

Working together in a changing Canadian Arctic

ArcticNet

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Introduction

Executive Summary

Since 2004, ArcticNet's network of partnerships, collaborative work, and breadth of research has set the stage for Canada to address the challenges imposed by climate and socioeconomic change in the North. Our renowned network's footprint has further expanded to include international impact and outreach. As Canada's Arctic research network, we convene an extensive number of universities, northern communities, Indigenous Peoples, organizations, governments, and industry. ArcticNet has harnessed its role in building synergies across sectors and catalyzed engagement. Our training and research programs achieve innovative, discovery science and support northern—and Inuit-led research through our North-by-North Program. This intertwining of knowledge systems is unique in the research community and represents an immeasurable asset for Canada. As a testament to this success, ArcticNet received news from Canada's Strategic Science Fund (SSF) in December 2023 that the network is funded under this new program until 2029. Changes will occur throughout our governance, but the network is poised to undergo these changes and evolve towards a transformed entity. Since 2019, ArcticNet leadership has been working relentlessly to ensure a sustainable future for the network. We have achieved a major milestone by securing SSF funding.

Through transformative research, training, and knowledge mobilization, ArcticNet projects are fostering the health and environmental stewardship of northern communities and ecosystems. Projects in its latest phase (2019-2024) are multidisciplinary and organized into five main themes: marine systems; terrestrial systems; Inuit health, education and adaptation; northern policy and development; and knowledge transfer. The projects boast impressive national and international connections and collaborations, while addressing local to global priorities.

For the first time in ArcticNet's history, our Annual Scientific Meeting (ASM) was held in the North with 450 participants, of which approximately 200 were northerners (43%). Northern participation is always critical to the ASM, ensuring Northerners are an integral part of the conversation around current results emerging from Arctic research and the future of research in Canada. This was especially important this year, with the ASM being hosted in the North. ASM2023 convened the northern research community for more than 40 presentations, and four panel discussions, all of which were live-streamed. The scientific programming demonstrated a commitment to research excellence, cross-cultural exchanges, and prime networking opportunities.

The Network continues to develop meaningful and impactful partnerships with a diverse range of partners throughout the year. Notably, the Council of Canadian Academies' report on Northern Research Leadership and Equity, which was spearheaded by ArcticNet alongside over 40 other partners across the country, launched with great success in late 2023. The report provides valuable insight into Canada's future in Arctic research.

As the funder for northern research in Canada, ArcticNet supported 514 Highly Qualified Personnel (HQP) across universities and government departments, with 175 northern HQP (34%). The highest percentages of HQP are found among graduate students (21% Master, 18% PhD), followed by research assistants (23%), technical staff (16%), postdoctoral fellows (8%), research associates (8%), undergraduate students (5%), and professional end users (1%). The last year of this final phase (2019-2024) shows a decrease in the number of projects and HQP, as the projects are winding down with funding ending in prior to or in 2024.

ArcticNet continues to support a wide array of training and funding opportunities for HQP to develop the capacities and diversified skills needed for research excellence.

ArcticNet's successful co-written proposal to SSF (ArcticNet, Inuit Tapiriit Kanatami/Inuit Circumpolar Council, and Polar Knowledge Canada) will anchor a national Arctic science program and expand on ArcticNet's successes. ArcticNet has clearly carved out a niche for itself in the Canadian Arctic research scene. Finally, after five years of strategic planning and writing, a viable future has been sketched while ensuring the canvas of northern research be inclusive, collaborative, and grounded in research that supports a healthy, vibrant North.

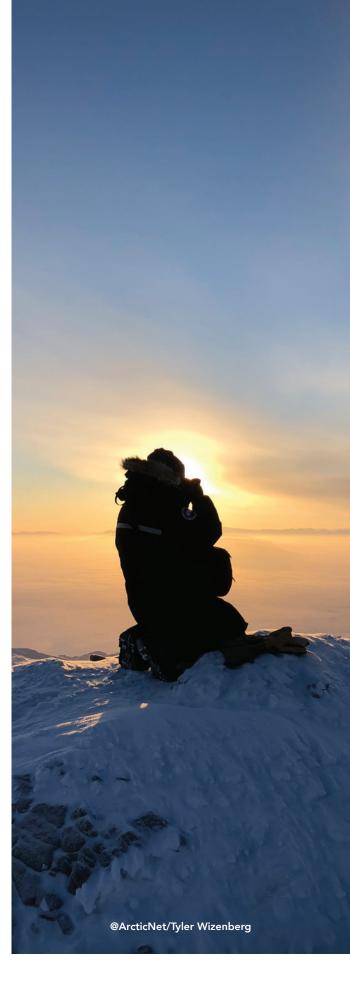
Dr. Jackie DawsonScientific Director

Donna KirkwoodChair of the Board of Directors

Philippe Archambault

Co-Scientific Director

Dr. Christine BarnardExecutive Director



ArcticNet by the Numbers

active projects

21North by
North Program

36
Academic
Program

33

Universities, Colleges, Northern postsecondary institutions, Inuit communities

105 researchers

61%

57

Male

Female

9% Indigenous

514 HQP

47% 1% 52%

ale Non-Binary Fem

27% Indigenous

175 peer-reviewed

workshops hosted by ArcticNet funded projects to mobilize knowledge

Annual Scientific Meeting 2023

450+
Participants

hosted in Iqaluit, NU

43%

Northern participants

About ArcticNet

Vision

A future where improved observations, modelling, capacity-building, and knowledge exchange enable researchers, Inuit, Indigenous communities, Northerners, and decision-makers to co-develop adaptation strategies minimizing negative impacts and maximizing positive outcomes resulting from the transformation of the Canadian Arctic.

Mission

- Deliver world-class science addressing national and Indigenous priorities,
- Advance and prioritize Indigenous-led research in the North, for the North, and by the North,
- Connect Canada's diverse Arctic knowledge assets to enhance discovery, decision making, inclusion, and leadership,
- Advance and transform the management of Arctic science in Canada through support of Indigenous self-determination in research,
- Train and mentor Canada's next generation of northern and southern Arctic scholars,
- Train and mentor Arctic youth in Indigenous self-determined research, research management and administration, and knowledge coproduction,
- Support decision makers and Arctic leaders through rapid knowledge assessments and policy briefings, and
- Enhance international leadership and Canadian-led innovations in Arctic science.

Building on two decades of research, relationship building, and knowledge sharing to understand the changing Arctic region, ArcticNet is well poised to continue building coordinated, collaborative, and sustainable northern research in Canada.

Funding Research

Academic Research Program

The Academic Research Program included 36 active projects in the fiscal year 2023/24 organized into five main themes: 1) marine systems; 2) terrestrial systems; 3) Inuit health, education, and adaptation; 4) northern policy and development; and 5) knowledge transfer. Together, these projects boast over 295 publications of the 330 in the 2023/24 fiscal alone, 158 of which are peer-reviewed.

North-by-North Program

The research focus areas supported through this program include permafrost; hydrology; northern business and economy; Indigenous approaches to environmental management; health and community; oral history; institutional case studies; climate-sensitive health outcomes; Indigenous mental health; Inuit-led conservation science; and northern food systems.

Inuit Qaujisarnirmut Pilirijjutit (IQP)

The Inuit Qaujisarnirmut Pilirijjutit (IQP), supported 17 active projects in the 2023/24 fiscal year. The Inuit Research Management Committee (IRMC) continues to ensure that funded projects respond to regional research priorities and regional standards for research and community engagement through the annual review process as the projects wrap up.

Northern Research Leaders Program (NRLP)

The Northern Research Leaders Program (NRLP) supported 28 research projects and research-support positions in the 2023/24 fiscal at Yukon University, Aurora College, Nunavut Arctic College, and Labrador Campus of Memorial University substantially expanding research capacity and impact in Northern universities and colleges. Across programs and projects, local capacity building and training occupies a central role. The Territorial Advisory Committee (TAC) ensures that the funded projects respond to the post-secondary institutions' research priorities and mandates.

High Impact Publications Program

The High Impact Publications Program was launched two years ago in response to feedback received from the Research Management Committee (RMC) and a larger community of Arctic researchers. The intent of the program was to make use of the diverse data sets and knowledge generated throughout ArcticNet's rich history via interdisciplinary teams with the end goal of publishing high impact synthesis papers. The program funded 10 highly productive multidisciplinary research teams. Together, these projects boast over 38 publications in the 2023/24 fiscal alone, 26 of which are peer-reviewed. This exceeded ArcticNet's expectations and achieved the objective of fostering further collaboration amongst teams and ultimately lead to the synthesis of results and high-impact publications.

