

AINA NEWS

Ag 1054 Off-Grid Hydroponic Agriculture in the North

Canadian Northern Economic Development Agency is investing \$305,000 in a two-year project for the Arctic Institute of North America (AINA) to develop and test an off-grid hydroponic farming system that would supply local produce and could be replicated in other northern communities. This project, which takes place at the AINA's Kluane Lake Research Station in Silver City, includes upgrading and testing their Ag1054 hydroponic unit, offering local training and community programming, compiling and publishing research and creating a feasibility plan for using hydroponics in surrounding communities. AINA is providing \$80,700 for a total project cost of \$385,700. Visit Ag1054—Yukon produce grown north, <https://ag1054.ca/>.

Research in Antarctica

AINA associate director, Brent Else, will head to Antarctic this winter, joining a diverse team of other scientists on board the Royal Canadian Navy vessel HMCS *Margaret Brooke*. Else will concentrate on collecting water samples from various depths of the ocean column to measure dissolved CO₂ for analysis. CO₂ moves from the atmosphere into the ocean and down through the water column where it is sequestered for thousands of years. The oceans of the polar regions are enormous carbon sinks, but as oceans warm and circulation patterns change, this process will slow over time. This research will contribute to an understanding of these mechanisms and associated changes.

AINA at ArcticNet 2024

ArcticNet 2024 marks the 5th International Arctic Change conference. This annual event brings together a broad community of researchers, scientists, policymakers, rights holders, and other stakeholders to address the most pressing issues facing the Arctic. AINA was well represented at the conference this December in Ottawa. Director Maribeth Murray co-chaired a meeting of the Canadian Polar Data Consortium, which aims to provide ethically open, accessible, and comprehensive digital resources to a diverse and global audience of data users. Associate Director Brent Else co-chaired several key sessions, while Shannon McAllister, manager of Research Data, Collects and Digital services hosted meetings and presented a poster on the institute's new online educational platform. AINA's postdoctoral associate Shivangi Mishra presented on her research in the Arctic Genomics Project. AINA hosted a booth where conference participants and visitors, including researchers, students, Indigenous community members and policymakers, learned about the advantages of publishing in *Arctic* and the learning tools and research initiatives going on at the institute.