



International Workshop on Arctic Ocean Observation:  
Future Collaboration by Research Vessels and Icebreakers  
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### Abstract

#### Discovery across Disciplines: R/V-based International Collaboration for Science, Law, and Policy

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This talk offers **two perspectives on best utilizing Japan's new Arctic research vessel as an international collaboration platform:**

1) An interdisciplinary perspective, derived from being a law professor and the only social scientist on the icebreaker USCGC Healy for two cruises mapping the bathymetry and sampling the geology of the US extended Continental Shelf in the Arctic. Natural and social scientists worked together at sea to interpret and apply in real time the same provisions of the UN Convention on the Law of the Sea (UNCLOS). Benefits included strengthening both sides' understanding of the law and science needed to fulfill our shared mission and preparing me to work with yet other scientists on the US State Department's documentation of scientific and legal arguments to support US continental shelf rights in the Arctic and beyond. Data collected still contributes to scientific understanding of the marine geophysics and geology of the Arctic for purposes unrelated to the continental shelf program.

2) An international perspective, proposing treaties as sources of research questions for vessel-based research. When natural *and* social scientists have complementary expertise on the same treaty, they can design a research cruise together for pure and applied research outcomes. These could include collecting data for better understanding of ecosystems, and the applied science and policy of ecosystem assessments for, e.g., area-based management tools or environmental assessments. Several treaties depend on the availability of timely biological and chemical oceanography and other marine scientific measurements. One tool, known as Ecologically and Biologically Sensitive Marine Areas or EBSAs, can be used across different treaties. EBSAs originated with the Convention on Biological Diversity but are used by various international bodies. EBSAs simply provide scientific and technical information on ecological & biological features and identify the most important areas. EBSAs do NOT prescribe management measures, say what activities should or should not take place, or touch on jurisdiction.

The Arctic Council Working Group CAFF has identified [11 Arctic EBSAs](#). EBSA definitions must be updated over time. International legal experts are meeting this month to discuss ways to modify definitions and add new areas. Given the rapid changes in the marine Arctic, cruises that can contribute knowledge from natural science, social science and Indigenous knowledge about these areas can help EBSAs and other tools keep pace to reflect those changes to policy makers and communities.