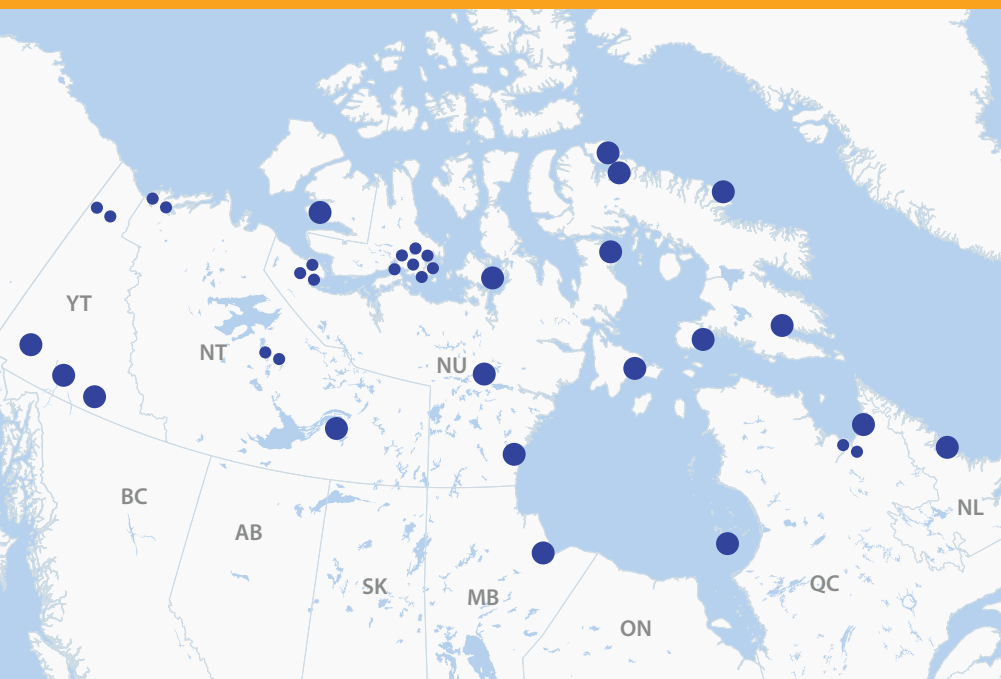


Projects funded by Polar Knowledge Canada 2017-19

Polar Knowledge Canada (POLAR) has a unique role to advance our collective understanding of polar environments by mobilizing current knowledge produced by others, in a meaningful and accessible way, to create new knowledge and to address the gaps and concerns of Northern communities.

43 Science and Technology and Knowledge Management projects across Canada's North have received funding as a result of POLAR's 2017-2019 Competitive Funding Process.



Distribution of POLAR-funded projects



Photos: POLAR, Jean-Sébastien Moore, ACTUA

SCIENCE AND TECHNOLOGY

This program conducts and supports science and technology research and monitoring across Canada's North.