International Collaboration Highlight-Joint Funding Initiative with Scottish Alliance of Geoscience, Environment & Society (SAGES)

In early 2024, ArcticNet and the Scottish Alliance for Geoscience, Environment and Society (SAGES) partnered to launch a joint fund to foster international collaborative work between both ArcticNet and SAGES colleagues. The fund supports research expenses such as fieldwork, equipment, workshops, and more. Two ArcticNet researchers were able to benefit from the joint-initiative. First, Dr. Luke Copland, University of Ottawa (ArcticNet), will collaborate with Dr. Anna Crawford, University of Stirling (SAGES), to have a more comprehensive understanding of Arctic ice hazard populations and their risks to shipping. Second, Prof. Guillaume St-Onge, Rimouski Institute of Marine Sciences (ArcticNet), will collaborate with Dr. Craig Smeaton, School of Geography and Sustainable Development, University of St Andrews (SAGES), to enhance and expand research on the role of submarine mass movement events as a mechanism to trap and store carbon in near shore fjordic environments.







knowledge, building partnerships, training highly qualified personnel (graduate students, research assistants and associates, etc.), and mobilizing knowledge to end-users. The following highlights showcase a few of the currently active projects in ArcticNet's funding portfolio; to read about these and other projects in more detail, please visit

www.arcticnet.ca.

Marine Systems

Walrus Health and Population Dynamics in the Context of Climate Change

Led by Mathilde LaPointe St-Pierre at the Nunavik Research Centre, this project focuses on safeguarding the vital walrus population against climate change. This project achieved remarkable strides in community-led research and collaboration. By integrating traditional knowledge with bio-logging techniques, the project unveiled critical insights into walrus ecology and the impacts of climate change on marine ecosystems. The project tagged 18 walruses in Kangiqsujuaq, providing relevant data on their migration patterns and habitat use. Local hunters were trained in biologging techniques. Furthermore, the project's engagement with 32 local experts has fostered a deeper understanding of the nuanced changes occurring in the environment. Through extensive interviews and validation tours, the project highlighted the community's firsthand observations of climate-driven transformations, ranging from sea ice dynamics to shifts in wildlife abundance and distribution. The findings are slated for publication in two scientific papers and a pamphlet for results presentations to community members.



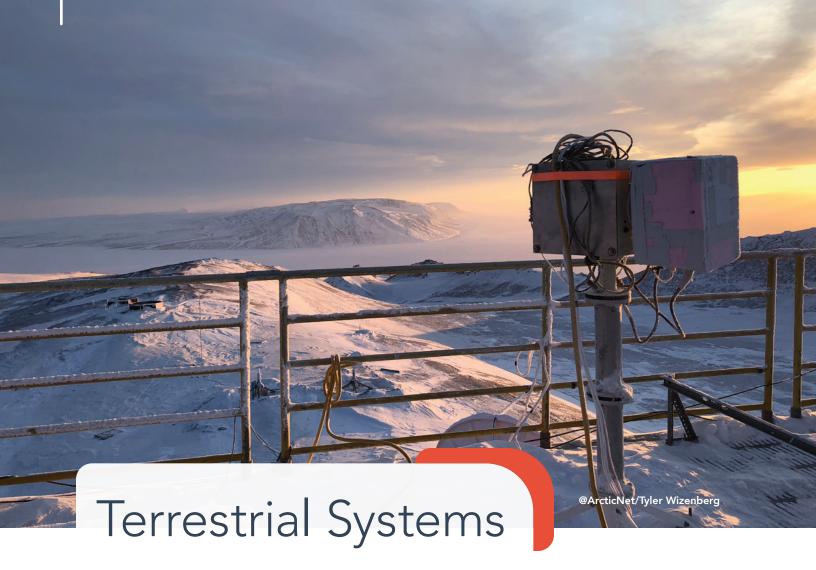
Qikiqtani inshore fisheries surveys: studying coastal marine species in Kinngait, Sanikiluaq, Sanirajak and Igloolik

Led by Dr. Scott Grant, the Qikiqtani inshore fisheries surveys project continues to make significant strides in understanding coastal marine species in Kinngait, Sanikiluaq, Igloolik, and Sanirajak, Nunavut. In partnership with the Qikiqtaaluk Corporation and local Hunters and Trappers Associations (HTAs), the project utilizes the RV Ludy Pudluk and community support vessels, fostering community-led research. This year, the project successfully completed all planned research activities, including sea bottom mapping, drop camera surveys, and exploratory fishing. Notably, over 15 local Inuit crewmembers received comprehensive training in vessel operation, research equipment operation, safety protocols, and COVID-19 mitigation, empowering them to undertake research activities independently in the future. The project's community capacity-building efforts extended to outreach and training with high-school students, showcasing potential career opportunities in ocean-related fields. Additionally, the project enhanced its communications activities, including the establishment of social media presence and the development of a digital library platform for easy access to project materials. Despite weather and vessel maintenance challenges, the project remained on track, with plans to expand training initiatives and research efforts in the coming years.



Nutrient fluxes and living marine resources in the Inuit Nunangat

Led by Dr. Jean-Éric Tremblay, under the Academic program, the project evaluates how components of the Arctic nutrient distribution network connect and respond to the changing physical environment and how this affects the magnitude and nutritional quality of organic matter production within the Canadian Arctic. The results will contribute to the eastern Arctic and Subarctic processes by helping communities and local governments prepare for possible changes in the availability and nutritional value of marine foods. Together with local knowledge, the results will assist with current and future food security assessments and inform decisions on adapting to the changing marine environment. The results will shed light on marine food web health and dynamics in response to change in the Arctic.



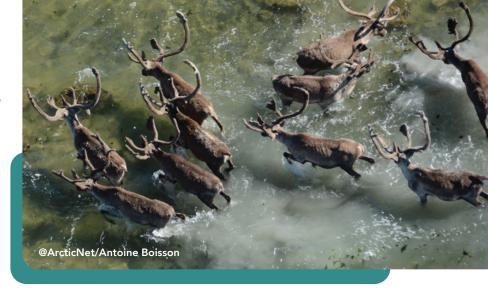
Investigating Water Quality in Fish-bearing Lakes in Imaryuk

This project, led by Shanay Williams at the Inuvialuit Regional Corporation (IRC), has made significant strides in understanding and safeguarding the water resources vital to the Inuvialuit communities of Inuvik and Tuktoyaktuk. The project developed a comprehensive water quality database, laying the foundation for long-term monitoring and early contaminant detection in the Husky Lakes drainage area. Through its activities, it has contributed to the empowerment of community members to actively participate in environmental stewardship efforts. Notably, the project prioritized community involvement, employing and training local youth in research methodologies and sampling. It also engaged Elders in developing The Elders Voices on Water

Quality book, which will highlight the experiences of Elders using water on the land. Furthermore, the project's emphasis on integrating traditional knowledge and western scientific models has enriched the understanding of water quality perceptions among the Inuvialuit, paving the way for informed decision-making and sustainable resource management practices. By sharing findings through various communication channels and engaging stakeholders at community meetings and tours, the project has fostered transparency and collaboration, ensuring that research outcomes are relevant and accessible to the communities they serve. As the project concludes, its impact reverberates beyond its duration, with plans for continued monitoring and future research endeavors poised to build upon its foundational work, thus securing the environmental health and cultural heritage of the Imaryuk region for generations to come.

Inuit knowledge and molecular biology addressing industrial impacts in the Kivalliq

This is another project that exemplifies the essence of community-driven research and collaboration. Led by Dr. Vincent L'Hérault from ArctiConnexion and supported by the Kivalliq Wildlife Board, the project focuses on monitoring the impacts of the Agnico Eagle Mine's Meliadine project on freshwater and marine ecosystems in Kangiglinia and Qamani'tuaq. By combining traditional Inuit knowledge with molecular biology, the project not only addresses environmental concerns, but also empowers local communities by involving them in the research process. Through various activities such as fieldwork, training sessions, and community engagements, the project builds capacity and expertise locally while fostering intergenerational knowledge sharing. The project provided lab and statistical training to two local team members from Rankin Inlet through workshops at Université du Québec à Rimouski, Université Laval and ArctiConnexion.



Nunataryuk – Permafrost thaw and the changing Arctic coast: the MacKenzie delta and coastal waters sampling

The Nunataryuk project, led by Dr. Marcel Babin, is another relevant project under this theme. Thawing of permafrost in the Mackenzie Delta region, coupled with an increase in river discharge, prompts the release of particulate and dissolved organic matter from the largest Arctic drainage basin in North America into the Arctic Ocean. The overarching aim of the Nunataryuk project is to characterize and assess the fate of organic matter released into coastal waters by permafrost thaw in the past and into the future. The project demonstrates significant merit in research by addressing the pressing issue of permafrost thaw in the Mackenzie Delta region. The outcomes of this work will provide understanding of the impacts of thawing permafrost in addition to contributing to long-term impacts on the ecosystem, which directly affect local Inuit. The project provided excellent training and opportunities for HQP from an academic standpoint. The project actively engaged with the local communities, spending significant amounts of time in the region and establishing relationships. The Nunataryuk project demonstrated strong networking efforts at both national and international levels. Collaborations with government agencies, industry partners, and academic institutions enhanced the project's reach and facilitated knowledge exchange. Engagement with northern partners ensured that research findings were communicated effectively and incorporated into local decision-making processes. The project excels in knowledge exchange through various activities, including community workshops, field expeditions, and collaborative research.

