ArcticNet

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ANNUAL REPORT

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RAPPORT ANNUEL

NCE RCE
Networks of Centres of Excellence of Canada | Réseaux de centres d'excellence du Canada

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ANNUAL REPORT
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RAPPORT ANNUEL

ArcticNet is hosted at Université Laval, Quebec City, Canada.

ArcticNet is funded by the Government of Canada through the Networks of Centres of Excellence program, a joint initiative of the Natural Sciences and Engineering Research Council, the Canadian Institutes of Health Research, the Social Sciences and Humanities Research Council and Industry Canada.

The Networks of Centres of Excellence are unique partnerships among universities, industry, government and not-for-profit organizations aimed at turning Canadian research and entrepreneurial talent into economic and social benefits for all Canadians. An integral part of the federal government's Innovation Strategy, these nation-wide, multidisciplinary and multisectorial research partnerships connect excellent research with industrial know-how and strategic investment.

The ArcticNet Network of Centres of Excellence was incorporated as a not-for-profit corporation under the name "ArcticNet Inc." in December 2003.

Canada

TOGETHER IN THE STUDY OF A CHANGING CANADIAN ARCTIC

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TRAVAILLER ENSEMBLE À L’ÉTUDE DE L’ARCTIQUE CANADIEN DE DEMAIN

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CORPORATE PROFILE

Understanding the transformation of the Arctic environment is one of the great challenges faced by Canadians, the Canadian government and the national and international scientific communities.

ArcticNet brings together scientists and other experts in the natural, human health and social sciences with their partners in Inuit organizations, northern communities, governments and the private sector to help Canadians prepare for the impacts and opportunities brought by climate change and modernization in the Arctic. Over 135 researchers and 1000 graduate students, postdoctoral fellows, research associates, technicians and other specialists from 29 Canadian universities and numerous federal, provincial and regional departments and agencies collaborate on 39 ArcticNet research projects with over 150 partner organizations from 17 countries.

150+
Partner organizations

17
Countries

138
Network Investigators

1000+
Graduate students, postdoctoral fellows, research associates, technicians and other specialists

29
Canadian universities

39
Research projects

2014-2015
Corporate Profile

OUR VISION

A future where knowledge exchange, monitoring, modelling and capacity building will have enabled scientists, Northerners and decision makers to jointly attenuate the negative impacts and maximize the positive outcomes of the transformation of the Canadian Arctic.

OUR MISSION

- Build synergy among Centres of Excellence in the natural, human health and social arctic sciences.
- Involve Northerners, government and the private sector in the steering of the Network and scientific process through bilateral exchange of knowledge, training and technology.
- Increase and update the observational basis needed to address the ecosystem-level questions raised by climate change and modernization in the Arctic.
- Provide academic researchers and their national and international collaborators with stable access to the coastal Canadian Arctic.
- Consolidate national and international collaborations in the study of the Canadian Arctic.
- Contribute to the training of the next generation of experts, from north and south, needed to study, model and ensure the stewardship of the changing Canadian Arctic.
- Translate our growing understanding of the changing Arctic into regional impact assessments, national policies and adaptation strategies.

MESSAGE FROM THE CHAIR OF THE BOARD, SCIENTIFIC DIRECTOR AND EXECUTIVE DIRECTOR

ArcticNet: Canada's Premier Northern Research Network

Since its inception in 2004, the ArcticNet Network of Centres of Excellence (NCE) has met the five criteria of the NCE program with increasing success: excellence of the research; training of the next generation of Arctic professionals; networking and partnerships; knowledge exchange and exploitation; and network management. The national and international reputation of the Network has grown steadily and our approach to knowledge mobilization through the Integrated Regional Impact Study framework has been emulated by the Arctic Council's Adaptation Actions for a Changing Arctic for the downscaling of its own circumpolar assessments of the ongoing transformation of the Arctic. Canada is now leading the modern exploration of the Arctic and the global quest to understand the fate of this last frontier and its communities under the triple pressure of climate change, development, and modernization.

As we enter the fourth and last phase of NCE funding, the Network is moving forward with an exciting new core program of 41 projects selected from no less than 86 submissions to its 2014 Call for Proposals. The Phase IV (2015-2018) program comprises 19 projects that build on Phase III research and 22 projects, or 54%, that are new to the Network. In addition, ArcticNet will welcome 69 new Network Investigators, equivalent to 56% of the total.

In addition to this core NCE-funded program, several other impressive initiatives and activities conducted during 2014-2015 attest to the vigour of the Network. Among these, are the successful *Amundsen* application to the Canada Foundation for Innovation Major Science Initiatives Special Competition; the organization of the international Arctic Change 2014 conference and the Arctic Inspiration Prize Awards Ceremony; the evaluation, with flying colours, of the Schools on Board program; the initiation of the ArcticNet Fieldwork Safety Training Fund; the signing of an agreement with France's Centre national de la recherche scientifique for the sharing of Arctic expertise; the Northern Housing Forum; the International Symposium on Northern Development; *Amundsen* and ArcticNet research making the front page of The Globe and Mail; the participation of ArcticNet management in numerous international Arctic forums; and the welcoming of France's President Hollande and Quebec's Premier Couillard by ArcticNet and the Unité Mixte Internationale Takuvik.

2014-2015
Message from the Chair of the Board,
Scientific Director and Executive Director

But many other initiatives are in the making, and this flurry of exciting activities that has augmented the core research program of ArcticNet in 2014-2015 is the harbinger of a plethora of outstanding new endeavours for Phase IV. We are anxiously looking forward to our next annual update to report on, among many items, the international Green Edge program in Baffin Bay; the University of Manitoba-led Churchill Marine Observatory; the ArcticNet contribution to Polar Knowledge Canada and the Canadian High Arctic Research Station; new research projects with The W. Garfield Weston Foundation; the Institut nordique du Québec; and, most importantly, the *Sentinel North* mega program recently funded by the Canada First Excellence Research Fund.

This avalanche of new enterprises and successes from all azimuths of the Network is a key metric demonstrating the remarkable leverage that ArcticNet continues to have on Canada's research effort and its international standing in the Arctic. ArcticNet continues to support world-class Arctic science and collaboration as Canada's premier northern research network.

Mr. Bernie Boucher,
Chair of the Board
of Directors

Dr. Martin Fortier,
Executive Director,
Vice-President and COO

Dr. Louis Fortier,
Scientific Director,
President and CEO

2014-2015
Message from the
Co-Chair of the Board

MESSAGE FROM THE CO-CHAIR OF THE BOARD

The interest in the Arctic continues to expand within Canada, the circumpolar world and globally. These interests come from industry looking for resources, governments and military securing sovereign claims, and conservation groups looking to ensure the preservation of the Arctic's natural environment. Most importantly, the goal is to sustain the natural and cultural landscape that provides the livelihoods and nutrition for those of us who live and call the Arctic home, Nunaat. These interests can be competing or can be pursued in collaboration - lending support to each other's visions, creating employment and education opportunities for Inuit, and building the knowledge base to make informed decision for the future. Knowledge acquisition, whether it is western science or traditional knowledge, has shown the benefits of collaboration and ArcticNet is an example of the benefits of collaboration. With this ever increasing interest, 2014-2015 yielded another busy and productive year in the Arctic over all. ArcticNet continued its world class research program looking back at lessons learned, as well as looking forward to continue to build momentum in the Arctic and consider the legacy ArcticNet will leave within the scientific, industrial, governmental and Inuit communities.

Inuit partners from all regions, as well as national representatives, were engaged in planning and directing the ArcticNet research program, undertaking the research and building the capacity to manage Arctic science and research through the Inuit Research Advisors, membership in the Research Management Committee and the Board of Directors. Inuit also directed significant energy into ensuring that research formed a central pillar of the ICC General Assembly hosted in Inuvik from July 24-28, 2014. Despite the conclusion of funding for the ArcticNet program through the Networks of Centres of Excellence (NCE) in 2018, these are excellent guidelines to assist ArcticNet and other national and international research programs in the research legacy and succession planning that has been an important topic of discussion at the Research Management Committee and the Board of Directors. Inuit have learned many lessons through partnerships with programs such as ArcticNet and the Northern Contaminants Program and are looking forward to applying this knowledge at the Canadian High Arctic Research Station and the policy position of Polar Knowledge Canada (POLAR) to advance the need for meaningful and increased roles and involvement in research and to address the many important issues facing Inuit communities in Canada and the circumpolar Arctic.

Continued work on the remaining IRIS reports (western Arctic and Hudson Bay) has involved substantial work by Inuvialuit in the Inuvialuit Settlement Region (ISR) and Inuit in the Kitikmeot region of Nunavut with the team. In Nunatsiavut, the IRIS 4 report complemented a suite of other resources and information for the Nunatsiavut Government to develop programs and projects to address important issues such as food security and housing. Inuit partners welcomed the establishment of a steering committee for IRIS 3 - Hudson Bay - and look forward to the resulting products as they have the potential to provide important interpretations of the knowledge gathered through ArcticNet projects in these areas.

The Arctic Change 2014 conference in Ottawa in December was a success in attracting over 1300 students, researchers, northerners, policy makers and Inuit from across the circumpolar Arctic and around the world. The ArcticNet administration invested considerably throughout the year to coordinate and host the Arctic Inspiration Prize Awards Ceremony during Arctic Change 2014, at which time it was announced that the prize would be continued in perpetuity.

Finally, ArcticNet and its partners are preparing and look forward to the NCE mid-term review in the fall of 2015. All partners in the Network have been discussing and strategizing the delivery of products and outcomes of the last five years. This is an opportune time to take stock of both achievements and areas requiring further development or advancement beyond the program, and a process in which Inuit look forward to participating and planning in parallel with all partners and ArcticNet.

Mr. Duane Smith, Co-Chair of the Board of Directors
and President of the Inuit Circumpolar Council (Canada)

RESEARCH AND MONITORING

2014-2015 ARCTICNET RESEARCH EFFORT

- CCGS *Amundsen*
- CCGS *Henry Larsen*
- Marine Observatory
- Terrestrial Observatory
- Research Location
- Inuit Community

Inuvialuit

Nunavut

Nunatsiavut

Nunavik

Arctic Ocean
Beaufort Sea
Baffin Bay
Labrador Sea
Hudson Bay
Arctic Circle

ALASKA
YUKON
NORTHWEST TERRITORIES
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
ONTARIO
QUÉBEC
GREENLAND
NEWFOUNDLAND & LABRADOR
PEI
NEW BRUNSWICK
NOVA SCOTIA

Tuktoyaktuk
Aklavik
Inuvik
Paulatuk
Sachs Harbour
Ulukhaktok
Kugluktuk
Cambridge Bay
Umingmaktuk
Bathurst Inlet
Taloyoak
Gjoa Haven
Igloolik
Kuugaarjuk
Hall Beach
Repulse Bay
Baker Lake
Rankin Inlet
Whale Cove
Arviat
Churchill
Chesterfield Inlet
Resolute Bay
Grise Fjord
Qaanaaq
Arctic Bay
Pond Inlet
Clyde River
Qikiqtarjuaq
Pangnirtung
IQALUIT
Cape Dorset
Coral Harbour
Kimmirut
Kangiqsujuaq
Salluit
Ivujivik
Quaqtaq
Akulivik
Kangiqsuk
Puvirnituq
Aupaluk
Kangiqsualujjuaq
Tasiujaq
Kuujjuaq
Inujjuaq
Nain
Makkovik
Hopedale
Postville
Rigolet
Sanikiluaq
Umiujaq
Kuujjuaraapik
Chisasibi
Québec

ArcticNet is committed to providing its Network Investigators, students and partners with well-coordinated land and sea access to the coastal Canadian Arctic. Only through improved and stable access can researchers establish the long-term studies and gain observations necessary to understand and document the changes occurring in the Arctic. Through collaborative partnerships, researchers also have access to the expertise of northern communities, regional authorities and governments across the four Inuit regions of Canada. At sea, ArcticNet researchers use the CCGS *Amundsen* as their principal research platform for investigating the coastal Arctic and in 2014, research was also conducted in Hudson Bay using the CCGS *Henry Larsen*. ArcticNet researchers working on land or in Inuit communities can rely on a network of research stations and laboratories such as the ones maintained by the Polar Continental Shelf Program (PCSP), the Centre d'études nordiques (CEN), the Nunavik Research Centre, the Churchill Northern Studies Centre, the Aurora Research Institute and the Nunavut Research Institute.

2 ArcticNet Network Investigators hold Canada Excellence Research Chairs

18 ArcticNet Network Investigators hold Research Chairs

ArcticNet's research program continues to support a multidisciplinary approach to address the challenges facing the coastal Canadian Arctic, with the objective of filling identified knowledge gaps to help the formulation and implementation of policies and adaptation strategies. ArcticNet addresses the present state of the coastal Canadian Arctic, and aims to anticipate the nature and magnitude of the impacts of climate change and modernization at the regional level over the coming 40 years.

Helping Canadians, particularly Inuit and other Northerners living in the coastal communities of the Canadian Arctic, adapt to their changing environment is at the core of the Network's research program. Diverse research teams from 29 universities across Canada, collaborate with stakeholders from Inuit organizations, northern communities, research institutes, industry as well as government and international agencies, creating a unique multi-disciplinary and cross-sectorial environment for managing the Canadian Arctic of tomorrow.

The Network's 39 research projects focus on five main themes: marine systems; terrestrial systems; Inuit health, education and adaptation; northern policy and development and knowledge transfer and operate across northern Manitoba, northern Yukon and the four Inuit regions of Canada: the Inuvialuit Settlement Region, Nunavut, Nunavik and Nunatsiavut.

ARCTICNET IRISES

ArcticNet's 39 research projects also contribute to four Integrated Regional Impact Studies (IRISes) that each underpin an Integrated Regional Impact Assessment (IRIA). Along with the results of other Arctic research programs and assessments, and the expertise of the Network's partners, the scientific conclusions and recommendations produced by ArcticNet projects are compiled in the Assessments developed for each region. As most ArcticNet projects operate across the Canadian Arctic, many contribute to several of the four Assessments.

