship

Opportunities for Civil Society in the Bering Strait

Margaret Williams Anand Patel





WORKSHOP REPORT MAY 2025



Arctic Initiative

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About the Authors

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About the Report

This report is based on insights from a three-day workshop hosted by the Arctic Initiative at Harvard Kennedy School's Belfer Center for Science and International Affairs on December 3-5, 2024. Participants included scientists, environmentalists, and Indigenous leaders from the United States, Norway, Canada, and Russia. Participants identified potential opportunities for civil society to preserve science and conservation partnerships in the Bering Strait during a period of high geopolitical tension between the United States and Russia.

About the Arctic Initiative

The Arctic has become a crucible in which the fast-warming climate is generating cascading impacts both within and beyond the region. It is compounding economic and social changes facing the region's economies and Indigenous and local cultures. And it is complicating governance within and among Arctic nations, as well as relations among Arctic-interested countries more widely.

Launched in 2017, the Arctic Initiative seeks to contribute to the interdisciplinary, multidimensional, collaborative analysis and responsive actions that this complex of problems and opportunities requires. Our team of faculty, fellows, and staff works closely with officials and experts across the circumpolar region to advance work in five focus areas: enhancing community resilience in a changing Arctic, developing responses to the local and global impacts of permafrost thaw, addressing issues in Arctic Ocean management, charting a course for future Arctic governance, and training the next generation of Arctic leaders.

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Introduction

The Bering Strait, the narrow passage shared by the United States and Russia that connects the Pacific and Arctic Oceans, is a critical migration route for marine life, particularly for marine mammals and birds, and a valued cultural resource for Arctic Indigenous peoples on both sides of the strait. Today, growing shipping, industrial, and military activity, combined with rapid climate change, threatens Arctic ecosystems and the communities that depend on them.

As the Cold War ended, the Bering Strait Region (BSR) became, for a time, a region of active cooperation and exchange among Indigenous peoples of the United States (Alaska) and the Russian Federation (Chukotka), as well as among scientists and conservation groups working to conserve shared wildlife and ecosystems.

However, in response to Russia's invasion of Ukraine in 2022, most countries in North America and Europe halted cooperation with Russia on science and conservation, jeopardizing thirty years of hard-won progress in environmental protection and climate research.

Due to the transboundary nature of environmental risks and climate impacts, this halt in cooperation limits both the United States and Russia's ability to evaluate, understand, and respond to shared threats, ranging from toxic algal blooms to collisions, groundings, oil spills, and wildlife strikes from ship traffic. Information about these changes - acquired from both U.S. and Russian observers - is crucial for crafting appropriate responses to help human communities and nature adapt and build resilience. Past successful research collaborations between U.S. and Russian scientists on subjects such as permafrost, marine ecosystems, and wildlife highlight both the value of and potential for ongoing scientific dialogue despite political tensions.

Although U.S. foreign policy toward Russia appears to be shifting toward an approach that may favor renewed U.S.-Russian engagement, current areas of common interest do not include cooperation in science and conservation. Thus, the role of civil society in monitoring and protecting the unique natural and cultural aspects of the Bering Strait remains paramount.

This report presents key insights from a December 2024 workshop hosted at Harvard Kennedy School and provides recommendations for non-governmental stakeholders, such as scientists, universities, research institutions, and nonprofit organizations, to advance cooperation on climate research, conservation, and maritime safety in the BSR during a period of high geopolitical tension. While not comprehensive, it aims to reflect the core insights shared by workshop participants.

Priority Area One: Maritime Safety

Current Status of Cooperation:

- Russia's invasion of Ukraine severed cooperation between the U.S. Coast Guard and Russia's Marine Rescue Service, which previously coordinated closely on emergency prevention, preparedness, and response in the BSR.
- Western sanctions have pushed Russia to develop a closer economic relationship with China, leading to more transits through the Bering Strait by large cargo vessels and oil tankers transporting resources from Siberia to Asia.
- As a result of growing ship traffic combined with ever more frequent extreme weather events (such as Typhoon Merbok), people, wildlife, and ecosystems in the BSR are more vulnerable to shipping accidents such as groundings, collisions, or oil spills. The increased risk of oil spills is particularly concerning, as spills are extremely difficult, if not impossible, to contain and clean up due to the strait's remoteness and harsh conditions.
- On a positive note, routing measures and Areas to be Avoided in the Aleutian Islands and the northern Bering Sea, designations previously approved by the International Maritime Organization, remain in place and demonstrate how these management areas contribute to accident prevention in the region.

Opportunities & Recommendations:

- Deploy New Technologies: Participants identified several technologies that could help protect wildlife and ecosystems. The deployment of Automated Information Systems (AIS) to track vessel traffic can be an effective, cost-efficient method to ensure compliance with shipping routes and accident prevention. The Marine Exchange of Alaska has created an AIS network along the entirety of Alaska's coast, allowing the Marine Exchange to track the movement, speed, and other data from thousands of vessels transiting Alaska's marine waters. When a ship signals distress or ventures into protected marine areas, the Marine Exchange alerts the relevant authorities, supporting the U.S. Coast Guard and the shipping industry alike in a shared effort to ensure safe and environmentally sound navigation. "Geofencing," a GPS-based technology, can help monitor sensitive or protected areas in the strait by alerting both mariners and observers when a ship approaches, enters, or leaves a virtually fenced area.
- Engage Local Observers in Collaborative Ship Traffic Management Schemes: Governance does not only depend on action by governments; civil actors can contribute to maritime safety, too. Through its Arctic Watch program, the Marine Exchange of Alaska collects real-time observations about maritime hazards, wildlife movements, subsistence activities, or other conditions from community observers, scientists, fishermen, and others in both the United States and Russia; it then relays that information to ships with the goal of increasing maritime domain awareness. Conservation groups, academics, and local residents should identify additional secure communication pathways for people from both sides of the strait to share information on ecosystems, wildlife, oceanographic conditions and related topics to programs like Arctic Watch.
- Analyze Existing Standards: Shipping experts should conduct a "gap analysis" of marine protection regulations, protocols, and standards of care that now govern shipping in the Bering Strait to identify where loopholes exist and how best to strengthen the current regulatory framework as shipping activity grows.
- Advocate for Improved Maritime Domain Awareness: Mariners, conservation groups and coastal community members should make a common case to regional, state and federal authorities for significantly improved marine domain awareness in the Bering Strait.