Inuit Health, Education and Adaptation

Microplastics and Associated Chemicals: Transport to and within the Canadian Arctic (MPACs)

Dr. Liisa Jantunen led a project on microplastics which are found in every environment throughout the globe, including the Arctic. Evidence is mounting that exposure to microplastics, and associated chemicals, are harmful to biota including humans. This project aims to characterize and benchmark levels of microplastics, tracking all associated chemicals in the Canadian Arctic. Characterizations that specifically determine the sources of microplastics' are integral for developing effective mitigation strategies, while benchmarking levels are needed to gauge the effectiveness of these strategies. This project developed methods and conducted analyses of microplastics and associated chemicals in a plethora of substrates including snow, atmosphere, sediment, freshwater, moss, road dust, benthic sediments, zooplankton, and in the marine environment. The data harvested contributed to data for a long-term monitoring program. The extensive sampling program and the data contribute substantially to a better understanding of the impacts of microplastics on the Arctic environment and exposure to biota and northerners. These important findings contribute to international assessments on contaminants in the Arctic (AMAP, etc.). The team connected with multiple Indigenous, northern institutes, and committees during the project. They conducted multiple outreach activities with students, community presentations, and hired a northern student to participate in a cruise. They also engaged with the Governments of Nunavut and the Northwest Territories. There is a significant network of partners and engagements from a variety of sectors including academia, non-governmental organizations (NGOs), the federal government, post-secondary institutions, and other partners, in addition to direct engagements with northerners and Indigenous peoples. The team has been working to further communications and community engagement, including how to better include Indigenous Knowledge in their work. Six HQP were trained as part of the project.

Knowledge Transfer

Dehcho Collaborative on Permafrost

Under the Academic program, the project, led by Dr. William Quinton, focused on the need to develop and mobilize knowledge on permafrost thaw in the Dehcho and elsewhere in the Subarctic. Customized predictive tools and permafrost-thaw adaptation strategies are being developed, along with interactive training to inform decision makers. In direct response to these needs, the Scotty Creek Research Station and the Dehcho First Nations co-proposed the Dehcho Collaborative on Permafrost, a Dehcho-wide initiative whose overall objective is to generate a fusion of leading-edge scientific and Indigenous knowledge and strategies on changing permafrost. Close consultations with Indigenous communities identified the need for sustained, two-way knowledge exchange for improved permafrost thaw monitoring, adaptation, process understanding, and predicting. Built over decades of hydrology research in the Northwest Territories, this impressive research initiative has evolved into a multidisciplinary collaboration amongst universities, government agencies, and local Indigenous organizations. It lives on as a highquality community/university partnership. This research program has a notable collaboration with the Dehcho First Nation, ŁıídĺųKų́ę́ First Nation, the Jean Marie River First Nation, and Sambaa K'e. The project has been effective in fostering university-northerner collaborations and in passing the Scotty Creek Research station into community hands. They have effectively balanced sciencebased research objectives with community input and expertise. The consultations with northern communities have significantly enhanced the research and contributed to the development of ŁıídluKyé First Nation guardian skill sets. The work has supported the ŁıídlijKyé First Nation in advancing self-determination in research and ensuring all data is accessible to the Indigenous communities. Most remarkably, this project is sustainable, with multiple sources of funding. 34 HQP are listed in the project, which include many northerners. The 19 peer-review publications are evidence that HQP were very active. The ability of the program to persevere despite a wildfire burning down a key research site is clear evidence of a trusted, solid foundation.

@ArcticNet/Liam Jasperse

Northern Policy and Development

Understanding the effects of climate change and industrial development on contaminant processes and exposure in the Canadian Arctic marine ecosystem (ACCCPE)

Dr. Gary Stern, from the Academic Program, led a project to better understand how contaminant levels are changing in the Arctic. This project collected air, water, biological and sediment samples for persistent organic pollutants (POPs). An additional innovative component consisted of identifying new and emerging organic pollutants and anthropogenic particles, including microplastics and associated chemicals. This additional component aimed at determining if, and where, there may be shortcomings in the present understanding of chemical environmental fates, and what differences exist between environmental compartments (water, sediment and biota) and regions of the Canadian Arctic. This project provides valuable scientific information needed to support governments and communities in their efforts to take remedial and preventive actions related to multiple stressors: contaminants entering the environment, the adverse effects of climate change, and the industrial development in the Arctic marine system. The project leveraged the existence of decades old, contaminated sites resulting from an oil spill to advance the knowledge on natural remediation in the Arctic. This is especially relevant in the context of a changing Arctic, with growing human activity and a changing climate. The project also explored other aspects of water pollution (microplastics, mercury, etc.), and used a multidisciplinary approach (remote sensing, water sampling, modeling, etc.). The project involved northern communities for fieldwork and trained two Inuit HQP. Networking included northern partnerships, such as the Foxe Basin Kivalliq North Sapujiyiit Society, involvement with federal government departments, such as the Fisheries and Oceans Canada Multi-Partner Oil Spill Research Initiative, and collaborative networks co-developed by academia and Indigenous research teams such as The Freshwater-Marine Oil Spill Ecology Monitoring and Research Network. This project is highly relevant to the Northern Policy and Development and Marine Systems themes. Ten HQP are listed in the report, including two Inuit HQP. Six journal articles were published in 2023.



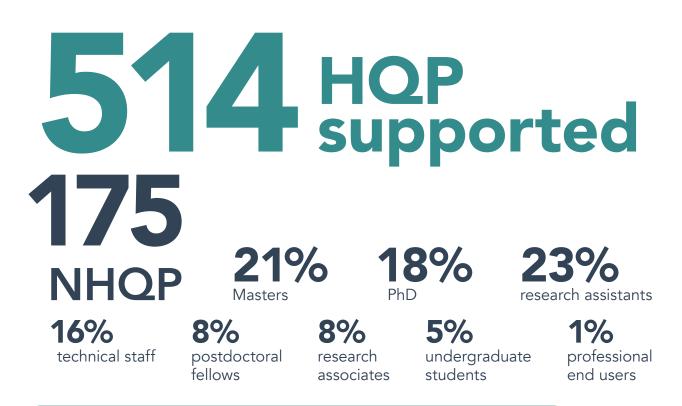
Northen Research Leaders Program (NRLP)

Nunavut Arctic College (NAC), in partnership with Memorial University, led a series of interrelated research projects that investigated the relationship between the institutional space of NAC and Inuit Qaujimajatugangit (Inuit traditional knowledge, or IQ). Specifically, they completed a suite of projects that analyzed archival collections, oral history projects, and existing published research in terms of research trends, needs, ethics, and outlooks in Nunavut according to Inuit and Northern standards and epistemologies. NAC published The Nunavut Arctic College and the mobilization of Inuit Qaujimajatuqanqit in Nunavut research: A systematic review of research literature (1996-2022). The 230-page report analyzes every accessible research text based in Nunavut published between 1996 and 2022. The report provides insights on the role of NAC and Nunavut Research Institute in research, and how IQ is being used in research. The all-Inuit research team created a dataset of all accessible publications and many other resources specifically geared towards Inuit researchers. The report, dataset, and resources are here. NRLP funding also supported the digitization of archival audio holdings from the Canadian Museum of History and other sources that house large collections of historical Inuktut language oral histories, music, and traditional knowledge from across the eastern Arctic. These were previously unknown and/or inaccessible to NAC and most Nunavummiut. Through this project, these holdings are now available within the territory and will support language research and learning development opportunities both within and outside of NAC programs.



Training the Next Generation of Arctic Researchers

Trainees and research staff, such as undergraduate and graduate students, postdoctoral fellows, research associates, research assistants, and technicians, are critical to the success of ArcticNet's research programs. As the future generation of researchers and Arctic leaders, it is imperative to support the professional development of Highly Qualified Personnel (HQP) and Northern HQP (NHQP) by providing valuable training resources to enrich their skill sets. Beyond essential research skills (sampling, data analysis, report writing, etc.), HQP and NHQP involved in ArcticNet-funded projects demonstrate an impressive array of skills in communications (explaining complex research on podcasts for the public, creating research posters and infographics, conference presentations); administration (obtaining permits, applying for scholarships, and funding); fieldwork (scuba diving, snowmobiling, shooting, sampling); and cultural awareness (seeking education on ethical engagement with Indigenous communities, participation in Equity, Diversity and Inclusion (EDI) surveys).



In terms of sociodemographic characteristics, **52%** of HQP identify as female, **47%** as male, **1%** as non-binary, and **27%** identify as Indigenous.

Training & Capacity Building

As the Canadian funder of northern research, ArcticNet provides financial support for specialized training through our various training funds. The ArcticNet training fund supports the training of ArcticNet graduate students and northern students in national and international field schools, courses, or institutes. In 2023/24, eight students were funded through the ArcticNet training fund to support their participation at various training opportunities such as Imaging FlowCytoBot (IFCB) training, APECS and Arctic Passion Sharing Circle, and the Elmer/Ice beginner's course. The ethical research training fund is designated for ArcticNet researchers who work with Indigenous partners and travel North for their fieldwork to take training sessions on Indigenous awareness and ethical research, including online courses such as the <u>"Fundamentals of OCAP"</u>. Lastly, the fieldwork safety fund supported researchers and students to participate in safety courses pertaining to fieldwork carried out as a part of their ArcticNet funded projects, such as the <u>Crevasse Rescue Course</u> and the <u>Wilderness Emergency</u> Medical Technician course. Collectively, these training funds have contributed to the development of critical skills for studying, conducting safe and ethical fieldwork, modelling, managing, and stewarding a changing Canadian Arctic.