IRIS 1: Western and Central Arctic

Leader: Gary Stern, University of Manitoba
Coordinator: Ashley Gaden

IRIS 2: Eastern Arctic

Leader: Trevor Bell, Memorial University of Newfoundland
Coordinator: Tanya Brown

IRIS 3: Hudson Bay

Leader: David Barber, University of Manitoba
Coordinator: Lauren Candlish

IRIS 4: Eastern Subarctic

Leader: Michel Allard, Université Laval
Coordinator: Mickaël Lemay

CCGS *AMUNDSEN*

20,000+ nautical miles transited during the 2014 CCGS *Amundsen* expedition

185,000+ nautical miles travelled by the CCGS *Amundsen* since 2003

1,500+ research days at sea on the CCGS *Amundsen* since 2003

2014-2015
Research and Monitoring

On 8 July 2014 the state-of-the-art research icebreaker CCGS *Amundsen* left her homeport of Quebec City for a 96-day expedition in support of ArcticNet and a collaboration with industry partner Imperial Oil Limited, the ArcticNet-BREA program, the Network on Climate and Aerosols (NETCARE) project, a collaboration with researchers from the Japan Agency for Marine-Earth Science and Technology and the National Institute of Polar Research and a marine research initiative led by the Canadian High Arctic Research Station.

During the three-month expedition, the *Amundsen* travelled along the coasts of Labrador and Baffin Island, and northeast towards Greenland conducting bathymetric surveys, remotely-operated vehicle dives, seabed coring and oceanographic sampling operations, and studies to determine the sources and impacts of aerosols in the Arctic as part of the NETCARE project. After transiting through Lancaster Sound to Resolute Bay, then onwards to Kugluktuk, the *Amundsen* spent four weeks in the Beaufort Sea and Amundsen Gulf region conducting mooring and seabed coring operations and acoustic surveys under the framework of ArcticNet's marine research program and BREA-funded projects. The *Amundsen* ventured into new territory as part of a collaborative initiative between Canada, Japan and the United States, spending two weeks sampling in the Beaufort and Chukchi Seas before returning east in late September. Students and teachers from the Schools on Board program joined the research teams on board from Kugluktuk to Iqaluit before the ship returned to Quebec City on 11 October, after travelling more than 20,000 nautical miles throughout the coastal Canadian Arctic.

MARINE SYSTEMS

In 2014-2015 ArcticNet researchers used the CCGS *Amundsen* as their primary platform for conducting marine sampling and monitoring activities. The CCGS *Henry Larsen* was also used for a limited oceanographic monitoring program in Hudson Bay. Direct sampling from these vessels and smaller launches, along with community-based monitoring activities and the use of remote observing technologies permitted researches to evaluate the changing marine environment from the Chukchi Sea through the Canadian Arctic Archipelago and Hudson Bay to northern Baffin Bay and Greenland.

Using the *Amundsen*, new sectors of the seabed in the Beaufort and Chukchi Seas, northern Baffin Bay and the fjords of Baffin Island were mapped to examine seabed morphology, identify geohazards, select coring sites, and understand paleoglaciological processes and sea level histories. Mapping data was delivered to the Canadian Hydrographic Service for incorporation into nautical charts to help ensure the safe navigation of Canada's waterways.

Field studies on board the *Amundsen* as well as ice camps conducted in the Canadian Arctic and Greenland allowed researchers to examine the air-sea exchange of climatically relevant gases including carbon dioxide, dimethylsulfide, and nitrous oxide. With the goal of understanding the effects of climate variability on contaminant cycling in the marine environment, researchers conducted laboratory experiments and field studies to examine the transport and transformation of mercury across the ocean-sea ice-atmosphere interface and analyzed over 350 beluga tissues to determine where mercury trends in western Arctic belugas originate.

Researchers worked with local communities along the coast of Hudson Bay to collect water samples, ice cores and conductivity-temperature-depth data to investigate changing sea ice conditions and their effects on local wildlife. The impacts of global warming on Arctic marine mammals were evaluated by collecting tissue samples, analyzing satellite telemetry data, and conducting aerial surveys to assess the health, habitat, distribution, population, spatial movement, and feeding habits of seals, whales and polar bears.

Remote Sensing of Canada's New Arctic Frontier

Project Leader: Marcel Babin (Université Laval)

The objectives of this project are aligned with those of the Canada Excellence Research Chair on "Remote Sensing of Canada's New Arctic Frontier" to: (1) Augment the observation of arctic marine ecosystems by implementing new algorithms for remote-sensing; (2) Develop, validate, and implement the ecosystem models that will help anticipate the impacts of climate change and industrialization on Arctic resources and services; (3) Adapt new observing technologies to the extreme conditions of the Arctic Ocean; (4) Mesh the expertise of ArcticNet and project partners into the development of state-of-the-art geo-referenced data archiving systems.

Sea Ice, Climate Change and the Marine Ecosystem

Project Leader: David Barber (University of Manitoba)

The arctic system is changing from one dominated by multiyear sea ice to one dominated by first-year sea ice-related processes. In the next few decades, marine ecosystems will come under incremental pressure, industrial activity will increase as more exploration and development occurs, and Inuit will find it more and more challenging to use sea ice for cultural and subsistence purposes. This project provides sea ice expertise to the coordinated ArcticNet Integrated Regional Impact Studies of the coastal Canadian Arctic, supplying the required information for sound management of these issues.

Freshwater-Marine Coupling in Hudson Bay

Project Leaders: David Barber (University of Manitoba) and Kevin Sydor (Manitoba Hydro)

Climate models predict warming in the Hudson Bay watershed that may alter the amount and timing of runoff and therefore the load of suspended solids, dissolved organic matter, nutrients, and heat delivered to the Bay. The overarching objective of this project is to describe the impact of such runoff on marine processes within Hudson Bay and to examine the cumulative impacts of climate change and hydroelectric development on these processes.

Impacts of Global Warming on Arctic Marine Mammals

Project Leader: Steven Ferguson (University of Manitoba / Fisheries and Oceans Canada)

Knowing how polar ecosystems may change with global warming will help develop strategies for conservation and species management. It is important to recognize the changing distribution and numbers of Arctic mammals, as Northerners depend on these species as a food source and integral part of their unique culture. This project examines climate change and its effects on water-based mammals in the Arctic. Research results will help Inuit communities adapt to changes in marine mammal distribution and abundance.

The Arctic cod (*Boreogadus saida*) ecosystem under the double pressure of climate change and industrialization

Project Leader: Louis Fortier (Université Laval)

The Arctic cod is a key component of the Arctic Ocean pelagic ecosystem that effects up to 75 % of the energy transfer between the plankton and the vertebrate fauna. Well adapted to life in ice-covered seas, Arctic cod is likely to be displaced by southern generalists (capelin, sand lance) as the ice regime becomes less severe. This project collaborates closely with other ArcticNet marine research projects to map the distribution and reproduction of Arctic cod in the Canadian Arctic, and to measure variations in its early life history in relation to changes in ice regime, surface temperature, and zooplankton abundance.

The Canadian Arctic Seabed: Navigation and Resource Mapping

Project Leader: Patrick Lajeunesse (Université Laval)

This project undertakes the core seabed mapping component of the ArcticNet research program. Acoustic mapping of the seabed relief, sediment distribution and shallow subsurface sediments are the prime datasets used by researchers to understand the geological processes shaping the seafloor, to assess natural hazards, hazards to navigation and coastal habitats, and to reconstruct the history of past climatic changes.

Carbon Exchange Dynamics in Coastal and Marine Ecosystems

Project Leader: Tim Papakyriakou (University of Manitoba)

Absorption and release of carbon dioxide (CO_2) by the oceans is one of the primary factors controlling atmospheric CO_2 concentration, and some of the highest CO_2 uptake rates reported anywhere have been observed within the Arctic's peripheral seas. Project researchers are undertaking field studies to parameterize the effects of several factors affecting both the distribution of dissolved CO_2 in Arctic surface water and the mechanism by which the gas is exchanged with the atmosphere. A newly developed coupled atmosphere-sea ice-ocean biogeochemistry model is used to learn how the ocean's response to climate change and variability will affect the atmosphere-ocean cycling of CO_2.

Arctic Geomicrobiology and Climate Change

Project Leader: Søren Rysgaard (University of Manitoba)

Biogeochemical transformations of carbon in sea ice will have a direct impact on the concentration of carbon dioxide in the atmosphere, and, therefore, the rate of climate change. Under the aegis of the Canada Excellence Research Chair in Arctic Geomicrobiology and Climate Change, this project is studying microbial activity and chemical transformations within sea ice and ocean sediments as they occur and is the first to intensely investigate the Arctic at the micro-scale.

Effects of Climate Change on Contaminant Cycling in the Coastal and Marine Ecosystems

Project Leaders: Gary Stern, Robie Macdonald and Feiyue Wang (University of Manitoba / Fisheries and Oceans Canada)

Contaminants pose a potential hazard to Arctic fish and marine mammal health, and ultimately to Northerners that consume their meat. The project research will help assess the vulnerability of coastal Inuit communities to climate change, document and project impacts of climate change on traditional food security and community health, and provide the information required to develop adaptation strategies.

Long-Term Marine Observatories in the Canadian Arctic

Project Leaders: Jean-Éric Tremblay and Louis Fortier (Université Laval)

This project correlates sub-surface ocean properties recorded by ArcticNet moored instruments to satellite records of surface temperature, chlorophyll, suspended sediments and sea ice type and thermodynamic state. The objectives are 1) to provide long-term detailed observations of the ocean-sea ice-atmosphere coupling in the Canadian High Arctic, 2) to identify the oceanic/atmospheric processes underlying changes in these variables, and 3) to provide baseline physical information required to understand the complexities of physical-biological coupling in the Arctic marine environment.

Marine Biological Hotspots: Ecosystem Services and Susceptibility to Climate Change

Project Leaders: Jean-Éric Tremblay (Université Laval), Michel Gosselin (Université du Québec à Rimouski) and Philippe Archambault (Université du Québec à Rimouski)

Microalgae growing in sea ice or in surface waters are the primary source of energy for the Arctic marine food web. Changes affecting the base of the food web will ultimately impact the energy intake and spatial distribution of higher trophic level marine animals such as fish, seals, whales, and polar bears. This project examines how changes in the physical environment affect the productivity and species dominance of marine organisms, particularly at the base of the food web. A comprehensive synthesis of the entire Arctic marine food web will then be assembled and made available to inform stakeholders.

TERRESTRIAL SYSTEMS

On land, ArcticNet conducts research across all regions of the coastal Canadian Arctic in order to monitor and evaluate changes to the terrestrial environment that are having direct impacts on the livelihood and wellbeing of northern populations. In 2014-2015, ArcticNet researchers continued to work with communities to collect and analyze data through field studies and using remote technologies in order to understand the current changes occurring to terrestrial systems. The ongoing development of climate change scenarios is helping to anticipate the potential changes that will occur to the Arctic environment in the future.

Intensive field work and the detailed analysis of hundreds of samples were completed for more than 30 wildlife populations. The capture and marking of wildlife, analysis of tissue samples, and monitoring of animal habitats and movement behaviour helped to assess ecosystem changes and impacts to wildlife caused by climatic variation and development. New satellite collars were fitted on caribou, black bears and wolves as part of ongoing monitoring of the Rivière-George and Rivière-aux-Feuilles caribou herds as well as other animal populations in Quebec and Labrador. Tagging, sampling and monitoring of Arctic charr and other fish species in rivers, lakes and the marine environment allowed researchers to evaluate food web structure and improve our understanding of critical fish resources.

Researchers and community members in all four Inuit regions continued to collect data on berries and vegetation. A synthesis of this data is underway and will be the first study to examine spatial and temporal variability in berry production in the Canadian Arctic. Samples of sediments, snow, and water from lakes, ponds, lagoons and the ocean were collected in order to assess aquatic resources and their ecosystems. This effort was complimented by studies of the glaciers, fjords and ice shelves of the High Arctic, allowing for a greater understanding of these unique ecosystems.

Researchers addressed the broad questions concerning the stability of ice-rich landscapes, changes in ground thermal regime and the dynamics of typical permafrost features such as massive ground ice, ice wedge polygons, active layer detachment slides and thermokarst. The collected data was used to advise communities and governments on housing expansion, urban development, and the maintenance and future construction of infrastructures such as airports and roads. Through ongoing field studies at the Cape Bounty Arctic Watershed Observatory on Melville Island, Nunavut, researchers examined how permafrost disturbance and other climate change processes are affecting High Arctic watersheds.

2014-2015
Research and Monitoring

Permafrost and Climate Change in Northern Coastal Canada

Project Leaders: Michel Allard (Université Laval) and Wayne Pollard (McGill University)

How is permafrost likely to respond to a changing climate? Using regional climate models to determine ground surface temperatures, this project monitors changes to the landscape, including the development of landforms, modification of drainage patterns, and coastal erosion. The project will provide policy makers, managers and land use planners with the tools needed to assess the impact of landscape modifications on northern communities and ecosystems.

Effects of Climate Change on Canadian Arctic Wildlife

Project Leader: Dominique Berteaux (Université du Québec à Rimouski)

Northern biological systems are undergoing major shifts related to climate change. An understanding of this transformation and its consequences is critical to anticipating ways in which effects on wildlife populations may be mitigated or addressed. Through the implementation of a wildlife monitoring program, the project identifies the main vulnerabilities of arctic wildlife using the collected data to analyze past and present responses of wildlife to climatic variability. Decision makers in the wildlife sector will be provided with a sound basis for developing appropriate management and adaptation strategies.