The American island of Little Diomede, Alaska, left, and on the right, the Russian island of Big Diomede, are seen from the Finnish icebreaker MSV Nordica in the Bering Strait, on July 14, 2017. (AP Photo/David Goldman, File)

Priority Area Two: Scientific Research

Legacy of Success:

- Over the last 30 years and even during the Cold War, bilateral and multinational programs united Russian and Western scientists under a shared mission to discover and describe the complexities of many Arctic systems. This international cooperation led to a greater understanding of the oceanographic, ecological, and cultural systems in the Bering and Chukchi seas, enabling better predictive understanding. Scientific research programs have included the long-term ecological research of the Bering Sea and other Pacific ecosystems (BERPAC), which was promoted through Area V of the U.S.-Russia Environmental Agreement, and more recently internationally coordinated efforts such as the Distributed Biological Observatory (DBO), the Beringia International Heritage Program, and many others.
- These joint efforts often strengthened and guided by Indigenous observations – enabled experts to describe various transboundary impacts of a warming Arctic, include the shifting of wildlife populations (seabirds moving NW into Chukchi Sea, the Bering Sea pollock stock moving further north, and the presence of new whale species north of the Bering Strait); shrinking sizes and/or abundances of forage fish, amphipods, and bivalves; and the rise of new phenomena such as harmful algal blooms.

Current Status of Cooperation:

- Most research cooperation and information sharing between Russian, U.S., and Western scientists ceased following the 2022 invasion of Ukraine.
- The interruption in joint fieldwork, data collection, observation, and analysis between Russia and Western countries – as well as the exclusion of Russian scientists from Western forums, conferences, and international academic journals – is creating large gaps in the international community's understanding of changes now underway in the BSR. Rebuilding dialogue

and partnerships is essential not only for the strait but for the resilience and sustainability of the entire Arctic region.

• At the same time, strong anti-Western sentiment inside Russia is cause for extreme caution to avoid compromising the safety of Russian scientific partners, who find themselves in challenging circumstances.

Opportunities & Recommendations:

- Identify Depoliticized Areas for Cooperation: Because wildlife and marine and coastal ecosystems on both sides of the Bering Strait are experiencing acute impacts of warming air and sea temperatures, transboundary cooperation in research, adaptation and resilience building is more urgent than ever. Topics identified by workshop participants that could serve as "neutral" or depoliticized themes for research cooperation in the region include monitoring permafrost thaw, harmful algal blooms, and wildlife migrations.
- Focus on Scientist-to-Scientist Connections: Arctic scientists from Western nations should, when practical, invite Russian counterparts to co-author presentations at scientific conferences and papers for peer review. Such collaborations, especially with long-time colleagues, could begin to rebuild needed communication and exchange of ideas. Care should be taken to ensure the personal safety of Russian participants who may be taking risks to communicate with Western partners.
- Invest in Early-Career Researchers: During and since the Cold War, the involvement of young scientists in international conferences, research, and fieldwork made possible long-term relationships and scientific cooperation between Western and Russian experts. Western universities and research institutions should support, through funding, mentorship, and collaborative research opportunities, early-career researchers including from Russia to ensure a pipeline of Arctic science expertise. Networks and organizations highlighted by the participants include the Association of Polar Early Career Scientists (APECS), International Arctic Science Committee (IASC), and Arctic Science Summit Week (ASSW).
- Engage Arctic Observer States: Scientific institutions in non-Arctic, non-Western countries such as Japan and Korea, two nations long involved

in Arctic research that also retain working relationships with Russia, could play a beneficial role by hosting workshops and collaborative initiatives that would allow for Russian participation in discussions and information sharing.

Integrate Arctic Indigenous Knowledge: In order to craft effective solutions to meet Arctic challenges such as sea ice loss, species redistributions, and much more, managers and mariners must have access to a variety of information sources in addition to Western science. Indigenous communities across the Arctic offer additional knowledge which should be included to complement scientific expertise. Furthermore, because Indigenous communities have their own transboundary communication networks, these relationships can be tapped to overcome official and bureaucratic limitations on information-sharing.

Conclusion

Despite the heightened tension between Russia, the United States, and other Western nations, solving planetary challenges, such as Arctic sea ice loss, permafrost thaw, and biological diversity loss, requires all nations to work together. In the Bering Strait – a location where all of these challenges intersect – civil society can assume a leadership role in devising and implementing solutions that consider the transboundary nature of the place. Universities, independent research institutions, conservation groups, and coastal communities must take a "pragmatic but principled" approach toward cooperation with Russian non-governmental entities, with a view toward the future beyond the war in Ukraine. Workshop participants concluded that such an approach could be accomplished without legitimizing the current Russian regime.



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