ArcticNet Student Association (ASA)

The ASA brings together undergraduate, M.Sc. and Ph.D. students from across Canada studying the Arctic. With support from and in close collaboration with ArcticNet, the ASA is run by students for students. This gives the executives of the ASA the opportunity to build leadership capacity and provide training opportunities for the next generation of Arctic researchers.

The 2023 Early Career Northern Researchers (ECNR) annual meeting was held in Iqaluit, Nunavut, as part of the opening activities of the Annual Scientific Meeting 2023 (ASM2023). The conference brought together students and professionals, and provided valuable insight on Arctic research. The event was organized by the ASA, with help from the ArcticNet secretariat, a local planning committee, and other local businesses. The attendees included undergraduate students, graduate students, postdoctoral fellows, as well as the entirety of the local Environmental Technology Program at NAC and students from the local Inuksuk High School.

The event included a panel on Inuit Experiences in Academia, featuring four local ECNRs holding a conversation around the experiences of Inuit who have taken various pathways in academia and the opportunities to support Inuit interested in pursuing post-secondary education. Most of the day was dedicated to over 15 workshops and training sessions for ECNRs, hosted by local organizations, including SmartICE, Nunavut Research Institute, Arctic Science Journal, SIKU, and more. Topics included research partnerships, narwhal drone image analysis, drum dancing, singing, equitable research processes, technology trainings, preparing local country food, sealskin preparation, and more.

During the Community Pitch contest, attendees were invited to present a 2-minute pitch answering the question How can community-based research support Northern well-being? The ECNR day also featured a Knowledge Expo, put together by Nunavut Tunngavik Inc., a hands-on science fair event with 15 booths, including all ways of knowing, from science excellence to Indigenous Knowledge. This was an immense success in allowing ECNRs to view different methods of conducting northern research, engaging, and understanding results.

Overall, the 2023 ECNR Annual Meeting was a resounding success, providing valuable insights and networking opportunities to the attendees. The schedule was impressive, with engaging, informative, and interactive workshops. The event was successful in bringing together the ECNRs and promoting safe and respectful conduct of northern research.

ASA
ArcticNet Student Association

Mobilizing, Transferring and Exchanging Knowledge

Knowledge must move beyond the researcher's desk to realize impact. Publications, workshops, training sessions and conferences all contribute to ArcticNet's knowledge exchange and the translation of our growing understanding of the Arctic.

An excerpt of Knowledge Mobilization Initiatives that took place in 2023-24:

- 1. <u>Skills for Northern Research Impact (SNRI) Webinar Training Series:</u> The virtual training series is open to ECRs, students, HQP, and partners of the greater network and aimed to provide training on knowledge mobilization and best practices for ethical research in the North. In the fiscal year of 2023/24, the following webinars were offered:
 - a. "Principles and Best Practices of Research Data Management", May 5th, 2023
 - b. "Tools for a Safer and More Inclusive Work Environment: HearU", May 19th, 2023
 - c. "ArcticNet Media and Communications Training", June 9th, 2023
 - **d.** "Introduction to Engagement and Knowledge Mobilization in Northern Research: A Four-Part Series", in collaboration with the Weston Family Foundation:
 - i. "Navigating Knowledge Mobilization in Arctic Research: Unveiling Strategies for Effective Impact", September 7th, 2023
 - ii. "Indigenous Data Sovereignty in Principle and Practice", September 15th, 2023
 - iii. "Conservation Through Reconciliation: Perspectives on Co-Created Research and Community-Based Monitoring with First Nations", September 22nd, 2023
 - iv. "Exploring Circumpolar Inuit Protocols on Equitable and Ethical Engagement", September 26th, 2023
 - e. "Graphic Design Tools for Scientists", November 17th, 2023
 - f. "Unlocking Open Science: Embracing Open Access, Open Data, and Community-Engaged Research", March 8th, 2024

- 2. Arctic Minded, an ArcticNet podcast: The ArcticNet podcast, Arctic Minded, was developed with the strategic objective to share stories of ArcticNet's researchers, HQP, staff, leadership, and community partners to break down the barriers separating the general public and those involved in Arctic science. The podcast is recorded in plain-language and is accompanied by a transcript available to listeners to increase accessibility. With over 400 downloads in the 2023/24 fiscal year and five episodes published to date, it has proven to be popular with listeners and an effective method of science communication. Episodes published in the 2023/24 fiscal include:
 - a. "Arctic Youth and SciQ" with Ikaarvik
 - b. "A Journey to Respectful Research" with Danielle Nowosad
 - c. "20 Years of Research on the Amundsen (Part 1)" with Dr. Alexandre Forest
 - d. "20 Years of Research on the Amundsen (Part 2)" with Dr. Maxime Geoffroy
 - e. "A Deep Dive into Arctic Science" with Dr. Amanda Savoie
 - f. "Microbes: What Are They and What Can They Do?" with Dr. Srijak Bhatnagar
- 3. Nunavik Workshop on Arctic Science and Inuit Knowledge: The Nunavik Hunting, Fishing and Trapping Association (HFTA) is an important leader, partner, and knowledge user of research on a broad range of topics related to wildlife, country food, Inuit health, nutrition, climate change, and environmental contaminants. It is crucial that researchers (including those affiliated with governments and universities) consult and share findings with Nunavik HFTA leaders and community representatives throughout the lifespan of research projects. Leveraging existing partnerships, ongoing activities, and funds secured through other partners, the objective of this project was to organize and facilitate a novel 3-day workshop convening researchers, the Nunavik HFTA leaders, and community representatives to:
 - **a.** Strengthen relationships and contribute to capacity building in the North to address issues related to wildlife health, harvesting, food security, nutrition, environmental contaminants, Inuit health, and global changes while prioritizing Inuit Knowledge;
 - **b.** Raise awareness and share pertinent information relating to research that is underway or recently completed on these topics in Nunavik;
 - c. Support harvesting and food decisions among Nunavimmiut;
 - d. Identify community priorities and future directions for relevant research in the region.

The workshop was funded through the Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) Northern Travel Fund (NTF) and supported by various partners including ArcticNet and the *Centre d'études nordiques* (CEN). The workshop took place in Kuujjuarapik, Nunavik, February 20-23, 2024, at the CEN Research Station in Whapmagoostui-Kuujjuarapik.

Commitment to Equity, Diversity and Inclusion (EDI)

As part of its closing down as a NCE and wrapping up its past years, ArcticNet needed to understand challenges and opportunities in terms of EDI. To achieve this, in early 2023, ArcticNet launched an anonymous EDI survey, available to the public and members of the ArcticNet community. Anyone within the broader ArcticNet network (not limited to ArcticNet funded researchers, committees, staff, etc.) was invited to fill out the survey. The survey was conducted by Inclusive Kind Inc., an independent EDI consultant group, meaning ArcticNet will not have access to specific survey answers and will only view disaggregated data presented by Inclusive Kind. This survey will allow ArcticNet to track EDI progress against our Key Performance Indicators (KPIs), originally developed in 2021. This survey sought to understand diversity within the network (who comprises the network, from a demographic perspective), as well as equity and inclusion (eg., how do network members feel about various dimensions of EDI within the ArcticNet community?). Survey participants were also given the opportunity to answer two open-text questions, allowing us to gather qualitative insights to augment the rich quantitative data collected. This information will enable us to track our record on EDI commitments and strategy, as well as address any issues that may arise. The survey received over 230 responses from various members within the larger ArcticNet community and provided insights into updating our strategy.

The following provide some key statistics for the questions on diversity, as per the four protected groups in Canada:

- 54% of participants identify as a cisgender woman. 3% identify as non-binary, twospirit, or gender fluid.
- 3% of participants identify as having a visible disability. 18% identify as having an invisible disability.
- 13% of participants identify as Indigenous.
- 14% of participants identify as a member of a visible minority.

As for the questions on equity and inclusion, ArcticNet received a total EDI score of 69%, meaning that 69% of survey participants report a positive experience of inclusion within the ArcticNet community. ArcticNet will continue to move forward in its EDI journey, knowing this type of change is slow and steady to achieve, but necessary.

Inclusive Kind also led a detailed review of our KPIs to assess progress and ensure alignment with EDI goals. Further, the survey and report will identify specific areas of improvement, engage stakeholders, and deliver actionable recommendations for sustained progress.

Through its EDI initiatives and for the ASM2023, ArcticNet once again partnered with HearU (Inclusive Kind) and two local Inuit counsellors to offer a safe space for all attendees to anonymously report instances of harassment, discrimination, bullying, micro-aggression, or any other form of unfair treatment that may have been experienced or witnessed during the events. HearU is a reporting tool platform that provides a way to report these instances anonymously and allows us to gather data on incidents occurring at ArcticNet events to identify systemic trends, raise awareness of issues, and collect and analyze aggregated data. On-site were two Inuit counsellors, available for advice on and reporting of inappropriate behavior in both English and Inuktitut

54% cisgender
3% Non-binary,

Non-binary, Two-spirit, Gender fluid

3%
Visible disability

18% Invisible disability

13% Indigenous

14%
Member of a visible minority



From December 4-7, 2023, ArcticNet brought the northern research community together for the first time in the North for the 19th Annual Scientific Meeting (ASM2023) at the Aqsarniit Hotel and Conference Centre in Iqaluit, NU. The event was a record-breaking success as ArcticNet hosted over 450 members

ArcticNet was conference with Awa, Mayor of President of Q (QIA), Her Exc. Mary Simon, G The Honourab

of the Canadian and international Arctic research community for a week of discussion, networking and knowledge sharing, in-person as well as virtually.