Climate Analysis and Scenario Development for the Canadian Arctic and Subarctic

Project Leader: Ross Brown (Environment Canada)

This project will provide researchers, stakeholders, decision-makers and communities with more accurate knowledge of current and anticipated climate changes and support sustainable development in this complex and rapidly changing environment. The main objectives of the project are: 1) to supply climate change information in support of the ArcticNet IRISes, 2) to build a climate database to support impact and adaptation studies and the production of climate projection scenarios, 3) to analyze the recent climate trends and the natural climate variability over the IRIS regions and assess the potential of the climate model to capture the observed variability and physical processes, 4) to track state-of-the-art developments in coupled cryosphere/atmosphere/ocean models to improve the reliability of climate scenarios.

Population Dynamics of Migratory Caribou in Nunavik/Nunatsiavut

Project Leader: Steeve Côté (Université Laval)

Migratory caribou are now declining almost everywhere in Canada, including northern Quebec and Labrador. The factors responsible for these declines are poorly known. This project is establishing how climate, population density, and industrial activities affect caribou abundance and distribution in the Arctic. It will provide new tools to monitor the demography of caribou and improve their conservation in the face of a changing Arctic.

Impacts of Vegetation Change in the Canadian Arctic: Local and Regional Assessments

Project Leader: Greg Henry (University of British Columbia)

The tundra across the Canadian Arctic is already reacting to climate change. This research team studies changes to tundra vegetation near Arctic communities across the North, including changes in the amount of berries produced annually in traditional picking areas. Community members are involved in designing the studies and in conducting measurements. The results will be used by communities and will contribute to national and international efforts to understand the responses of tundra ecosystems to climate variability and change.

High Arctic Hydrological, Landscape and Ecosystem Responses to Climate Change

Project Leaders: Scott Lamoureux
and Melissa Lafrenière (Queen's University)

Research at the Cape Bounty Arctic Watershed Observatory, Melville Island, Nunavut, investigates how climate change affects rivers, permafrost, soils, vegetation, greenhouse gas emissions and the release of contaminants into High Arctic rivers and lakes. Impact models based on river flow and related environmental systems are being developed. This integrated watershed network will provide an unprecedented understanding of the sensitivity and anticipated future effects of climate change on the High Arctic ecosystem.

2014-2015
Research and Monitoring

Growth Variability and Mercury Tissue Concentration in Anadromous Arctic Charr

Project Leader: Michael Power (University of Waterloo)

This project examines climate change related impacts on land-locked and migratory populations of Arctic charr. Differences in total mercury accumulation rates in the two types of charr are analysed to assess the relative influences of diet, temperature and habitat on growth and total mercury accumulation along a north-south gradient. An enhanced understanding will permit more accurate prediction of the effects of climate change on the important migratory stocks of Arctic charr used by Inuit in traditional subsistence fisheries. This research will also inform policy on the issues associated with country food consumption in the face of climate change.

Freshwater Resources of the Eastern Canadian Arctic

Project Leader: Warwick Vincent (Université Laval)

Lakes and wetlands are major ecological features of the circumpolar Arctic, and they provide many essential services including habitats for wildlife, drinking water supplies for northern residents, and water for industrial activities. This project continues and extends observations on lakes and wetlands at key sites in the eastern Canadian Arctic to identify and measure aquatic indicators of environmental change in the past and present. These studies will allow assessments of future changes in northern freshwater ecosystems to help guide the formulation of environmental management and monitoring policies.

Hydro-ecological Responses of Arctic Tundra Lakes to Climate Change and Landscape Perturbation

Project Leader: Fred Wrona (University of Victoria)

Significant changes in climatic regimes are expected to have far-reaching impacts on the hydrology and ecology of Arctic freshwater ecosystems. This project is aimed at conducting integrated landscape-lake process and modelling studies to improve the regional understanding of the upland tundra lakes sensitivities and responses to climate variability and change. An integrated landscape-geochemical, lake-ice, hydro-ecological model for Arctic systems is being developed and validated. Project outputs will inform adaptation options for the conservation, protection and management of Arctic freshwater ecosystems.

INUIT HEALTH, EDUCATION AND ADAPTATION

Northerners are feeling the impacts of the ongoing transformation of the coastal Canadian Arctic most severely. Changes to marine and terrestrial ecosystems and increased development bring both positive and negative consequences to all aspects of life including health, hunting practices, food security, living conditions, economy and education. Over the last year, ArcticNet conducted multidisciplinary research in all four Inuit regions of Canada: Inuvialuit, Nunavut, Nunavik and Nunatsiavut in an effort to address issues important to Northerners. In addition to collecting data, ArcticNet researchers and students coordinated numerous workshops, meetings, and outreach activities and built on a growing number of community-based and community-led research and monitoring projects in 42 of Canada's 53 Inuit communities.

As the majority of Inuit communities in the Canadian Arctic are on the coast, researchers and community members worked towards a better understanding of changing coastal landscapes through field observations and the collection of numerous meteorological, geological, geotechnical and biological datasets. To evaluate the effects of the proposed Lower Churchill hydroelectric project on Inuit community health and wellbeing in the Lake Melville region of Labrador, researchers completed studies of the sediments, water, sea ice and benthic environment as well as conducting a dietary survey of Inuit from the region.

With rates of food insecurity among Canadian Inuit significantly greater than the national average, in 2014-2015 a major focus was placed on translating the knowledge developed through ArcticNet's food security projects to community members and organizations, health departments and governments. Further analysis of the nutrients present in the country foods that make up traditional northern diets, helped to develop community-based interventions aimed at improving country food consumption and food security, promoting Inuit culture, and minimizing the risks arising from environmental contaminant exposure and the emergence of obesity, type 2 diabetes and cardiovascular diseases in the Arctic. Fieldwork and knowledge sharing activities were also carried out throughout the year in six northern communities as part of a comprehensive investigation of *H. pylori* infection in the western Arctic.

Archival research, literature reviews and interviews with community members were undertaken to examine the history of post-secondary programs in the North, and best practices in Inuit education at the high school level were shared at conferences and symposiums. The number of members registered with Tukitaarvik, an interactive website providing information and networking for Inuit students interested in post-secondary education, doubled to 168 in the past year. Through ongoing collaborations with educators, parents, community members, and students and new education initiatives, the Network is exploring avenues to improve access to education for young Northerners.

2014-2015
Research and Monitoring

Country Foods Health Benefits in a Changing Canadian Arctic

Project Leader: Pierre Ayotte (Université Laval)

For centuries, to survive in the Arctic, Inuit had to rely on fish, mammals and some plants such as wild berries. However, since the 1990s, they have increasingly adopted a western diet, which has led to excessive intake of carbohydrate, salt and trans-fatty acids. Cardiovascular diseases and risk factors have recently become major health issues. This project studies the overall benefits of nutrients present in the country foods consumed in Nunavik with the goal of informing public policies aiming to improve country food consumption and food security, minimize the risks from environmental contaminant exposure and limit the emergence of obesity, diabetes and cardiovascular diseases in Arctic peoples.

Instability of Coastal Landscapes in Arctic Communities and Regions

Project Leaders: Trevor Bell (Memorial University) and Don Forbes (Memorial University / Natural Resources Canada – Geological Survey of Canada)

Future climate scenarios and impact modelling predict changes in climate variables that may increase coastal landscape instability and hazard risk. Through improved understanding of changes in climate, sea level, sea ice, storms and waves, this project assesses integrated impacts on coastal landscape stability, including flooding, erosion, habitat integrity, and community vulnerability. Together with northern communities and partners, the project will promote informed choices of adaptation measures and enhanced resilience in northern coastal communities.

Understanding and Responding to the Effects of Climate Change and Modernization in Nunatsiavut

Project Leaders: Trevor Bell (Memorial University) and Tom Sheldon (Nunatsiavut Department of Lands and Natural Resources)

With the involvement of Inuit and other partners, Nunatsiavut Nuluak is addressing Inuit concerns about the impacts of climate change, modernization and contaminants on the health of marine ecosystems and communities of Northern Labrador. Project findings are used to develop adaptation strategies and polices that have direct relevance for the people, industries and environment of Northern Labrador.

Food Security, Ice, Climate and Community Health: Climate Change Impacts on Traditional Food Security in Canadian Inuit Communities

Project Leaders: Laurie Chan (University of Northern British Columbia) and Christopher Furgal (Trent University)

Collaborating with Canadian Arctic communities, this project is investigating how and to what extent climate change is presently affecting the traditional diet profile of northern aboriginal residents and how and to what extent it may affect it in the future, and subsequently, what implications this may have for individuals' health. The project focuses on nutrition and potential changes in nutrient intake, exposure to contaminants, and levels of food security.

Climate Change and Food Security in Regional Inuit Centres

Project Leader: James Ford (McGill University)

Food insecurity is a chronic problem affecting many Inuit communities and is likely to predispose Inuit food systems to the negative effects of climate change. Using in-depth case studies, this project aims to identify and characterize the vulnerability of food systems in four regional Inuit centres to climate change as a basis for identifying adaptation entry points.

Inuit Knowledge and Geospatial Ontologies in Nunatsiavut

Project Leaders: Chris Furgal (Trent University) and Tom Sheldon (Nunatsiavut Department of Lands and Natural Resources)

This project undertakes a participatory geographic information system (GIS) and geospatial ontology research exercise with expert knowledge holders in the Nunatsiavut Settlement Area. The goal is the development of a geospatial ontology application and interface that complements existing GIS for land-use planning, environment and development decision-making, as well as Inuit knowledge representation and transmission in Nunatsiavut.

Community-Driven Research on *H. pylori* Infection in the Inuvialuit Settlement Region

Project Leader: Karen Goodman (University of Alberta)

Helicobacter pylori infection has become a major concern for many northern communities and their health care providers. These concerns initiated a large collaborative project to investigate the health risks of *H. pylori* and develop locally appropriate control strategies. This project seeks to expand these efforts to include other northern communities and ultimately to improve the success of *H. pylori* infection treatment methods, provide health authorities with information to guide relevant public health policy, and to help concerned community members understand *H. pylori* health risks.

2014-2015
Research and Monitoring

Mobilizing Knowledge Through a Network of Inuit Educational Leaders and Researchers: Bilingual Education in Inuit Nunangat

Project Leader: Alexander McAuley (University of Prince Edward Island)

This project is an innovative research initiative that uses digital technologies to harness the expertise of Inuit and non-Inuit parents, educators, researchers and collaborators to develop and share effective, research-supported, bilingual education strategies across Inuit Nunangat. Bilingual education that builds on research knowledge as well as knowledge held in Inuit communities is critical to the future economic, cultural and linguistic success of Inuit in Canada. Using a grassroots, community-based approach, this initiative is poised to make a significant contribution to the well-being and sustainable future of Inuit in the Canadian Arctic.

International Inuit Cohort Study: Developing the Next Phase

Project Leader: Mylène Riva (Université Laval)

This project merges the data from the major Inuit health surveys conducted in Canada and Greenland. From this new database, health indicators of global changes are being extracted to show geographical differences according to Inuit regions and IRIS territories. New information is also being collected at the community level in order to understand if different infrastructure or demographic variables are associated with chronic diseases or risk factors.

Improving Access to University Education in the Canadian Arctic

Project Leader: Thierry Rodon (Université Laval)

This project provides evidence-based research on Inuit participation in university education with the objective of promoting a national discussion amongst providers of university programs in Inuit Nunaat, northern institutions and Inuit organizations in order to define a more coordinated effort in program delivery and curriculum development.

Adaptation in a Changing Arctic: Ecosystem Services, Communities and Policy

Project Leader: Barry Smit (University of Guelph)

This project documents the changing physical, biological and socio-economic conditions that are affecting people in the Arctic and identifies policies and strategies to assist communities in dealing with these changes. The main focus of the project involves integrating scientific and traditional knowledge of ice, permafrost, coastal dynamics and wildlife with information about community use of these ecosystem services.

Inuit Qaujimajatuqangit and the Transformation of High School Education in Nunavut

Project Leader: Fiona Walton (University of Prince Edward Island)

How can Inuit educational leaders work with parents in communities to create a school system to meet the challenges of the 21st century? How can a curriculum grounded in traditional beliefs and values contribute to the personal and academic success of Inuit high school students? This project aims to explore these questions and to document the role of culture and language in student learning in order to provide ideas and examples as tools for northern communities attempting to transform local education.

NORTHERN POLICY AND DEVELOPMENT

ArcticNet strives to translate our growing understanding of the Arctic into impact assessments, national policies and adaptation strategies for the Canadian public as well as government and industry stakeholders (oil and gas, navigation, mining, tourism, hydroelectric) whose mandate it is to manage a changing Arctic. Throughout 2014-2015, research efforts were focused on Arctic security; international boundary disputes; the impacts of historic and contemporary mining exploration and development on northern communities; and how scientific research conducted within the Network is having an impact on social, environmental and economic conditions in northern Canada.

ArcticNet members received frequent requests to share their expertise on Arctic sovereignty, security, and governance topics with politicians and policy-makers in Canada and abroad. Activities included; serving as academic representatives in the Arctic Security Working Group; standing as witnesses before the House of Commons Standing Committee on National Defence; advising the Canadian Armed Forces, federal departments and other stakeholders on security issues; and delivering presentations at numerous conferences, workshops, government meetings and stakeholder gatherings in Canada, the United States, Europe and Asia.

ArcticNet contributed critical geopolitical expertise following the December 2013 decision to withhold the Arctic Ocean portion of Canada's submission to the Commission on the Limits of the Continental Shelf, and again after Denmark's December 2014 submission that included the entire Lomonosov Ridge. International conferences, workshops and meetings with foreign lawyers and diplomats from Russia, Denmark, Iceland, Norway, the European Union and the United States are helping to avoid future misunderstandings and promote collaboration in the context of a changing Arctic geopolitical landscape.

Through community-based research projects, Network members evaluated the impacts of mining development on community life and wellbeing for Northerners and examined the ways that Indigenous Knowledge has been integrated into decision-making and policies surrounding industrial development in the Arctic. Collection and analysis of data was continued in order to study the current science-policy landscape in Canada and to assess end-user perspectives on the value, challenges and benefits of the IRIS process as a policy-informing mechanism.