| PROJECT | INSTITUTION |
|--|--|
| CAT-TRAIN: Canadian Arctic Tidal Transect Research and Infrastructure Network | Arctic Research Foundation |
| The state of Northwest Territories country food systems: Planning for long-term sustainability | Aurora College |
| Improving Canada's climate change projections by incorporating Arctic shrub feedbacks | Carleton University |
| Gamèti Diesel Use Reduction Strategy | Community Government of Gamèti |
| Laboratory testing of a cross-flow turbine in super-cooled water | Énergies Marines Renouvelables Québécoises |
| Kitikmeot wolverine monitoring - non-invasive and community-based initiative | Government of Nunavut |
| Gwich'in Tribal Council's multi-use on-the-land centre energy upgrade and training project | Gwich'in Tribal Council |
| Arviat Wind + Solar Resource Assessment | Hamlet of Arviat |
| Promotion and dissemination of the CAIMAN network environmental information database | Institut National de la recherche scientifique |
| Inuit knowledge and science to provide weather baseline data, weather knowledge, and weather information service for Clyde River * | Ilisagvik Society |
| Lutsel K'e diesel use reduction strategy | Lutsel K'e Dene First Nation |
| What mechanisms drive habitat choice by caribou? * | Environmental Resource Management |
| Nunavut metals management program demonstration project: Environmental risk mitigation, legacy metal waste reduction, and community training in Cape Dorset, Nunavut | Qikiqtaaluk Business Development Corporation |
| Achieving benefits through greywater treatment and reuse in Northern buildings and communities | Terragon Environmental Technologies, Inc. |
| Small scale primary sawmill and district biomass heating initiative | Teslin Tlingit Council |
| Inuit Qaujimagatugangit study into impacts of snow goose overpopulation on land, animals and people near Coral Harbour and Arviat, Nunavut | Kivalliq Wildlife Board |
| Ecological monitoring in the North Baffin region: open-access data diffusion, technological innovations, and development of new community partnerships | Université Laval |
| Migrations of sea run Arctic char in a changing Arctic: Integrating acoustic telemetry, physiology, and genomics | Université Laval |
| The Arctic Zoonoses Network: a community-centred monitoring network for vector-borne diseases and wildlife zoonosis in a changing Arctic | Université de Montréal |
| Ecosystem health of Arctic freshwaters | Université du Québec à Chicoutimi |
| Development of a multi-scale cryosphere monitoring network for the Kitikmeot region and Northwest Territories using modelling and remote sensing | Université du Québec à Sherbrooke |
| Impacts of climate change on wildfire risk in boreal forests in the Northwest Territories | Université du Québec en Abitibi-Témiscamingue |
| Cryosphere-climate monitoring at Kluane Lake Research Station, Yukon | University of Calgary |
| The DEW-line for caribou and muskox health: Generating, integrating, and mobilizing local, traditional and scientific knowledge for pro-active wildlife management | University of Calgary |
| Community-driven sea ice and ocean research in the contrasting coastal domains of Hudson Bay | University of Manitoba |
| Multi-scale remote sensing of sea ice in the Kitikmeot Sea: Utilizing new Earth observation constellation missions for monitoring and predicting sea ice conditions | University of Victoria |
| Wastewater in the Canadian North: Mitigating ecotoxicological risks for sustainable growth | University of Winnipeg |
| Old Crow Solar Project | Vuntut Gwitchin Government |
| Tijchq Aquatic Ecosystem Monitoring Program | Wek'èezhii Renewable Resources Board |
| Consortium for Permafrost Ecosystems in Transition | Wilfrid Laurier University |
| Mapping permafrost vulnerability in Vuntut Gwitchin Traditional Territory: Climate change impacts on landscapes and hydrology | Yukon College |

December 2017

KNOWLEDGE MANAGEMENT AND ENGAGEMENT

This program supports polar research by strengthening partnerships and collaboration, helping ensure that research results inform policies and programs, and supporting the next generation of northern researchers.

| PROJECT | INSTITUTION |
|---|--|
| Mobilizing knowledge for developing Indigenous community champions for climate change adaptation in Yukon | Arctic Institute of Community-Based Research |
| Education and outreach to support the development of science, technology, engineering, and mathematics (STEM) opportunities for youth in the Beaufort Delta region, NWT | Aurora College |
| Food security and sustainable fishery development: Seasonal and spatial variations in hunting and fishing in Gjoa Haven, Nunavut | Carleton University |
| Growing North | Growing North |
| Enabling the co-production of Inuit and scientific knowledge through integrated information management | Inuit Tapiriit Kanatami |
| Kitikmeot Caribou Inuit Qaujimagatugangit Mapping and Monitoring Project * | Kitikmeot Region Wildlife Board |
| Food, fire and ice: Integrating local knowledge, plant response, and cryosphere dynamics to predict future food and fuel | Memorial University |
| Pond Inlet: Attakalik Community Hall Solar Panel * | Municipality of Pond Inlet |
| Enhancing capacity for Northern-led monitoring of snow, ice and ocean conditions | Ocean Networks Canada |
| The Hudson Bay Consortium: Mobilizing knowledge for environmental stewardship | The Arctic Eider Society |
| IMIQ-AQUABIO: A community-driven monitoring program of water quality and contaminants in the George River watershed | Université du Québec à Trois-Rivières |
| A weather station network to support safe travel and build Nunavummiut environmental monitoring capacity | University of Calgary |

* Agreement under negotiation

POLAR operates the Canadian High Arctic Research Station (CHARS) campus year-round, giving researchers a permanent place to conduct research and foster ongoing connections to Indigenous partners, communities, and other Arctic partners.

For more information about research priorities, projects and funding, or about Polar Knowledge Canada, connect with us at:

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