ASM2023 convened the northern research community for more than 40 presentations, and four panel discussions, all of which were live-streamed. The recordings of the panel discussions are available here. The scientific programming demonstrated a commitment to research excellence, where researchers, throughout presentations, panel discussions and posters, shared their expertise on a range of environmental, health, and socio-economic Arctic issues.

ArcticNet was honoured to open the conference with remarks from Solomon Awa, Mayor of Iqaluit, Olayuk Akesuk, President of Qikiqtani Inuit Association (QIA), Her Excellency The Right Honourable Mary Simon, Governor General of Canada, The Honourable Daniel Qavvik, Minister of Environment, The Honourable Dan Vandal, Minister of Northern Affairs, Natan Obed, President of Inuit Tapiriit Kanatami (ITK), and Aluki Kotierk, President of Nunavut Tunngavik Inc. (NTI).

The ArcticNet Student Association (ASA) kicked off ASM2023 by hosting students and early career researchers during the Early Career Northern Researchers (ECNR) Annual Meeting. The 2023 edition of the ECNR Meeting featured a panel on Inuit Experiences in Academia, over 15 workshops and training sessions for ECNRs, a community pitch contest, networking events, and a knowledge expo featuring over 15 booths hosted by researchers and local organizations.

Throughout the ASM, three panel discussions touched on a variety of subjects: A Healthy Arctic; A Self-Determined Arctic; and An Interconnected Arctic. These panels featured experts from a multitude of different sectors.

The ASM featured two cultural nights with performances from Nunavut artists, and storytelling from local Elders. ASM2023 ended with the awards gala with musical performances from the talented throat-singing group Paunnakuluit, and the local band Kamaalukutaat. A special tribute was provided by Melissa Lafrenière for the passing of ArcticNet researcher and friend, Maya Bhatia.

The ASM was supported by a variety of sponsors, including many local to Iqaluit. ArcticNet thanks QIA, NTI, CIRNAC, Nunavut Wildlife Management Board, Weston Family Foundation, Qikiqtaaluk Corporation, Arctic Research Foundation, Amundsen Science, Sentinel North, Société du Plan Nord, Ocean Networks Canada, Arctic Science Journal, and Defence Research and Development Canada (DRDC).

The NTF, through generous funds from CIRNAC and ITK exceeded \$260K and supported the attendance of over 50 Indigenous persons and northerners. Partner funds, ArcticNet funds, and ArcticNet projects funded over 200 Northerners to attend the ASM, representing a record breaking 43% of all conference attendees. Northern participation is critical to the ASM, ensuring Northerners are an integral part of the conversation around current results emerging from Arctic research and the future of research in Canada. This was especially important this year, given the ASM was hosted in the North for the first time since the inception of the Network



Excerpts from ASM2023 in the Media

- 1. Comment promouvoir l'autodétermination des Inuit dans la recherche scientifique? with a reach of 5M in Ici Grand Nord.
- 2. Arctic research conference is held in the Arctic for 1st time with a reach of 5M in CBC news.



ArcticNet in the Media



ArcticNet continued to grow its social media presence and engagement, connecting with an audience of over 8,650 followers on Twitter.

In the 2023/24 fiscal year, ArcticNet was mentioned in 273 media articles and ArcticNet Network Investigators were mentioned in over 1478 media articles.



Media Highlights

143M 61M

Disappearing glaciers will give way to emerging, 'novel' ecosystems, research finds featuring ArcticNet researcher Dr. Nicolas Lecomte, posted on MSN with a reach of 143M.

Explained: How Arctic ice melt raises the risk of far-away wildfires featuring ArcticNet researcher Dr. Julienne Stroeve, posted on Hindustan Times with a reach of 61M.

49M

Melting Greenland Has Lost 1 Trillion Tons More Ice Than Thought featuring ArcticNet researcher Dr. Julienne Stroeve, posted on Yahoo! Finance with a reach of 49M.

46M

'Do Not Ever Divest of <u>Hvdrocarbons' – Larry Fink;</u> COP-28 in UAE Promises **Energy Reality says Friends** of Science Society featuring ArcticNet researcher Dr. Ian Clarke, posted on Yahoo! Finance with a reach of 46M.

33M

An "Extraordinary Situation" <u>Is Unfolding In Antarctica</u> Amid Record Heat featuring ArcticNet researcher Dr. Julienne Stroeve, posted on NDTV with a reach of 33M.

Publications

ArcticNet's projects comprise over 330 publications in the 2023/24 fiscal alone, 175 were peer-reviewed publications. Of these 175 publications, 112 (64%) were open-access.

21 publications (12%) were published in journals with an impact factor greater than 10, such as Nature, Science, and Proceedings of the National Academy of Sciences (PNAS).



330 publications

175 peer-reviewed 64% open-access

The top 10% of journals had impact factors equal to or greater than 10.8 (18 publications). The average impact factor was 5.8 from April 2023 to April 2024. 35 publications (20%) had an impact factor greater than the average.

Published in Nature, Science, and Proceedings of the National Academy of Sciences (PNAS)

Partnerships

ArcticNet has a geographic area of focus rather than a thematic one. This results in a broad and diverse research portfolio that requires a multidisciplinary and multisectoral approach with partners from academia, government, Indigenous organizations and communities, industry, non-profits, and international entities. To meet the needs of such a diverse group of stakeholders, the Network constantly engages with existing and relevant new partners to meet the needs of a changing Arctic. The examples below are just a few testaments to our expanding network of partners.

- 1. Annual Scientific Meeting 2023: The first ASM hosted in the North allowed the Network to broaden and strengthen its partnerships with multiple Inuit organizations local to Igaluit. The Network worked very closely with Nunavut Tunngavik Inc. (NTI) and Qikiqtani Inuit Association (QIA) to ensure the conference represented local Inuit and Northern culture. The ASM was supported by a variety of sponsors, including many local to Igaluit. ArcticNet thanks QIA, NTI, CIRNAC, Nunavut Wildlife Management Board, Weston Family Foundation, Qikiqtaaluk Corporation, Arctic Research Foundation, Amundsen Science, Sentinel North, Société du Plan Nord, Ocean Networks Canada, Arctic Science Journal, and Defense and Research Development Canada. The Northern Travel Fund, through generous funds from CIRNAC and ITK, exceeded \$260K and supported the attendance of over 50 Indigenous persons and northerners. Partner funds, ArcticNet funds, and ArcticNet projects funded over 200 Northerners to attend the ASM, representing a record breaking 43% of all conference attendees.
- 2. Council of Canadian Academies (CCA) report: In late 2023, the CCA launched the Northern Research Leadership and Equity report led by the expert panel on The Future of Arctic and Northern Research in Canada. ArcticNet led the commissioning of this assessment over two years, in collaboration with over 40 partners, ranging from academic institutions, to Indigenous governments, to research organizations. Partners from across the country came together to fund the assessment with a shared interest in addressing and understanding the many challenges and complications in funding research, conducting respectful and reciprocal research in the Canadian North, and where we can go from here as a country. ArcticNet notes not only the success of the report, but also the success in convening a resounding number of partners from different sectors to address the future of Arctic research in Canada.

- 3. Joint Funding Initiative with SAGES: ArcticNet collaborated with the Scottish Alliance for Geoscience, Environment and Society (SAGES) to launch a small co-funded, collaborative research scheme open to our members. The International Collaboration Scheme is designed to offer kick-start funding to foster collaborations between SAGES and ArcticNet colleagues, with the hope that these will serve as proof-of-concept work for longer, in-depth collaborations, publications, and follow-up applications to larger funding schemes. For each collaborative funded application, ArcticNet and SAGES contributed towards research expenses (intended as a contribution towards e.g. lab analyses, fieldwork etc.), potentially open to all career stages including PhD students. A panel of people from both institutions assessed the proposals.
- 4. Letter of Agreement with Nordic Energy Research: The Network has signed a Letter of Agreement with Nordic Energy Research (NER), a platform for cooperative energy research and policy development under the auspices of the Nordic Council of Ministers, to host and participate in events that will add Canadian perspectives to strengthen collaboration and knowledge sharing on energy research among Nordic actors. A part of their work concerns the facilitation of networks, providing platforms and opportunities for experts and stakeholders within different fields of the Nordic energy sector to collaborate, share knowledge, and discuss innovative solutions that can contribute to the sustainable development of the Nordic region.

- 5. Arctic Discovery and Access Partnership: In 2023, the Network decided to discontinue use and development of the ArcticKT Portal. Instead, ArcticNet is investing to support the Arctic Discovery & Access (ADA) platform created by the Arctic Institute of North America at the University of Calgary. ADA now hosts ArcticNet's publications database, featuring over 9000 ArcticNet publications with bibliometric analyses. The partnership with ADA allows ArcticNet publications to be properly hosted and organized within one platform.
- 6. First Nations Groups: ArcticNet has begun to work on partnerships with various First Nations governments, including the Dene Nation, Centre for Yukon First Nations and the Dehcho First Nations, to set up a research program to directly fund First Nations researchers conducting work in the Canadian North.