2014-2015
Research and Monitoring

The Law and Politics of Canadian Jurisdiction on Arctic Ocean Seabed

Project Leader: Michael Byers (University of British Columbia)

The possibility that the Arctic Ocean seabed contains vast deposits of hydrocarbons is attracting considerable attention. This research project focuses on several outstanding maritime boundary disputes—involving the United States, Denmark and potentially Russia—that had to be resolved before Canada submitted a comprehensive package of information to the UN Commission on the Limits of the Continental Shelf in 2013. The project analyzes the legal and political differences involved in the different disputes, explores the various options for resolving them, and provides detailed recommendations.

Integrating and Translating ArcticNet Science for Sustainable Communities and National and Global Policy and Decision-Making

Project Leaders: David Hik (University of Alberta) and Chris Furgal (Trent University)

This project investigates the arctic policy landscape and how ArcticNet science contributes to informed policy decisions in Canada and globally. The conclusions from this project will allow ArcticNet to address the most effective ways to use and translate ArcticNet research results on urgent issues such as climate change into "action" or decision-making at the local, regional, national or international levels.

The Emerging Arctic Security Environment

Project Leaders: Rob Huebert (University of Calgary) and Whitney Lackenbauer (St. Jerome's University)

This project aims to better understand the developing Arctic security trends in the circumpolar region by addressing these questions: (1) What are the reasons behind the new foreign, defence and security policies of Arctic states? (2) What are the ramifications of these actions and the possibilities/probabilities for conflict and cooperation in the region? The project also systematically analyzes the relationship between sovereignty, security and safety in Canadian political discourse and policy, and critically examines the historic and contemporary practice of Arctic sovereignty and security assertion in evolving cultural, political and spatial contexts.

Adaptation, Industrial Development and Arctic Communities

Project Leader: Arn Keeling (Memorial University)

This project is engaging in community-based, historical and comparative research on industrial development as a driver of social, cultural and environmental change in the Arctic. In particular, researchers explore the cultural, economic and environmental impacts of mineral exploration and development on three Arctic communities. Ultimately, this project will be useful for communities and policy makers in assessing the potential benefits and impacts of current development proposals.

Climate Change and Commercial Shipping Development in the Arctic

Project Leader: Frédéric Lasserre (Université Laval)

Is Arctic shipping really going to develop as fast as generally predicted in Canada? What sectors of the shipping industry might be interested in plying a seasonal, poorly mapped, unsupported northern route? Will containerized cargo liners between Europe and Asia rush to utilize the route? Working closely with international shipping companies, this project is addressing these questions in order to evaluate the issues of shipping development in the region.

KNOWLEDGE TRANSFER

To facilitate data sharing amongst ArcticNet researchers, partners and stakeholders, the Network invests in projects dedicated to the transfer of knowledge gained from its research program, as well as other northern research projects and initiatives. ArcticNet supports the development of tools that help researchers share and preserve their data and that help users properly find, visualize, and use this data. Through the Network, connections between Inuit and Arctic researchers continue to build and Inuit-specific information management and transfer systems that support the ethical collection, discovery, and preservation of Inuit and scientific knowledge are being developed.

The Polar Data Catalogue (PDC) continues to be a leader in Canada in building reliable infrastructure for archiving, serving, and sharing Arctic and Antarctic data and contributing to polar data management policies and best practices. The PDC's engagement with ArcticNet members intensified in 2014-2015 with the entering of 95 new metadata records and 50 new datasets, for a total of 763 total approved metadata and 84 total datasets, comprising 4,069 data files, including many new ship-based datasets from the CCGS *Amundsen*. The online PDC Search application was updated with new enhancements and features including the addition of the Canadian Ice Service sea ice chart collection, transformation of the PDC metadata to the ISO 19115 standard, and integration of the 2008 RADARSAT-2 mosaics of Antarctica, an event that elicited worldwide response and generated a great deal of traffic to the PDC website.

Inuit Qaujisarvingat (IQ), the Inuit Knowledge Centre of Inuit Tapiriit Kanatami (ITK) continued to build relationships and improve research connections within and between IQ, Inuit organizations and northern researchers through meetings, workshops, outreach activities and the development of new academic and private sector partnerships. Using the metadata sharing link established with the PDC, IQ can now readily harvest metadata records that are of specific interest to Inuit, and metadata are continuously updated to include Inuit-specific information and keywords for easier searching. Efforts were focused on the development of new content for the IQ website as well as the creation of a geographic information infrastructure housed at IQ through ongoing server and software maintenance and the deployment of new GIS, web mapping, and geographic ontology tools.

Polar Data Management for Northern Science

Project Leader: Ellsworth LeDrew (University of Waterloo)

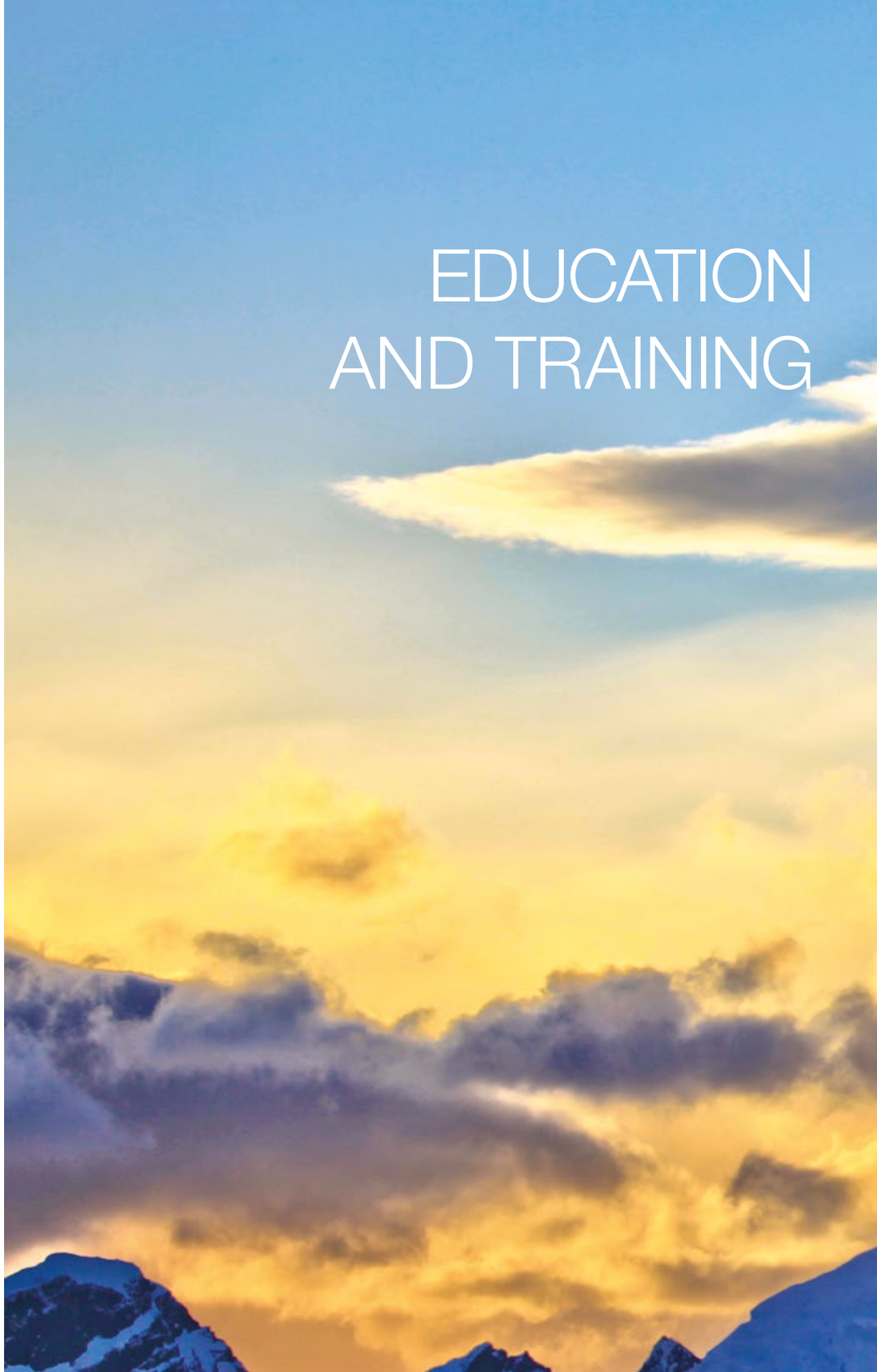
The central objective of this project is to facilitate exchange of information and data about the polar regions among researchers and other user groups, including northern communities and international programs. Initially established by ArcticNet and CCIN, the Polar Data Catalogue (PDC) is now Canada's primary on-line source for data and information on research in the polar regions. The project team is now working with other national and international projects toward integrated data management systems to ensure (1) that polar metadata and datasets are preserved for the long term and are publicly accessible on the PDC in a timely and user-friendly format, and (2) the development of PDC data tools for use by various stakeholders, especially northern communities.

Enabling the Coproduction of Inuit and Science Knowledge Through Integrated Information Management

Project Leader: Scot Nickels (Inuit Tapiriit Kanatami)

Led by Inuit Qaujisarvingat: The Inuit Knowledge Centre (IQ) of Inuit Tapiriit Kanatami (ITK), the goal of this project is to develop and maintain an Inuit-specific integrated information management system (IIMS) that supports the ethical collection, discovery, preservation and use of Inuit knowledge and provides access to this information. The project will initially focus on: 1) procedural tools, 2) a database of funded Arctic research projects, and 3) datasets including bibliographic databases, Inuit health data, and local environmental knowledge data. The development of this IIMS will give Inuit and northern researchers in Canada and abroad the appropriate levels of data and information required to prepare for the changes to their world.

EDUCATION AND TRAINING



Since its inception, ArcticNet has been implementing a comprehensive training strategy to recruit and train a complete generation of researchers and technicians critical for studying and monitoring the transformation of the North. ArcticNet continues to strive to increase the awareness of young Canadians to Canada's Arctic dimension and to the possibilities of fascinating careers in the North.

Over 50 undergraduate students, 350 graduate students and post-doctoral fellows and 550 research associates and technical staff are currently completing their training or working within ArcticNet's unique multidisciplinary, trans-sector and international network. Whether at sea, on the Arctic tundra, across glaciers and ice shelves, in Inuit communities, or attending international schools and meetings, ArcticNet's young researchers are working, discussing and debating with the best Canadian and foreign experts in the natural, health and social Arctic sciences. They have formed the remarkably active ArcticNet Student Association (ASA), which hosts Student Day during the Annual Scientific Meeting as well as regional workshops to discuss how to adapt student research to meet Network objectives. ArcticNet's Training Fund has supported the participation of dozens of Network students in international Arctic field schools, courses and learning programs. The accomplishments of these hundreds of young ArcticNet researchers provide a positive direction for future Arctic research and the management and stewardship of a rapidly changing Arctic world.

SCHOOLS ON BOARD

Schools on Board continues to deliver unique, hands-on learning experiences for high school students and teachers across Canada, bridging Arctic climate change research and high school education within ArcticNet's multidisciplinary research environment. In the fall of 2014, ten students and two teachers boarded the research icebreaker CCGS *Amundsen* to take part in ArcticNet's marine field program, participating in research activities as the ship transited through the famed Northwest Passage and the spectacular fjords along Baffin Island's east coast. Schools from Canada's North and South were represented, with participants from Inuvik, NT, Cambridge Bay, NU, Baker Lake, NU, Whitehorse, YT, Dawson Creek, BC, Salt Spring Island, BC, Penticton, BC, Winnipeg, MB, Dauphin, MB, and Montréal, QC.

In conjunction with the international Arctic Change 2014 conference, Schools on Board organized the Arctic Climate Change Youth Forum, held on 8 December at the Canadian Museum of Nature and co-hosted by Canterbury High School in Ottawa. Attended by approximately 150 high school students and teachers, the biennial event included interactive presentations and workshops delivered by students from the North and South, researchers and northern community members. Schools on Board was also instrumental in developing and leading a topical session on education, outreach and communications at Arctic Change 2014. The *Are we Successfully Linking Scientific Research to Education, Public Policy and Environmental Awareness* session brought together program coordinators, leaders and scientists to present and discuss a variety of models and best practices for addressing common challenges and barriers to program assessment.

Schools on Board continued to work with the ArcticNet Student Association in the implementation of outreach programs, including the successful Arctic Science Day in Winnipeg, that has been a model for other similar events in Cambridge Bay, Resolute and Quebec City. After a decade of operations, a program evaluation was conducted to assess the short- and long-term impacts of Schools on Board on student and teacher participants. The evaluation highlighted the immense success of the program in increasing participants' awareness of the Arctic environment, climate change impacts, and northern social issues as well as opening doors to employment, scholarship, and post-secondary opportunities for students and encouraging teachers to use more hands-on learning approaches in the classroom.

"Schools on Board played a huge part in what I've done for education. I went to the University of Manitoba and did my undergrad research in environmental studies. Now I work for the Sea-ice Environmental Research Facility at the University. I'm working with the group that is running Schools on Board, but now as a scientist."

- Former Schools on Board participant (*Schools on Board Evaluation Report*, 2015)

"Unlike anything you've done before. It was like a dream. We all had stars in our eyes. It was amazing and introduced us to another world. To actually be able to see the ice cracking and see firsthand what global warming is doing to the world. It went above and beyond anything I've ever experienced."

- Former Schools on Board participant (*Schools on Board Evaluation Report*, 2015)

ARCTICNET STUDENT ASSOCIATION

Representing over 450 students and postdoctoral fellows, the ArcticNet Student Association (ASA) promotes student learning, leadership, research and networking opportunities between students, academics, government partners, and Northerners. In 2014-2015, the ASA Executive Committee, composed of highly motivated graduate students from across Canada, organized regional and international meetings, provided support to the Schools on Board program and collaborated with other student-run organizations including the Association of Polar Early Career Scientists (APECS) and the ADAPT Early Career Researchers Association. Throughout the year, ASA students also remained active in presenting their research and organizing outreach activities in the northern communities where they work.

