Research collaboration key to ocean and Arctic success

Tight government budgets mean it's a major challenge to fund needed infrastructure to do ocean research. Allies are working together to maximize resources.

Gilles G. Patry

If the coasts of four continents, in strategic ocean regions around the globe, Canadian scientists are "listening to the world beneath the waves.

The Ocean Tracking Network, started in 2008, uses a system of Canadian-built acoustic receivers arranged along the sea floor to record the movement of sea animals as small as crabs and as large as whales which are fitted with tiny acoustic transmitters. Each time one of the creatures passes over a line of receivers, it is recorded and the world's most comprehensive picture of the movements of ocean life emerges.

The same sensors can also measure ocean temperature, depth, salinity, currents, chemistry, and more, making the sea creatures themselves intrepid gatherers of important ocean data. All of these data are freely available online, positioning the scientific community in support of the development and use of both marine and Arctic research infrastructure. Ultimately, it will lead to recommendations that allow all nations to articulate the contributions that infrastructure makes sense for two reasons: marine and Arctic environments are both often hostile, remote, and difficult work- environments; and the infrastructure required to conduct research in both environments has a tendency to be large-scale and exceptionally expensive.

Ensuring that all nations involved can use the research infrastructure they fund to the maximum extent possible is the central goal of the symposium. The participants also hope to identify current trends in marine and Arctic research and the development of the associated infrastructure; articulate the contributions that infrastructure can make to scientific research and innovation capacity; and share experiences, lessons learned, and best practices.

Halifax Marine Research Institute (HMRI) Inc., headquartered in Dalhousie University’s Ocean Sciences Building, is leveraging Canada’s existing research capabilities to make use of our most precious resource – our ocean. By brokering interdisciplinary partnerships among industry, government labs and academia, HMRI is creating knowledge clusters that will propel Canada to the forefront of marine research.

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