Strategic Science Fund

In December 2023, the Government of Canada announced that ArcticNet will be funded for the next five years through the Strategic Science Fund (SSF), jointly administered by Innovation, Science and Economic Development (ISED) Canada and Health Canada. The successful proposal was co-developed by ArcticNet, Inuit Tapiriit Kanatami, Inuit Circumpolar Council, and Polar Knowledge Canada with support from over 70 organizations across the country and internationally in an effort to carry forward the internationally recognized and respected ArcticNet.

Through the SSF, the new ArcticNet will receive network funding to continue the collective work of studying the impacts of rapid climate, environmental and socioeconomic change in Inuit Nunangat and the broader Canadian North. With this funding, ArcticNet will deploy its broad domestic and international network and partnerships to develop and disseminate knowledge needed to formulate adaptation strategies and national policies to help Canadians face the impacts and opportunities of climate and socio-economic change, and threats to Arctic sovereignty.

Representing a new era in scientific collaboration, ArcticNet co-created a new vision that is focused on bridging and leveraging diverse knowledge to better understand and prepare for a changing Arctic. The new ArcticNet will also have a transformed governance framework to better reflect Inuit governance and priorities as outlined in the National Inuit Strategy on Research.

Through this SSF investment, ArcticNet will continue to leverage discovery and diversity, convening and connecting, unleashing capacity, and mobilizing knowledge, through existing and new projects addressing national, Inuit and Indigenous priorities. ArcticNet will be able to maintain partnered science projects for both academic-led and northernled programs (North by North) which includes the program led by post-secondary insitutions (Northern Reserach Leaders Program (NRLP)) and the Inuit-led Research Program, (Inuit Inuit Qaujisarnirmut Pilirijjutit (IQP)). IQP is the world's first Inuit-led, directed, and governed research program. ArcticNet will continue collaborating with its vast network of partners dedicated to the same causes, including 60 Indigenous organizations, 8+ federal agencies, 4 provincial agencies, 25+ collaborating countries, 48 communities across Canada, and 40+ universities, colleges, and post-secondary institutions.

ArcticNet's SSF proposal was endorsed and supported by diverse partners and stakeholders with a vested interest in Arctic research along with regional and territorial organizations located in Inuit Nunangat, and research and Indigenous organizations across all of Canada.

ArcticNet Directors



Dr. Jackie Dawson Scientific Director (2018-2024)

Dr. Jackie Dawson (Ph.D.) is an Associate Professor at the University of Ottawa in the Department of Geography, Environment, and Geomatics and holds the Canada Research Chair in Environment, Society, and Policy. She is also a Scientific Director of the Network of Centres of Excellence, ArcticNet. Dr. Dawson is an Applied Scientist working on the human and policy dimensions of environmental change in ocean and coastal regions and is considered an expert in Arctic shipping, Arctic tourism, and Arctic oceans governance. She is an elected fellow of the prestigious College of the Royal Society of Canada, the Global Young Academy and the Royal Canadian Geographic Society. She has served as an invited expert on two Canadian Council of Academies (CCA) Expert Panels and now serves on the CCA Scientific Advisory Committee. Dr. Dawson is also currently serving on the United Nations Decade of Oceans Science (2021-2030) Arctic Task Force. Dr. Dawson has published over 75 peer-reviewed journal articles, 50 technical reports, and 20 book chapters. She also acted as an invited lead author on Arctic Council's report "Adaptation Actions for a Changing Arctic" and continues to contribute to several Arctic Council working groups. Dr. Dawson has secured over \$47M in research funding and has given over 200 public presentations including more than 60 invited national and international speeches. Dr. Dawson has trained over 100 HQP including 39 postdoctoral fellows, graduate, and undergraduate students, and 62 Inuit and Northern research assistants.

Dr. Philippe Archambault Co-Scientific Director (2018 – ongoing)

Dr. Philippe Archambault (Ph.D.) is a Professor in the Department of Biology at Université Laval, in Québec City. He is also a Scientific Director of the Canadian Network of Centres of Excellence, ArcticNet. He is a researcher who strives to link fundamental biodiversity questions and theoretical research on global change and its effects on ecosystems functioning to applied science and policymaking. His work has been used to develop Marine Protected Areas in Canada and has been incorporated into United Nations high-level environmental management decision-making. His well-known reputation in Research Network leadership is based on his headship of different national and international initiatives such as the multisectoral Network of Innovation called "Notre Golfe", winner of the "Prix Étoile" from Québec-Ocean, or as chairman of the 4th World Conference of Marine Biodiversity, winner of the "Prix du Club des Ambassadeurs du Palais de congrès de Montréal et des Fonds de recherche du Québec". He is on the International Science Advisory Board of Ocean Networks Canada and a benthic expert on Circumpolar Marine Biodiversity program which is a cornerstone program of the Arctic Council's Conservation of Arctic Flora and Fauna Working Group. Additionally, he co-leads a theme section on the effect of multistressors on marine biodiversity in the Natural Science and Engineering Research Council (NSERC of Canada, Canadian Healthy Oceans Network. The result of his research on connectivity of marine biodiversity at the planetary level was selected as one of the 10 discoveries of 2019 by the Québec Science magazine. He is strongly engaged in training the next generation of marine scientists.





Dr. Christine Barnard Executive Director (2019-ongoing)

Dr. Christine Barnard (Ph.D.) is a bilingual northern research and infrastructure executive with more than eighteen years of leadership experience in Arctic and northern research networks. As Executive Director at ArcticNet, the world's largest national Arctic research network, Dr. Barnard leads a team to support, promote and develop multidisciplinary and cross-cultural Arctic research. She has steered ArcticNet into a new phase of its mandate, focused on advancing innovative science, empowering northern communities and strengthening national and international partnerships that bring Canada's Arctic expertise to the world. She believes in participatory leadership, thinking strategically and acting purposefully. Dr. Barnard brings a wealth of senior leadership experience managing the research and infrastructure program at the Centre d'études nordiques (CEN) at Université Laval, a collective of over 300 multidisciplinary scientists studying northern terrestrial and freshwater systems. She co-developed research stations with Inuit communities and managed millions of dollars in infrastructures funds. Since 2006, Dr. Barnard has served and currently serves

on numerous national and international boards and advisory committees, such as the international Sustaining Arctic Observing Networks (SAON) Board and Advisory Panel of the Arctic Council, the Canadian Consortium for Arctic Data and Interoperability (CCADI), the Board of Directors for the Canadian Network of Northern Research Operators (CNNRO), the Hudson Bay Consortium Steering Committee, the Infrastructure Working Group for the Institut nordique du Québec (INQ). She has also represented Université Laval and CEN at the Association of Canadian Universities for Northern Studies (ACUNS), the International Network for Terrestrial Research and Monitoring in the Arctic (INTERACT) and the University of the Arctic. Over the course of her professional career, Dr. Barnard has gained a reputation for sound and rigourous program management, strategic thinking in political arenas, collaborative partnership development, and science management expertise. She is passionate about northern communities, and the role research can play in supporting the sustainable development of a healthy North. Dr. Barnard is the mother of three and holds an M.Sc. and a Ph.D. in Environmental Sciences.

ArcticNet Board of Directors

The **Board of Directors** is responsible for the overall governance of the network and acts in accordance with the By-Laws of ArcticNet Inc. A majority of Board members are senior officials of organizations other than Network Member Institutions, coming from Inuit organizations, government, industry, non-governmental organizations, and not-for-profit organizations. Subcommittees of the Board of Directors include the Executive Committee, the Finance and Audit Committee, and the Governance and Nomination Committee.

Voting Members

- Cedar Bradley-Swan: Chief Executive Officer, Adventure Canada
- Dr. Jean Holloway: Postdoctoral Fellow, University of Ottawa
- Dr. Digvir Jayas: Vice-President (Research and International), University of Manitoba
- Dr. Brendan Kelly: Executive Director, Study of Environmental Arctic Change (SEARCH) Program
- Dr. Donna Kirkwood: Chair of the ArcticNet Board of Directors
- Lisa Koperqualuk: President, Inuit Circumpolar Council Canada
- Megan Leslie: President and CEO, World Wildlife Fund Canada
- Guy Levesque: Associate Vice-President (Research Support and Infrastructure), University of Ottawa
- Dr. Olivier Moroni: Assistant to the Vice Rector and Head of Research Infrastructures and Special Projects, Université Laval
- Natan Obed: Co-Chair of the ArcticNet Board of Directors and President, Inuit Tapiriit Kanatami
- Dr. Milla Rautio: Professor, Université du Québec à Chicoutimi

Non-Voting Members

- Dr. Philippe Archambault: Co-Scientific Director, ArcticNet/Professor, Université Laval
- Dr. Jackie Dawson: Scientific Director, ArcticNet/Professor, University of Ottawa
- Dr. Christine Barnard: Executive Director, ArcticNet
- Sara Esam: Senior Program Manager, Networks of Centres of Excellence

ArcticNet Secretariat

Acting under the direction of the Executive Director, ArcticNet's Administrative Centre is located on the campus of Université Laval in Québec City, Québec, Canada and is responsible for the daily operations of ArcticNet. Staff also operate out of the University of Ottawa, Ottawa, Canada. The Centre comprises the administrative offices of the network and includes its staff and equipment.