2014 STUDENT DAY: COOPERATION IN POLAR RESEARCH

Jointly organized by the ASA and APECS, Student Day 2014 was held from 8 to 9 December as part of the international Arctic Change 2014 conference in Ottawa. The Student Day events included workshops and presentations delivered by internationally recognized researchers from academia, government and industry along with northern community members. Sessions focused on skill development; collaboration with northern communities, industry and international partners; and the communication of science to both academic and public audiences through a variety of mediums. Attended by over 600 participants from around the globe, Student Day was a highly successful training and networking event for both students and mentors.

REGIONAL TRAINING AND OUTREACH EVENTS

In 2014-2015, the ASA focused its efforts on the organization of outreach events aimed at raising awareness of climate change impacts on the Arctic. As part of Arctic Change 2014, the ASA supported Schools on Board in hosting the Arctic Climate Change Youth Forum, with members of the ASA serving as workshop leaders. The ASA was also instrumental in the organization and execution of the annual Arctic Science Day held on 21 February in collaboration with the Arctic Science Partnership, Schools on Board, and NSERC Promoscience. This very successful outreach event was attended by students and teachers from middle schools and high schools in the Winnipeg area and featured demonstrations and activities presented by graduate students on a broad range of topics related to Arctic research. In collaboration with the Climate Change Connection, the ASA also delivered several workshops and roundtable discussions focusing on climate change in the Arctic throughout the year.

TRAINING FUND

85+ graduate students have benefited from ArcticNet's training fund since 2004

Well established within the Network since 2005, the ArcticNet Training Fund encourages ArcticNet students to take part in international field schools covering different aspects of Arctic research. The field courses provide students with an opportunity to interact with world-renowned scientists and fellow students to share expert insight and technical training in fields ranging from glaciology and climate to remote sensing and microbial ecology. Over 85 ArcticNet graduate students have taken advantage of the training fund since its inception. In 2014-2015, 13 students were granted a total of over $30,000 to attend high level national and international training offered by leading Arctic researchers in Alaska, Germany, Greenland, Italy, Ontario, Quebec and Yukon.

"Not only did the training fund allow me to realise one of my biggest dreams, to travel to the Arctic, but it also provided me with an extraordinary experience to acquire valuable knowledge in my field of research."

- Graduate Student, McGill University
Arctic Science Partnership Annual Field School/Snow-Covered Sea Ice, Nuuk, Greenland

"This training experience has provided me with a fantastic introduction to undertaking field work in the Arctic. The skills and knowledge which I have acquired through this course will act as the foundation for future fieldwork as I move forward in my graduate and postgraduate studies."

- Graduate Student, University of Ottawa
Northern Field Research Course, Yukon and Alaska

2014-2015
Education and Training

FIELDWORK SAFETY TRAINING FUND

ArcticNet is committed to achieving health and safety excellence in all activities and operations conducted as part of its funded projects. The ArcticNet Fieldwork Safety Training Fund was created in 2014-2015 to help support Network Investigators and their graduate students, post-doctoral fellows and staff participate in safety courses pertaining to fieldwork carried out as part of their ArcticNet funded projects. The fund covers 75 % of the total cost of an individual's participation in a course, including course fees, travel and accommodations. Over the past year, the fund has helped 47 ArcticNet members gain valuable safety training in preparation for fieldwork conducted on land and at sea.

RECOGNITION OF EXCELLENCE FOR ARCTICNET STUDENTS AND POSTDOCTORAL FELLOWS

In addition to the numerous ArcticNet students and postdoctoral fellows who were awarded highly competitive scholarships from national and provincial granting councils, ArcticNet is proud to have a number of its current and former graduate students among the recipients of the prestigious 2014-2015 academic awards for student and postdoctoral research in northern Canada.

W. Garfield Weston Awards

The W. Garfield Weston Awards for Northern Research enable leading scientists to pursue rigorous research in Canada's sensitive northern regions. Awards at the Masters, Doctoral, and Postdoctoral level are presented to outstanding students and researchers, whose work spans Canada's great North during each field season.

Postdoctoral Fellowships ($50,000)

- Dr. Corinne Pomerleau, University of Manitoba
- Dr. Frédéric Bouchard, Université de Montréal

Doctoral Scholarships ($50,000)

- David Yurkowski, Environmental Science, University of Windsor
- Emily Choy, Biological Sciences, University of Manitoba
- Laura Thomson, Geography, University of Ottawa
- Maxime Geoffroy, Oceanography, Université Laval
- Noémie Boulanger-Lapointe, Geography, University of British Columbia

Masters Scholarships ($15,000)

- Philippe Galipeau, Wildlife and Habitat Management, Université du Québec à Rimouski

Canadian Polar Commission Scholarship ($10,000)

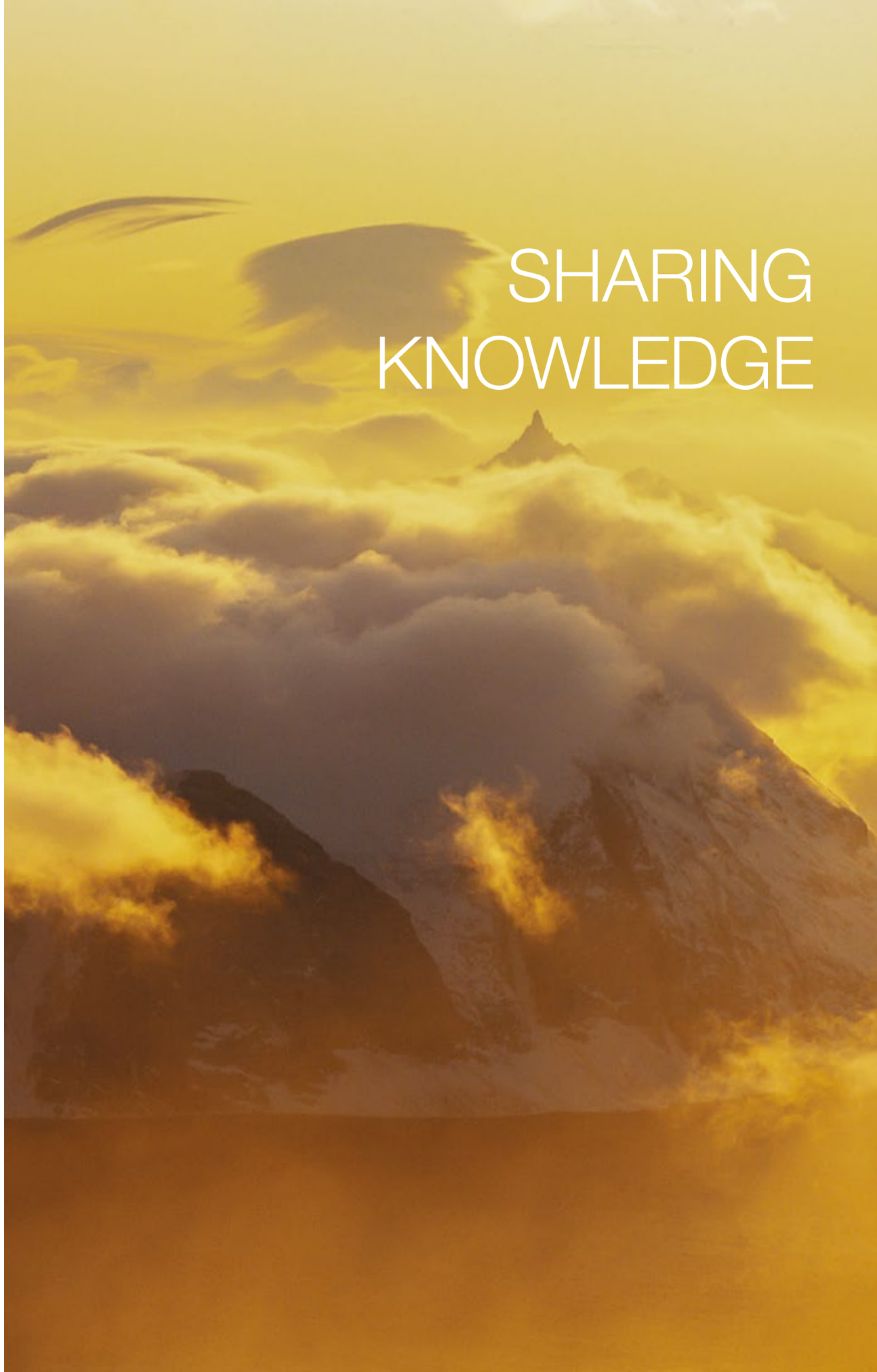
The Canadian Polar Commission encourages excellence in polar studies by offering an annual scholarship to an outstanding doctoral student. The winners have gone on to take their places in the forefront of a new generation of polar researchers.

- Sheena Kennedy-Dalseg, PhD Candidate, Public Policy and Political Economy, Carleton University

Northern Resident Scholarship ($10,000)

The Northern Resident Scholarship is awarded to graduate students from the North who demonstrate leadership in northern scholarship and whose circumpolar research is making a contribution to the Canadian North.

- Robert Way, PhD Candidate, Physical Geography, University of Ottawa



Disseminating the findings and the results of our research is a key component of ArcticNet's mission. We share our knowledge with an increasing number of stakeholders, from decision makers to fellow scientists and the general public. Published research results also spur new and more innovative projects, and widen the possibilities for collaborations. At the community level, access to results enables individuals to make informed decisions about their environment. It also helps decision makers in addressing the issues that Northerners deal with on a daily basis.

ARCTICNET SCIENTIFIC PUBLICATIONS

www.aina.ucalgary.ca/arcticnet

1,200+ Scientific publications by ArcticNet researchers in 2014-2015

400+ Refereed publications by ArcticNet researchers in 2014-2015

3,100+ Publications in the ArcticNet Publications Database

1,900+ Referred publications in the ArcticNet Publications Database

The number of ArcticNet scientific publications continues to grow every year, reflecting the successful implementation of ArcticNet's research plan and the breadth of activities undertaken by the Network's researchers. These publications illustrate the expansion of our understanding of the ongoing transformation of the Arctic and its impact on northern ecosystems and societies. In the past year, ArcticNet members delivered over 1,200 scientific publications, including more than 400 in refereed books and journals including *Nature Climate Change, Geophysical Research Letters, Frontiers in Ecology and the Environment, PNAS, The ISME Journal, Environmental Science and Technology, Proceedings of the Royal Society B* and the *American Journal of Public Health.*

The ArcticNet Publications Database now lists a total of over 3,100 publications including 1,900 refereed publications. The online database is updated annually and is maintained by the Arctic Science and Technology Information System (ASTIS), a project of the Arctic Institute of North America at the University of Calgary.

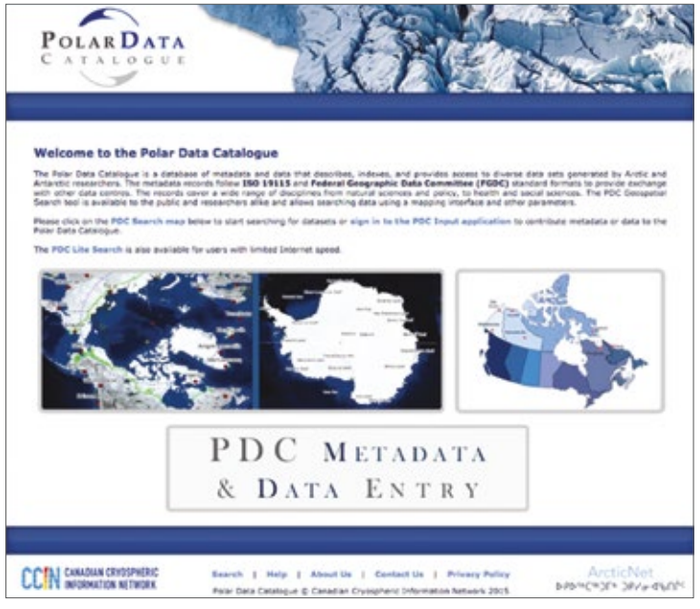
2014-2015
Sharing Knowledge

POLAR DATA CATALOGUE

www.polardata.ca

ArcticNet recognizes the importance of managing the wealth of knowledge and data generated by polar research to ensure and maximize the exchange and accessibility of relevant data and to leave a lasting legacy. The Polar Data Catalogue (PDC) is the public metadata and data repository for ArcticNet and a growing number of Canadian and international research programs, including the Northern Contaminants Program, the Circumpolar Biodiversity Monitoring Program, the Canadian International Polar Year Program, the Beaufort Regional Environmental Assessment, the Canadian High Arctic Research Station, and the Nunavut General Monitoring Plan. The PDC was developed as a collaborative effort between ArcticNet, the Canadian Cryospheric Information Network, Fisheries and Oceans Canada, and Noetix Research Inc. to facilitate the exchange of information about the Canadian Arctic between researchers and other user groups, including northern communities and international programs.

Archiving and publication of metadata and data in the PDC continued at a fast pace in 2014-2015, with the addition of hundreds of new metadata and over 100 new datasets. The PDC was approved as a member of the World Data System, and PDC staff have taken on a number of leadership roles in the international data management community, including hosting of the second Polar Data Forum to be held in Waterloo in October 2015 and serving as the Canadian national representatives to the newly-formed Arctic Data Committee of the International Arctic Science Committee/SAON. Through the PDC, funding agencies and other organizations in Canada have been engaged in a national effort to coordinate polar data activities, and the number of metadata sharing links with Canadian and international polar data portals has doubled. These and other ongoing efforts continue to strengthen polar data management in Canada and position ArcticNet and the PDC as critical contributors to Arctic and Antarctic research data management for the future.