- Dr. Jackie Dawson: Scientific Director
- Dr. Philippe Archambault: Co-Scientific Director
- Dr. Christine Barnard: Executive Director
- Dr. Martin Tremblay: Network Manager
- Érica Leroux: Finance and Administration Manager
- Guillaume Proulx: Science Program Officer
- Aisha Sada: Program Officer, Northern-Led Research
- Erica Baird: Communications and Events Officer
- Dr. Martine Lizotte, replaced by Julia Macpherson: Training and Knowledge Mobilization Coordinator
- Christine Demers: Executive Assistant
- Kayleigh Osborne: Communications Assistant



ArcticNet Committees

The Research Management Committee (RMC) manages the Core Research Program, High Impact Publications Program, advising on the ASM scientific program, and ensures ongoing assessment of all projects to provide recommendations to the BOD regarding research priorities and budget allocations.

The Inuit Research Management Committee (IRMC) provides guidance, recommendations and direction to the ArcticNet Board of Directors related to Inuit research needs and priorities, policy development, and research activities. The IRMC leads all stages of ArcticNet's North-by-North (NxN) program development and implementation with specific responsibility for the Inuit Qaujisarnirmut Pilirijjutit. Voting members of this committee are representatives from the Inuvialuit Regional Corporation (IRC), Makivik Corporation, Kativik Regional Government (KRG), Nunavut Tunngavik Inc. (NTI), and Nunatsiavut Government. Nonvoting observers include the Inuit Circumpolar Council Canada (ICC), Inuit Tapiriit Kanatami (ITK), ArcticNet directors and North-by-North Program staff.

The **Inuit Research Advisors** help facilitate research in each of the four Inuit Land Claim regions of the Canadian Arctic.

The Territorial Advisory Committee (TAC) provides guidance and recommendations related to needs and priorities of Northern post-secondary institutions and the territories with regards to strategic planning, research needs/gaps, input of traditional knowledge, community involvement, training, and education. The members are actively involved in the North-by-North Program, specifically the Northern Research Leaders Program.

The ArcticNet Student Association works to broaden the ArcticNet student experience by promoting student learning, research and networking opportunities between students, academics, governmental partners, and northerners.



Research Management Committee

Members

- Jean Allen: Senior Research Advisor, Nunavut Tunngavik Inc.
- Andrew Applejohn: Territorial Representative, Government of the Northwest Territories
- Dr. Philippe Archambault: Co-Scientific Director, ArcticNet
- Nicole Couture: Manager/Researcher, Geosciences & CC, Natural Resources Canada/Government of Canada
- Dr. Dorthe Dahl-Jensen: Professor, University of Manitoba
- Dr. Jackie Dawson: Scientific Director, ArcticNet
- Dr. Chris Derksen: Research Scientist, Environment and Climate Change Canada
- Alexis Dorais: Manager of our Ice Services group, Fednav Limited
- Rowenna Gryba: Senior Policy Advisor, Inuit Circumpolar Council (ICC) Canada
- Véronique Gilbert: Assistant Director, Lands and Environment, Kativik Regional Government
- Dr. Sherilee Harper: Researcher, University of Alberta

- Helen Joseph: Chair of RMC, HCJ Consulting
- Sarah Kalhok Bourque: Chair Northern Contaminants Program, Indigenous and Northern Affairs/Government of Canada
- Dr. Susan Kutz: Professor, University of Calgary
- Dr. Zou Zou Kuzyk: Associate Professor, University of Manitoba
- Rodd Laing: Director of Environment, Nunatsiavut Government
- Eric Loring: Senior Policy Advisor, Inuit Tapiriit Kanatami
- Dr. Lisa Loseto: Research Scientist, Fisheries and Oceans Canada
- Dr. Guillaume Nielsen: Industrial Research Chair, Yukon University
- Jenn Parrott: Director, Innovation Science and Climate Change, Inuvialuit Regional Corporation/Inuvialuit Settlement Region
- Jérôme Pelletier: Nunavik Research Centre, Makivvik
- Dr. Kevin Turner: Assistant Professor, Brock University
- Carol-Anne Villeneuve: ASA President/ Student, University of Montreal

Observers

- Dr. Christine Barnard: Executive Director, ArcticNet
- Sara Esam: Senior Program Manager, Networks of Centres of Excellence
- Guillaume Proulx: Science Program Officer, ArcticNet
- Martin Tremblay: Network Manager, ArcticNet

Inuit Research Management Committee

Members

- Jean Allen: Senior Research Advisor, Nunavut Tunngavik Inc.
- Brenda Anderson: Inuit Research Advisor (IRA), Nunavut Tunngavik Inc.
- Rodd Laing: Director of Environment, Nunatsiavut Government
- Monica Nashak: Inuit Research Advisor, Kativik Regional Government
- Carla Pamak: Chair, Inuit Research Advisor, Nunatsiavut Government
- Jenn Parrott: Director of Innovation, Science and Climate Change, Inuvialuit Regional Corporation (IRC)
- Jérôme Pelletier: Nunavik Research Centre, Makivvik

Observers

- Dr. Christine Barnard: Executive Director, ArcticNet
- Dr. Jackie Dawson: Scientific Director, ArcticNet
- Rowenna Gryba: Senior Policy Advisor, Inuit Circumpolar Council (ICC) Canada
- Eric Loring: Senior Policy Advisor, Inuit Tapiriit Kanatami
- Aisha Sada: Program Officer, Northern-Led Research, ArcticNet
- Martin Tremblay: Network Manager, ArcticNet

Inuit Research Advisors

- Eric Loring: Senior Policy Advisor, Inuit Tapiriit Kanatami (ITK)
- Monica Nashak: Inuit Research Advisor, Kativik Regional Government
- Carla Pamak: Inuit Research Advisor, Nunatsiavut Government

Territorial Advisory Committee

Members

- Andrew Applejohn: Senior Science Advisor, Government of the Northwest Territories
- Dr. Davon Callander: Manager Research and Scholarly Activities, Research Service Office, Yukon University
- Sabrina Kinsella: Acting Senior Science Advisor, Government of Yukon
- Joel McAlister: Director (Western Arctic Research Centre), Aurora College
- Jamal Shirley: Manager (Research Design and Policy Development), Nunavut Research Institute

Observers

- Dr. Christine Barnard: Executive Director, ArcticNet
- Dr. Jackie Dawson: Scientific Director, ArcticNet
- Aisha Sada: Program Officer, Northern-Led Research, ArcticNet
- Martin Tremblay: Network Manager, ArcticNet

ArcticNet Student Association

- Carol-Anne Villeneuve: President, University of Montreal
- Ashley Cameron: Vice President, Memorial University of Newfoundland
- Fowzia Ahmed: Secretary, University of Manitoba
- Caila Kucheravy: English Communications Officer, University of Manitoba
- Khashiff Miranda: French Communications Officer, Université Laval
- Alissa Sallans: Network Liaison Officer, University of Ottawa
- Camille Lavoie: Education and Outreach Officer, Université Laval
- Galina Jonat: Executive at Large, Carleton University
- Josh Komangapik: Northern Communications Officer, Royal Roads University
- Aidan Oliver: Event Coordinator and Network Liaison Officer, Carleton University

Full list of projects

Academic Research Program

Marine Systems

Camera community-based Arctic marine mammal studies (CCAMMS)

Marianne Marcoux, University of Manitoba

An ecosystem approach to quantifying behavioural and energetic impacts of anthropogenic disturbance to Arctic whales

Sarah Fortune, Dalhousie University

Rapidly changing ecosystem dynamics in the Arctic Ocean's Last Ice Area (RED-AO)

Audrey Limoges, University of New Brunswick Mathieu Ardyna, Université Laval

Weather and aajurait (lead) Monitoring for sea ice safety during the break-up season

Derek Mueller, Carleton University

Nutrient fluxes and living marine resources in the Inuit Nunangat

Jean-Éric Tremblay, Université Laval

Community-based research on winter water modifications in the coastal domain of Hudson Bay: Implications for freshwater-marine coupling, biological productivity and the carbon cycle

Zou Zou Kuzyk, University of Manitoba

GO-Ice: Glacier-Ocean-Iceberg Dynamics in a Changing Canadian Arctic

Luke Copland, University of Ottawa

Downscaling future oceanography projections in the Canadian Arctic and Subarctic

Eric Oliver, Dalhousie University

A Co-operative Observation Network to Address Community Research Priorities While Studying Marine Biogeochemistry

Brent Else, University of Calgary

Arctic Seafloor Mapping Data Processing and Dissemination

Jean-Carlos Montero-Serrano, Université du Québec à Rimouski Ian Church, University of New Brunswick

Fate of kelp forests in a rapidly changing Arctic (ArcticKelp)

Philippe Archambault, Université Laval Karen Filbee-Dexter, Université Laval, University of Western Australia

Improved Canadian Arctic Sea Ice Thickness Estimates

Julienne Stroeve, University of Manitoba

Marine primary production in a changing Arctic Ocean

Mathieu Ardyna, Université du Québec à Rimouski

Glacier ice volume, iceberg discharge and shipping risk in the Canadian Arctic and beyond