INFORMING POLICY

Communicating results to non-scientific audiences is central to the Network's mission and ArcticNet strives to provide information that will allow policy makers to make informed decisions. To address identified knowledge gaps and research challenges, ArcticNet's 39 research projects contribute to four Integrated Regional Impact Studies (IRISes), corresponding to the main political-physiographic-oceanographic regions of the coastal Canadian Arctic. ArcticNet is working together with its partners in the four Inuit regions of Canada: the Inuvialuit Settlement Region, Nunavut, Nunavik and Nunatsiavut as well as stakeholders from the public, private and government sectors to focus its research efforts on priority issues for Canadians as they deal with the challenges and opportunities of climate change and modernization in the North.

In 2014-2015, ArcticNet, with partners from Golder Associates Ltd., Fisheries and Oceans Canada-Institute of Ocean Sciences, the Canadian Coast Guard and Imperial Oil received $2M in funding through the Environmental Studies Research Fund (ESRF) for its integrated Beaufort Observatory (iBO) project, a $15M partnership aimed at maintaining and enhancing the monitoring of environmental conditions in the Beaufort Sea commenced under ArcticNet's marine observatories project funded through the Beaufort Regional Environmental Assessment. Over the next four years, the iBO project will collect a range of oceanographic data from moorings deployed in the Beaufort Sea using the CCGS *Amundsen* and CCGS *Sir Wilfrid Laurier*. Along with other ESRF-funded projects, the data from iBO will assist in decision-making related to oil and gas exploration and development on Canada's frontier lands.

In October 2014, ArcticNet helped organize the Northern Housing Forum, jointly presented by the Government of Quebec and Université Laval to engage researchers, government representatives, community members and industry in discussions about policy challenges, housing design, community development, and housing ownership in Nunavik. From 25 to 27 February 2015, ArcticNet's directors and several of its Network Investigators presented at the International Symposium on Northern Development held in Quebec City. Co-chaired by the Quebec Government and the Nordic Council of Ministers, and organized in collaboration with Université Laval, the symposium brought together researchers, northern community members and industry as well as government representatives from Quebec and several Arctic countries to exchange knowledge related to the sustainable development of Northern Quebec under Quebec's Plan Nord.

ARCTICNET IN THE NEWS 2014-2015

ArcticNet research featured in

300+

media articles and broadcasts in 2014-2015

40+

articles and news stories generated from the Arctic Change 2014 conference

With ArcticNet's high level of knowledge and expertise, the Network's managers and researchers are often called upon by the media for interviews regarding issues of critical importance to Canada's north, its People and the Arctic in general. Many projects led by ArcticNet Network Investigators received intense national and international media coverage throughout 2014-2015, bringing Arctic research to the attention of many viewers and readers worldwide. The work of ArcticNet researchers was featured in print, broadcast and new media, informing the public about the rapidly changing Arctic. Some of the highlights include:

- Over 300 articles and programs featuring ArcticNet projects and researchers were printed and broadcast by international (Deutsche Welle, L'Express, Le Monde, National Geographic, Popular Science, The Wall Street Journal), national (Aboriginal Peoples Television Network, CBC, CTV, Global News, iPolitics, La Presse, National Post, Ottawa Citizen, Radio-Canada, The Gazette, The Globe and Mail, Toronto Star) and northern (Above & Beyond, L'Aquilon, Northern Journal, Nunatsiaq News) media and from many countries including Australia, Belgium, Canada, France, Germany, Greenland, the UK, and the United States.
- The Globe and Mail's Science Reporter, Ivan Semeniuk, joined Chief Scientist Louis Fortier and a team of ArcticNet and international scientists on board the *Amundsen* in the Beaufort and Chukchi Seas in September and October of 2014. Mr. Semeniuk produced a series of articles for the online and print versions of the newspaper, including a cover story, highlighting the marine research conducted by the Network.
- ArcticNet's directors, Louis Fortier and Martin Fortier were solicited frequently for interviews and were featured in national and international media discussing the Network's multidisciplinary research program, climate change, international collaborations, the Arctic Change 2014 conference, and the CCGS *Amundsen* program.
- ArcticNet research was highlighted internationally from the Arctic Change 2014 conference in Ottawa. Over 40 articles and news stories were published by a variety of traditional and online outlets, highlighting the multiple themes being discussed by researchers, Northerners and industry over the week-long conference in December.
- Through interviews and articles in numerous national and international media outlets, including frequent appearances in The Globe and Mail and the National Post, Network Investigators Michael Byers and Rob Huebert continued to inform the public about Arctic security and boundary disputes, the commercial and industrial exploitation of Arctic resources, international claims to the North Pole, and the discovery of Sir John Franklin's missing ship, the HMS *Erebus*.

POLAR PHOTOGRAPHY

www.polarphotogallery.com

Over the years, ArcticNet's photo gallery has been an important tool for the Network to communicate and illustrate its research activities and share images of the rapidly changing Arctic with the general public. ArcticNet photos have been featured in dozens of prominent national (The Gazette, Ottawa Life, The Globe and Mail, UpHere, Above & Beyond, Canadian Geographic) and international (Time Magazine, GEO Magazine, Washington Post, Le Monde, Al Jazeera) print and electronic media publications. Our photos have also illustrated numerous policy relevant documents for Canada's Northern Strategy, the Canadian Polar Commission, Aboriginal Affairs and Northern Development Canada and the Arctic Monitoring and Assessment Programme of the Arctic Council.

The Polar Photography gallery currently displays over 800 dynamic and eye-catching photos of the Arctic and Antarctic regions. Captured through the efforts of the Network as well as other organizations and individuals, these photos showcase the research, landscapes, wildlife and people of the Polar regions. ArcticNet continues to seek new contributions from external organizations and professional photographers to build on this growing collection.

NETWORKING AND PARTNERSHIPS

ARCTICNET MEMBER INSTITUTIONS AND CANADIAN PARTNER ORGANIZATIONS

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ÉTABLISSEMENTS MEMBRES ET ORGANISATIONS PARTENAIRES CANADIENNES D'ARCTICNET

Yukon

Yukon College
Yukon Government

Northwest Territories

AANDC - Cumulative Impact Monitoring Program
Environment Canada - Canadian Wildlife Service - Northern Conservation Division
Government of the Northwest Territories
Institute for Circumpolar Health Research
National Defense
Stanton Territorial Health Authority

Inuvialuit

Aklavik Health Centre
Aklavik Health Committee
Aurora Research Institute
Beaufort-Delta Health & Social Services
Fisheries and Oceans Canada - Pacific Region
Fisheries Joint Management Committee
Inuvialuit Joint Secretariat
Inuvialuit Regional Corporation
Moose Kerr School
Olokhaktomiut Hunters and Trappers Committee
Sachs Harbour Hunters and Trappers Committee
Ulukhaktok Community Corporation

Nunavut

AANDC - Nunavut Implementation Fund
Coalition of District Education Authorities of Nunavut
Environment Canada - Canadian Wildlife Service
Government of Nunavut
Hunters & Trappers Association of Qikiqtarjuaq
Iqaluit Community Tukisigiarvik Society
Nunasi Corporation
Nunavut Arctic College
Nunavut Experience Outfitting
Nunavut General Monitoring Plan
Nunavut Tunngavik Incorporated
Nunavut Research Institute
Nunavut Wildlife Management Board
Parks Canada
Qaujigiartiit Health Research Centre

British Columbia

Canadian Scientific Submersible Facility
Fisheries and Oceans Canada - Institute of Ocean Sciences
MDA Corporation
Natural Resources Canada - Geological Survey of Canada
PH&N Investment Counsel
S. and A. Inspiration Foundation
Sitka Scientific
The Axys Group
University of British Columbia
University of Northern British Columbia
University of Victoria
Wildlife Genetics International

Alberta

Alberta Cancer Foundation
Arctic Institute of North America
Arctic Raptors Inc.
Centre for Military and Strategic Studies
Environment Canada - Canadian Wildlife Service
Imperial Oil Limited
University of Alberta
University of Calgary

Saskatchewan

Environment Canada
University of Saskatchewan

Manitoba

Centre for Earth Observation Science
Churchill Northern Studies Centre
Fisheries and Oceans Canada - Freshwater Institute
Manitoba Hydro
University of Manitoba
University of Winnipeg

Ontario

AANDC
- Northern Contaminants Program
- Northern Scientific Training Program
- Environmental Studies Research Fund

Agnico-Eagle Mines
Agriculture and Agri-Food Canada
Ambassade de France au Canada
Association of Canadian Universities for Northern Studies
Baffinland Iron Mines Corporation
Balsillie School of International Affairs
Carleton University
Canadian Cryospheric Information Network
Canadian Museum of Nature
Earth Rangers
Environment Canada
- Canada Centre for Inland Waters
- Canadian Ice Service
- Meteorological Service of Canada
- National Water Research Institute
- Science and Technology Branch

Fisheries and Oceans Canada
- Canadian Coast Guard
- Canadian Hydrographic Service
- Central & Arctic Region
- Integrated Science Data Management
- Species at Risk Act
- Strategic Program for Ecosystem Based Research and Advice

Geosensors Inc.
International Development Research Centre
Inuit Circumpolar Council (Canada)
Inuit Tapiriit Kanatami
JF Boucher Consulting Ltd
McMaster University
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- Canada Centre for Remote Sensing
- Earth Sciences Sector
- Geodetic Survey Division
- Geological Survey of Canada
- Geomatics Canada
- Polar Continental Shelf Program

Nunavut Sivuniksavut
Ontario Ministry of Natural Resources
Pauktuutit
Public Health Agency of Canada
Queen's University
St. Jerome's University
Sensors by Design
Statistics Canada
Wildlife Conservation Society Canada
World Wildlife Fund Canada
The W. Garfield Weston Foundation
Transport Canada
Trent University
University of Guelph
University of Ottawa
University of Toronto
University of Waterloo
University of Western Ontario
University of Windsor
York University

Nunavik

Kativik Regional Government
Kativik School Board
Makivik Corporation
Nayumivik Landholding Corporation
Nunavik Regional Board of Health and Social Services
Nunavik Research Center

Quebec

Aboriginal Affairs and Northern Development Canada
Beaufort Regional Environmental Assessment
Canadian High Arctic Research Station
Canadian Space Agency
Centre d'étude des politiques étrangères et de sécurité
Centre d'études nordiques
Centre de Recherche du Centre hospitalier de l'Université Laval
Concordia University
École nationale d'administration publique
Environment Canada - Canadian Wildlife Service
Fednav Limited
Fondation de l'Université Laval
Hydro-Québec
Institut de recherche en biologie végétale
Institut des sciences de la mer de Rimouski
Institut national de la recherche scientifique
Institut national de santé publique du Québec
Le Fonds de recherche du Québec – Nature et technologies
McGill University
Ministère de l'Économie, de l'Innovation et des Exportations
Ministère de l'Énergie et des Ressources naturelles
Ministère des Affaires municipales et de l'Occupation du territoire
Ministère des Forêts, de la Faune et des Parcs
Ministère des Transports du Québec
Nasivvik Centre for Inuit Health and Changing Environments
Natural Resources Canada - Geological Survey of Canada
Ouranos
Parks Canada
Fisheries and Oceans Canada - Maurice Lamontagne Institute
Québec-Océan
Unité de recherche en santé publique
Université de Montréal
Université de Sherbrooke
Université du Québec à Chicoutimi
Université du Québec à Montréal
Université du Québec à Rimouski
Université du Québec à Trois-Rivières
Université du Québec en Abitibi-Témiscamingue
Université Laval
Wapikoni
Xstrata Nickel - Raglan Mine

New Brunswick

Mount Allison University
University of New Brunswick

Prince Edward Island

Beachwalker Films
University of Prince Edward Island

Nova Scotia

ACENET
Coalition of District Education Authorities (Wolfville)
Dalhousie University
Fisheries and Oceans Canada - Bedford Institute of Oceanography
Natural Resources Canada - Geological Survey of Canada

Nunatsiavut

Kangidluasuk
Nunatsiavut Government
Nunatsiavut Group of Companies
Rigolet Digital Story Telling

Newfoundland and Labrador

Fisheries and Oceans Canada - Science Branch Newfoundland
Food Security Network of Newfoundland and Labrador
Government of Newfoundland and Labrador
Labrador Institute of Memorial University
Memorial University of Newfoundland
Parks Canada - Torngat Mountains National Park Reserve
Research & Development Corporation of Newfoundland and Labrador
Sikumiut Environmental Consulting
Torngat Secretariat

ArcticNet is a truly pan-Canadian network with strong international connections, reflecting the global dimension of Arctic issues. Over 135 ArcticNet researchers and 1000 graduate students, postdoctoral fellows, research associates, and technicians from 29 Canadian universities, and numerous federal, provincial and regional departments and agencies participate meaningfully in the Network. These partners are distributed throughout all Canadian provinces, northern territories and Inuit Land Claim Settlement Regions, covering not only the usual east-west dimension of Canada, but her south-north dimension as well. An increasing number of academic and government-based partners in the United States, Norway, France, Denmark, the UK, Spain, Russia, Japan and Germany provide ArcticNet's international dimension.

PARTNERSHIP WITH INUIT

Since 2004, ArcticNet has engaged Inuit directly at all levels of the planning of the research program and the strategic framework. ArcticNet collaborates closely with Inuit Tapiriit Kanatami (ITK), the Inuit Circumpolar Council (Canada) and all four Regional Inuit Land Claim organizations in developing and conducting its research program and defining its Strategic Plan. Members from all six organizations serve on the Network's Research Management Committee, Board of Directors and Inuit Advisory Committee and through four Inuit Research Advisor (IRA) positions, the Network's researchers can consult with Inuit and northern stakeholders in over 50 remote coastal Arctic communities. As part of the international Arctic Change 2014 conference in Ottawa the IRAs, with their Alaskan counterparts, co-chaired a session entitled *Indigenous Perspectives on Adaptation* with discussions focusing on historical adaptation to environmental, social and cultural changes and the integration of Traditional Knowledge in research. The IRAs also hosted a session as part of Student Day at the conference, to discuss the skills and approaches necessary for conducting research with northern communities.

NATIONAL AND INTERNATIONAL NETWORKING

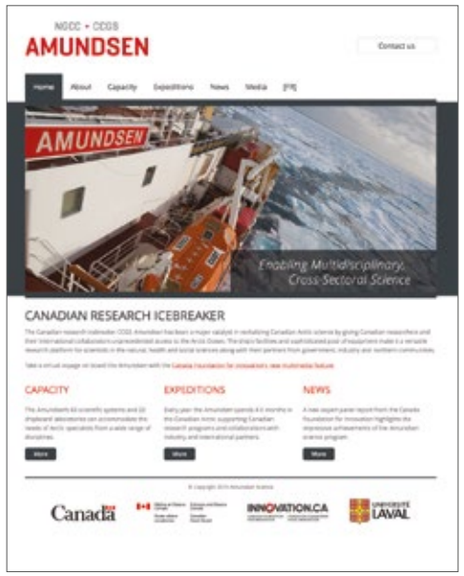
ArcticNet's directors, board members, Research Management Committee members, Inuit Research Advisors and researchers represented the Network at numerous Arctic conferences and events in 2014-2015 including: Transatlantic Science Week in Toronto, the Arctic Circle Assembly in Iceland, the Arctic Futures Symposium in Brussels and the Inuit Circumpolar Council General Assembly in Inuvik. From 22 to 23 September 2014, ArcticNet participated in the *Canada-Norway Northern Innovation Initiative* in Tromsø, where a memorandum of understanding was signed between ArcticNet/Université Laval and the ARCTOS network/The Arctic University of Norway to explore new avenues for cooperation, and for sharing of best practices and northern innovation.

During French President François Hollande's State visit to Canada in November 2014, an agreement was signed between ArcticNet and France's Centre national de la recherche scientifique at the official residence and workplace of the Governor General of Canada in Ottawa to formalize the collaboration between ArcticNet and France for the sharing of Arctic expertise, infrastructure and resources. Scientific Director Louis Fortier along with ArcticNet Network Investigator and Director of Takuvik, Marcel Babin, met with Mr. Hollande and Quebec's Premier in Quebec City to showcase the Canadian-French research collaborations that are continuing to be developed through the Takuvik Joint International Laboratory at Université Laval.

CANADA'S RESEARCH ICEBREAKER

NEW WEBSITE FOR THE CCGS *AMUNDSEN*

www.amundsen.ulaval.ca



The website for the research icebreaker CCGS *Amundsen* was completely redesigned and updated in 2014-2015 to improve the visibility of the infrastructure nationally and internationally and facilitate user access. In addition to the new, responsive web design, the site features detailed 3-D drawings of the *Amundsen*'s laboratories and workspaces, a comprehensive list of scientific equipment available on board, photos of the ship's living spaces, *Amundsen*
"In the News" highlights and a list of recent funding and news announcements. The new site is a valuable tool and information resource for ArcticNet's members, as well as all research users from the academic, government and private sectors.

MAJOR SCIENCE INITIATIVES SPECIAL COMPETITION

In December 2014, ArcticNet's principal marine research infrastructure, the CCGS *Amundsen*, received the wonderful news that its proposal to the Canada Foundation for Innovation (CFI) Major Science Initiatives Special Competition was funded at 100 % of the level requested. On 23 January 2015, Minister of State (Science and Technology), Ed Holder, made the official announcement at a press conference in Quebec City in the presence of the CFI, the Rector of Université Laval, representatives from the Canadian Coast Guard, and members of the *Amundsen* and ArcticNet teams. The *Amundsen* received the full $7.5M requested from the CFI for operations and maintenance over three years, the largest amount awarded under the competition. This new funding will allow the ship to maximize its days at sea conducting high-calibre research in the Canadian Arctic with ArcticNet and other national academic research programs.

PLATFORM OUTCOME MEASUREMENT STUDY

In 2014, the *Amundsen* was asked to participate in a Platform Outcome Measurement Study (POMS) aimed at assessing the outcomes and impacts of national and regional research platforms that have received funding under the CFI. The POMS report, summarizing the *Amundsen*'s achievements over its first 10 years of operation, was submitted to the CFI in October 2014, and was followed by a site visit that took place on 11 and 12 November in Quebec City. The visit was led by the CFI's Expert Panel of four national and international specialists and was attended by five CFI representatives and 14 external observers as well as the *Amundsen* team led by *Amundsen* Project Leader and Scientific Director of ArcticNet, Louis Fortier. The final assessment report produced by the Expert Panel was extremely positive, highlighting the *Amundsen*'s scientific and technical capabilities; its role in revolutionizing Arctic science; its capacity to conduct internationally competitive, cross-disciplinary, cross-sector research; its engagement of end-uses; and its contribution to training a new generation of Arctic scientists. The Expert Panel report was published on the CFI's website along with a multimedia feature allowing users to virtually tour the ship and explore its research capacity.

"The *Amundsen* fully qualifies as a national facility, supported by its uniqueness, mandate, capacity and contribution to advancing science in Canada and internationally. It addresses leading-edge scientific problems of significance, scope and complexity and generates new knowledge and manifold benefits for Canada and Canadians."

- Expert Panel Report – Platform Outcome Measurement Study – *Amundsen*, November 2014

ARCTIC CHANGE 2014

1300+
Conference participants from 23 countries

430+
Oral presentations

375+
Scientific posters

30+
Workshops and side events

Building on the success of its annual scientific meeting, ArcticNet and its national and international partners hosted the international Arctic Change 2014 conference from 8 to 12 December at the Shaw Centre in Ottawa. With over 1300 participants from 23 countries attending, Arctic Change 2014 proved to be a dynamic international networking event, providing an excellent opportunity for Arctic researchers, post-doctoral fellows, graduate students, northern community representatives, government and industry to meet face to face to address the numerous environmental, social, economical and political challenges and opportunities that are emerging from climate change and modernization in the Arctic.

More than 430 oral presentations and 375 scientific posters from all fields of Arctic research were presented, and 30 workshops and side events were held in conjunction with the conference, making it one of the largest trans-sectoral international Arctic research conferences ever held in Canada.

As evidence of a promising future for Arctic research, 635 graduate students, post-doctoral fellows, researchers and stakeholders attended the ninth ArcticNet Student Day, with 10 students awarded prizes for the excellence of their posters and research. In addition, the first ever Inuit Recognition Award was presented at the conference to Joey Angnatok, from Nain, Nunatsiavut, recognizing the critical importance of Inuit involvement in Arctic research.

ARCTIC INSPIRATION PRIZE

www.arcticinspirationprize.ca

The $1 million CAD Arctic Inspiration Prize is awarded annually to recognize and promote the extraordinary contribution made by teams in the gathering of Arctic knowledge and their plans to implement this knowledge into real world applications for the benefit of the Canadian Arctic, Arctic Peoples and therefore Canada as a whole. The initiative is made possible through the generous endowment of the S. and A. Inspiration Foundation, the commitment of ArcticNet to voluntarily manage the prize, as well as the contribution of numerous volunteers and partners.

The third Arctic Inspiration Prize Awards Ceremony was held in December at the international Arctic Change 2014 conference in Ottawa. The ceremony was hosted by Selection Committee member, Peter Mansbridge, and featured a performance by award winning northern artists Tanya Tagaq, Celina Kalluk, Sylvia Cloutier, Digawolf and David Serkoak presented in collaboration with the National Arts Centre. For the first time, the $1 million prize was awarded to a single team for their extraordinary knowledge to action plan. Working with an exceptional team of youth, Elders, educators, community-based researchers, and artists, the community-based participatory action research project, FOXY (Fostering Open eXpression among Youth), received $1 million for their plan to acknowledge and address the complex determinants of sexual health through a program that is relevant and accessible to northern youth of all genders, in all three territories. Through school-based workshops, Peer Leadership Retreats, a community-based participatory action research plan, and knowledge dissemination activities, FOXY will use the prize money to work with young women and men across the North to facilitate dialogue about sexual health issues, develop leadership and coping skills, and build greater self-confidence for making healthy life choices.

AWARDS AND RECOGNITIONS

LOUIS FORTIER: GOVERNOR GENERAL'S NORTHERN MEDAL

ArcticNet's Scientific Director, Louis Fortier, received the Governor General's Northern Medal at a presentation ceremony at the official residence of the governor general at the Citadelle of Québec on 3 October, 2014, for his achievements in helping Canadians to better understand the impacts of climate change and modernization in the Arctic. Created in 2005 by the Right Honourable Adrienne Clarkson, the Governor General's Northern Medal was a medallion awarded annually to citizens whose actions and achievements contributed to the evolution and constant reaffirmation of the Canadian North as part of our national identity. The program was replaced by the Polar Medal program in 2015.

"By bridging scholars, decision makers, community builders and residents, Mr. Fortier unremittingly works towards understanding and guiding the new Canadian Arctic."

- Office of the Secretary to the Governor General

ARCTICNET COMMUNITY

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LA COMMUNAUTÉ ARCTICNET

ARCTICNET COMMUNITY
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President, Inuit Circumpolar Council (Canada)

Terry Audla,
President, Inuit Tapiriit Kanatami

Yves Bégin,
Director, Institut national de la recherche scientifique

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Scientific Director and CEO, ArcticNet Inc.

Martin Fortier,
Executive Director and COO, ArcticNet Inc. *(non-voting)*

Brian Gray,
Assistant Deputy Minister, Agriculture and Agri-Food Canada

Digvir Jayas,
Vice-President (Research and International), University of Manitoba

Janet King,
Assistant Deputy Minister, Aboriginal Affairs and Northern Development Canada (until July 2014)

Charles Lin,
Director General, Environment Canada

Richard Marceau,
Vice-President (Research), Memorial University of Newfoundland

Denis Mayrand,
Deputy Vice Rector, Research and Innovation, Université Laval

Natan Obed,
Director, Nunavut Tunngavik Inc.

Tom Paddon,
President & CEO, Baffinland Iron Mines Corporation

Tom Paterson,
Vice-President, Fednav Limited

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Vice Rector, Research, Creation and Innovation, Université de Montréal

David J. Thomas,
President and Chairman, The Axys Group

Brigit Viens,
Senior Program Manager, Networks of Centres of Excellence *(Observer)*

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CONSEIL EXÉCUTIF

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David J. Thomas, President and Chairman, The Axys Group

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ArcticNet Community / ᐅᑭᐅᖅᑕᖅᑐᒥᒃ ᑐᑭᓯᓂᐊᖅᑎᒌᑦ ᓄᓇᓕᖕᒋᑦ / La Communauté ArcticNet

AUDIT AND FINANCE COMMITTEE
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Celina Campbell,
Program Manager & Sub-Division Head, Earth Sciences Sector, Geological Survey of Canada, Natural Resources Canada

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Director, Inuit Tapiriit Kanatami

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Chief Scientist, Canadian High Arctic Research Station

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COMITÉ CONSULTATIF INUIT

Andrew Dunford (Chair),
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Romani Makkik,
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Pitseolalaq Moss-Davies,
Research Coordinator, Inuit Circumpolar Council (Canada)

Shannon O'Hara,
Inuit Research Advisor, Inuvialuit Settlement Region

Betsy Palliser,
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Carla Pamak,
Inuit Research Advisor, Nunatsiavut

Tom Sheldon,
Director, Environment Division, Department of Lands and Natural Resources, Nunatsiavut Government

Kendra Tagoona,
ArcticNet Coordinator for Inuit Tapiriit Kanatami

INUIT - ARCTICNET PARTNERSHIP COMMITTEE
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Martin Fortier,
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Assistant Deputy Minister, Aboriginal Affairs and Northern Development Canada (until July 2014)

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Assistant Deputy Minister, Agriculture and Agri-Food Canada

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Tom Paterson,
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President, Inuit Circumpolar Council (Canada)

2014-2015
ArcticNet Community / ᐅᑭᐅᖅᑕᖅᑐᒥᒃ ᑐᑭᓯᓂᐊᖅᑎᒌᑦ ᓄᓇᓕᖕᒋᑦ / La Communauté ArcticNet

OFFICERS AND ADMINISTRATIVE STAFF
ᐃᖅᑲᓇᐃᔭᖅᑎᑦ ᐊᒻᒪᓗ ᐊᓪᓚᒃᕕᓕᕆᔨᑦ
DIRECTEURS ET PERSONNEL ADMINISTRATIF

Katie Blasco,
Communications Officer

Réal Choquette,
Administrative Director

Christine Demers,
Executive Assistant

Natalie Desmarais,
Finance Coordinator and Treasurer

Louis Fortier,
Scientific Director and CEO

Martin Fortier,
Executive Director and COO

Colline Gombault,
Administrative and Data Coordinator

Keith Levesque,
Marine Research Manager

Thomas Linkowski,
Ocean Instrumentation Professional

Shawn Meredyk,
Mooring Instrumentation Professional

Luc Michaud,
Scientific Equipment Manager

Simon Morisset,
Ocean Instrumentation Professional

Sylvain Tougas,
Website Developer

IRIS COORDINATORS
ᑲᑎᓯᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᓂᐅᔪᓂᒃ ᐊᒃᑐᐃᓂᖅᓂᒃ ᖃᐅᔨᓴᖅᓂᖅᒥᒃ ᑲᒪᔩᑦ
COORDONNATEURS IRIS

Mickaël Lemay,
IRIS Lead Coordinator & IRIS 4 - Eastern Subarctic

Tanya Brown,
IRIS 2 - Eastern High Arctic

Lauren Candlish,
IRIS 3 - Hudson Bay

Ashley Gaden,
IRIS 1 - Western and Central Arctic

INUIT RESEARCH ADVISORS
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COORDONNATEURS DE RECHERCHE INUITS

Romani Makkik,
Nunavut

Shannon O'Hara,
Inuvialuit

Betsy Palliser,
Nunavik

Carla Pamak,
Nunatsiavut

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Rudy Riedlsperger (Memorial University of Newfoundland), English Communications Officer