Luke Copland, University of Ottawa

Terrestrial Systems

Thermokarst Lakes: Dramatic increases in the removal of thermokarst lakes from the Canadian Arctic Landscape (TLRemoval)

Philip Marsh, Wilfrid Laurier University

Trying to make fetch happen: including tall shrubs in the atmospheric carbon budget of western Inuit Nunangat

Oliver Sonnentag, Université de Montréal

Understanding Arctic grizzly bear range expansion: a community-oriented approach

Douglas Clark, University of Saskatchewan

Snow changes Impacts on Kangiqsualujjuamiut (SCIK)

Alexandre Roy, Université du Québec à Trois-Rivières

Indigenous Knowledge of Berries in the Northwest Territories

Erin Cameron, Saint Mary's University

Developing seasonal multi-layer network models to evaluate cumulative impacts on Arctic ecosystems

Pierre Legagneux, Université Laval

Changing nutrients and food web health in northern lakes and rivers

Milla Rautio, Université du Québec à Chicoutimi Suzanne Tank, University of Alberta

Understanding and predicting future coastal climate-vegetation-cryosphere interactions in coastal Labrador

Robert Way, Queen's University

Ensuring water security in the High Arctic: understanding the impacts of changing permafrost and hydrology on water quality and aquatic ecosystems.

Melissa Lafrenière, Queen's University

Long-term hydrological dynamics of Canada's largest watershed: climate controls on water quantity and quality of the Mackenzie River Basin

Jennifer Galloway, University of Calgary

Nunataryuk – Permafrost thaw and the changing Arctic coast: the MacKenzie delta and coastal waters sampling

Marcel Babin, Université Laval

Northern Policy and Development

Future Arctic Mobilities: Informing transportation adaptation through climate observations and model projections of changing snow and ice Sapna Sharma, York University

ArcticFish: Fisheries resources in the changing Canadian Arctic Ocean

Maxime Geoffroy, Memorial University

Supporting sustainable development of community Greenland halibut fisheries in the Eastern Canadian Arctic

Nigel Hussey, University of Windsor

Modernizing Ecosystem Monitoring to Support Sustainable Development in the Eastern Canadian Arctic

Paul Smith, Carleton University Christina Semeniuk, University of Windsor

Understanding the effects of climate change and industrial development on contaminant processes and exposure in the Canadian Arctic marine ecosystem (ACCCPE)

Gary Stern, University of Manitoba

Mitigating Arctic Shipping Risks
Through Improved Prediction of
Conditions Leading to Besetments in
Pressured Ice in the Hudson Strait

Andrea Scott, University of Waterloo

Towards a marine management plan for Nunatsiavut: Coastal ecosystem research in support of priority concerns of Inuit

Tanya Brown, Simon Fraser University Max Liboiron, Memorial University Arctic Shipping and Transportation in a Rapidly Changing Arctic

Jackie Dawson, University of Ottawa

Knowledge Transfer

Dehcho Collaborative on Permafrost
William Quinton, Wilfrid Laurier University

KUUK-SHIPI-SHIPU Building bridges and local capacities to track change: community-based environmental monitoring in the George River watershed, Nunavik, Canada

Esther Lévesque, Université du Québec à Trois-Rivières

Understanding Inuit community uses and needs for weather, water, ice and climate information and services Gita Ljubicic, McMaster University

Using Co-Produced Knowledge to Understand and Manage Subsistence Marine Harvests in a Changing Climate

Lisa Loseto, University of Manitoba

Residual Risk and Adaptation
Database (RRAD): advancing climate
risk assessment approaches for IPCC
working group II in preparation
for the AR7

Jackie Dawson, University of Ottawa

Inuit Health, Education and Adaptation Supporting humans in a thawing landscape

Fabrice Calmels, Yukon University

Qanuilirpitaa 2017 – Understanding the determinants of health and wellbeing to support the implementation of population health promotion programmes, interventions, and services in Nunavik.

Pierre Ayotte, McGill University

Community-led housing in the Canadian North: mobilizing the development of supportive housing plans through knowledge sharing and engagement in the NWT and Nunavut

Julia Christensen, Memorial University

The Canadian Arctic One Health Network

Emily Jenkins, University of Saskatchewan Patrick Leighton, Université de Montréal

Moving from understanding to action on food security in the Canadian Arctic Matthew Little, University of Victoria Tiff-Annie Kenny, Université Laval

Effective teachers for successful students: An investigation of the preparation and resiliency of Northern educators
Ruth Kane, University of Ottawa
Kathy Snow, University
of Prince Edward Island

Microplastics and Associated Chemicals: Transport to and within the Canadian Arctic (MPACs) Liisa Jantunen, University of Toronto



North-by-North Program IQP

Inuit Health Education and Adaptation

Hilap Aulaaniit Qanuq Atayut (The World and its Connections)

Emily Angulilak

Assessment of the viability of goose harvesting as a response to food sovereignty in Arviat

Kukik Baker, Aqqiumavvik Society

Bringing back the beluga whale harvest in Aklavik

Michelle Gruben, Aklavik Hunters and Trappers Committee

Understanding Patterns of Social Interactions in the Inuvialuit Settlement Region to Support Prevention and Management of Infectious Diseases

Jenn Parrott, Inuvialuit Regional Corporation

Visualizing Rigolet Perspectives on the Muskrat Falls Project

Jessica Penney, Nunatsiavut Government

Marine Systems

Qikiqtani inshore fisheries surveys: studying coastal marine species in Kinngait, Sanikiluaq, Sanirajak and Igloolik

Brian Burke, Qikiqtaaluk Corporation

Acoustic monitoring for community empowerment at Clyde River, Nunavut

Shari Fox, Ittaq Heritage and Research Centre

Walrus Health and Population Dynamics in the Context of Climate Change

Mathilde Lapointe St-Pierre, Nunavik Research Centre

Marralik estuary beluga project

James May, Regional Nunavimmi Umajulirijii Katujiqatigininga (RNUK)

Kaujivalliajut nillikulunnik | Getting to know little geese

Meredith Purcell, Torngat Wildlife & Plants Co-Management Board

Water sampling to establish environmental baseline conditions for rivers supporting Arctic char near Naujaat

Johnny Tagornak, Arviq Hunters and Trappers Organization

Northern Policy and Development

Kitikmeot Inuit Qaujimajatuqangit framework for polar bear monitoring and management

Pamela Wong, Kitikmeot Regional Wildlife Board

Terrestrial Systems

Study of Arctic char catches and stock assessment and winter disappearance in Tasirjuarusik

Noah Eetook, Northern Village of Kangirsuk

Health of Arctic Char near Kugluktuk, Nunavut

Eric Hitkolok, Kugluktut Hunters and Trappers Organization

Inuit knowledge and molecular biology addressing industrial impacts in the Kivalliq

Vincent Lherault, Kivallig Wildlife Board

The effects of coastal storms on beaches in and around Cabin/Camping areas, Ausuittug, Nunavut

Terry Noah, Ausuittuq Adventures

Investigating Water Quality in Fish-bearing Lakes in Imaryuk

Shanay Williams, Inuvialuit Regional Corporation

Approach to Knowledge Sharing for Understanding Culturally Important Marine Areas in Inuit Nunangat

Justin Milton, Ikaarvik

Knowledge Transfer

Ujjiqsurniq Avatiptini (Ability to Observe our Surroundings):
A knowledge exchange between Mittimatalingmiut and Arviarmiut

Natasha Simonee, Aggiumavvik Society

Using Traditional and Local Knowledge to Better Understand the State of the Beaufort Sea

Tess Forbes, Inuvialuit Regional Corporation

Youth research training program with the Foxe Basin Kivalliq North Sapujiyiit/Guardians of the Sea Society

Sarah Newell, Foxe Basin Kivalliq North Sapujiyiit/Guardians of the Sea

Financial Report

STATEMENT OF OPERATIONS		
Revenues		
NCE Grant	6,299,617.00 \$	
Network partners Non nce	941,466.00 \$	
Others	508,848.00 \$	
Total revenues	7,749,931.00 \$	

BALANCE SHEET	
Assets	
Cash	3,008,929.00 \$
Accounts receivables	201,228.00 \$
Prepaid expenses	130,657.00 \$
Short-term investment	500,000.00 \$
Sub-total	3,840,814.00 \$
Capital assets	14,373.00 \$
Total	3,855,187.00 \$

Expenses	
Research projects	5,034,080.00 \$
Research and logistics support	390,865.00 \$
Knowledge mobilization	254,307.00 \$
Knowledge and training	885,384.00 \$
Communications	42,702.00 \$
Administrative Center	1,368,952.00 \$
Total expenses	7,976,290.00 \$
Excess of expenses over revenues	(226 359 \$)

Lialibities	
Accounts payable and accrue liabilities	293,516.00 \$
Deferred grants	1,622,530.00 \$
Total	1,916,046.00 \$
Net assets	
Invested in capital assets	14,373.00 \$
Unrestricted Assets	1,924,768.00 \$
Total	1,939,141.00 \$

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Working together in a changing Canadian Arctic

@ArcticNet/Vincent Denarie