Robyn Edgar (Université Laval), Student Day Coordinator

Kate Snow (Fisheries and Oceans Canada – Freshwater Institute), Inuit / Northerner Communications Officer

Heather Stark (University of Manitoba), Education & Outreach Coordinator

Ashley Stasko (University of Waterloo), Secretary

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COMITÉ EXÉCUTIF DE L'ASSOCIATION ÉTUDIANTE D'ARCTICNET

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Helmuth Thomas

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Stéphane Roussel

Institut national de la recherche scientifique – Eau, Terre et Environnement

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Université du Québec à Trois-Rivières

Esther Lévesque

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Pierre Ayotte
Marcel Babin
Kristin Bartenstein
Steeve Côté
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Patrick Lajeunesse
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Frédéric Laugrand
Maurice Levasseur
Connie Lovejoy
Michel Lucas
André Marette
Reinhard Pienitz
Mylène Riva
Thierry Rodon
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Jean-Pierre Tremblay
Warwick Vincent

University of Alberta

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Safwat Girgis
Karen Goodman
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Sander Veldhuyzen van Zanten
Yutaka Yasui

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University of Calgary

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Edward McCauley
John Yackel

University of Guelph

Benjamin Bradshaw
Derek Muir
Barry Smit

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Fikret Berkes
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Zou Zou Kuzyk
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Tim Papakyriakou
Simon Prinsenberg
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University of Toronto

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Ellsworth LeDrew
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University of Winnipeg

Samantha Arnold

York University

Kathy Young

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PARTENAIRES D'ARCTICNET

FEDERAL DEPARTMENTS AND AGENCIES
ᒐᕙᒪᑐᖃᒃᑯᑦ ᐱᓕᕆᕐᕕᖏᑦ ᑭᒡᒐᖅᑐᕐᕕᖏᓪᓗ
MINISTÈRES ET ORGANISMES FÉDÉRAUX

Aboriginal Affairs and Northern Development Canada (AANDC)

AANDC - Gatineau
Beaufort Regional Environmental Assessment
Cumulative Impact Monitoring Program
Environmental Studies Research Fund
Northern Contaminants Program
Northern Scientific Training Program
Nunavut Implementation Fund

Agriculture and Agri-Food Canada

Canadian High Arctic Research Station

Canadian Polar Commission

Canadian Space Agency

Environment Canada

Canada Centre for Inland Waters
Canadian Ice Service
Canadian Wildlife Service - Northern Conservation Division
Canadian Wildlife Service - Nunavut
Canadian Wildlife Service - Prairie and Northern Region
Canadian Wildlife Service - Quebec Region
Environment Canada–Downsview
Environment Canada – Saskatoon
Meteorological Service of Canada
National Water Research Institute
Science and Technology Branch

Fisheries and Oceans Canada

Bedford Institute of Oceanography
Canadian Coast Guard
Canadian Hydrographic Service
Central & Arctic Region
Fisheries and Oceans Canada - Ottawa
Freshwater Institute
Institute of Ocean Sciences
Integrated Science Data Management
Maurice Lamontagne Institute
Pacific Region
Science Branch Newfoundland
Species at Risk Act
Strategic Program for Ecosystem Based Research and Advice

National Defense

Natural Resources Canada (NRCan)

Canada Centre for Remote Sensing
Earth Sciences Sector
Geodetic Survey Division
Geological Survey of Canada
Geological Survey of Canada (Atlantic)
Geological Survey of Canada (Pacific)
Geological Survey of Canada (Quebec)
Geomatics Canada
NRCan - Ottawa
Polar Continental Shelf Program

Parks Canada

Nunavut Field Unit
Parks Canada National Office
Torngat Mountains National Park Reserve

Public Health Agency of Canada

Statistics Canada

Transport Canada

PROVINCIAL DEPARTMENTS AND AGENCIES
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MINISTÈRES ET ORGANISMES PROVINCIAUX

Government of Newfoundland and Labrador
Government of Nunavut
Government of the Northwest Territories
Institut national de santé publique du Québec
Le Fonds de recherche du Québec – Nature et technologies
Ministère de l'Économie, de l'Innovation et des Exportations
Ministère de l'Énergie et des Ressources naturelles
Ministère des Affaires municipales et de l'Occupation du territoire
Ministère des Forêts, de la Faune et des Parcs
Ministère des Transports du Québec
Ontario Ministry of Natural Resources
Research & Development Corporation of Newfoundland and Labrador
Yukon Government

NATIONAL AND INTERNATIONAL INUIT ORGANIZATIONS
ᑲᓇᑕᒥ ᓄᓇᕐᔪᐊᕐᒥᓗ ᐃᓄᐃᑦ ᑎᒥᖕᒋᑦ
ORGANISATIONS INUITES NATIONALES ET INTERNATIONALES

Inuit Circumpolar Council (Canada)
Inuit Tapiriit Kanatami

REGIONAL ORGANIZATIONS, AGENCIES AND GOVERNMENTS
ᐊᕙᑦᑐᖅᓯᒪᔪᓂᒃ ᑎᒥᐅᔪᑦ, ᑭᒡᒐᖅᑐᕐᕖᑦ ᒐᕙᒪᐅᔪᓪᓗ
GOUVERNEMENTS, AGENCES ET ORGANISATIONS RÉGIONALES

Inuvialuit Settlement Region:

Inuvialuit Joint Secretariat
Inuvialuit Regional Corporation
Fisheries Joint Management Committee

Nunatsiavut:

Nunatsiavut Government

Nunavik:

Kativik Regional Government
Kativik School Board
Makivik Corporation
Nunavik Regional Board of Health and Social Services

Nunavut:

Nunavut Tunngavik Incorporated
Nunavut Wildlife Management Board

2014-2015
ArcticNet Community / ᐅᑭᐅᖅᑕᖅᑐᒥᒃ ᑐᑭᓯᓂᐊᖅᑲᑎᒌᑦ ᓄᓇᓕᖕᒋᑦ / La Communauté ArcticNet

NORTHERN COMMUNITIES
ᐅᑭᐅᖅᑕᖅᑐᕐᒥᑦ ᓄᓇᓖᑦ
COMMUNAUTÉS NORDIQUES

Aklavik, NT
Akulivik, QC
Arviat, NU
Aupaluk, QC
Ausuittuq, NU (Grise Fjord)
Churchill, MB
Iglulik, NU (Igloolik)
Ikaahuk, NT (Sachs Harbour)
Ikpiarjuk, NU (Arctic Bay)
Inujjuaq, QC
Inuvik, NT
Iqaluit, NU
Iqaluktuttiaq, NU (Cambridge Bay)
Ivujivik, QC
Kangiqliniq, NU (Rankin Inlet)
Kangiqsualujjuaq, QC
Kangiqsuk, QC
Kangiqtugaapik, NU (Clyde River)
Kangirsujuaq, QC
Kikiak, NL (Rigolet)
Kugluktuk, NU
Kuugaarjuk, NU
Kuujjuaq, QC
Kuujjuaraapik, QC
Marruuvik, NL (Makkovik)
Mittimatalik, NU (Pond Inlet)
Naujaat, NU (Repulse Bay)
Nunainguk, NL (Nain)
Panniqtuuq, NU (Pangnirtung)
Puvirnituq, QC
Qamani'tuaq, NU (Baker Lake)
Qausuittuq, NU (Resolute Bay)
Qikiqtarjuaq, NU
Quaqtaq, QC
Salliq, NU (Coral Harbour)
Salluit, QC
Sanikiluaq, NU
Tasiujaq, QC
Tuktoyaktuk, NT
Ulukhaktok, NT (Holman)
Umiujaq, QC
Uqsuqtuuq, NU (Gjoa Haven)

INDUSTRY
ᑮᓇᐅᔾᔭᒃᓴᖅᑐᓕᕆᔨᑦ
INDUSTRIES

Agnico-Eagle Mines
Baffinland Iron Mines Corporation
Beachwalker Films
Fednav Limited
Geosensors Inc.
Hydro-Québec
Imperial Oil Limited
International Association of Oil & Gas Producers
JF Boucher Consulting Ltd
Manitoba Hydro
MDA Corporation
PH&N Investment Counsel
Sensors by Design
Sikumiut Environmental Consulting
Sitka Scientific
Sovereign Geographic Inc.
The Axys Group
Wildlife Genetics International
Xstrata Nickel - Raglan Mine

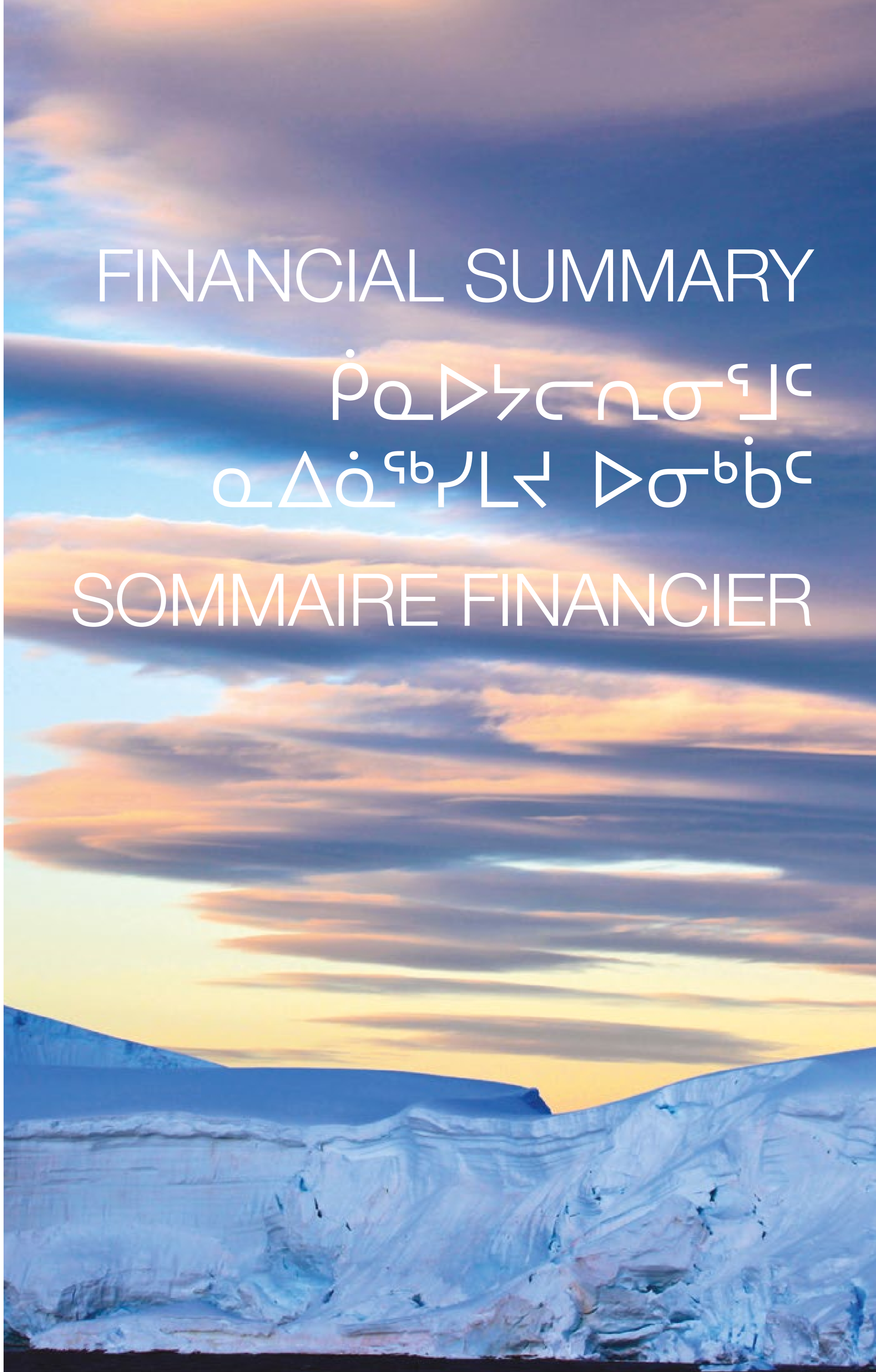
UNIVERSITIES AND INSTITUTES
ᓯᓚᑦᑐᖅᓴᕐᕕᒡᔪᐃᑦ ᑎᒥᐅᔪᓪᓗ
UNIVERSITÉS ET INSTITUTS

Aarhus University
Alfred Wegener Institute Foundation for Polar and Marine Research
Arctic and Antarctic Research Institute
Arctic Institute of North America
Aurora Research Institute
Australian National University
Balsillie School of International Affairs
Carleton University
Centre d'études nordiques
Centre de recherche du Centre hospitalier de l'Université Laval
Centre for Earth Observation Science
Centre for Military and Strategic Studies
Centre national de la recherche scientifique
Columbia University - Lamont-Doherty Earth Observatory
Concordia University
Cornell University
Courant Institute of Mathematical Sciences
Dalhousie University
Duke University
Durham University
École nationale d'administration publique
GIPSA-Lab
Harvard University
Institut de recherche en biologie végétale
Institut des sciences de la mer de Rimouski
Institut national de la recherche scientifique
Institute for Circumpolar Health Research
Labrador Institute of Memorial University
McGill University
McMaster University
Memorial University of Newfoundland
Mount Allison University
Nasivvik Centre for Inuit Health and Changing Environments
Norwegian School of Veterinary Science
Oregon State University
Québec-Océan
Queen's University
Royal Netherlands Institute for Sea Research
St. Jerome's University
Stanford University
Trent University
Université catholique de Louvain
Université de Lausanne
Université de Liège
Université de Montréal
Université de Sherbrooke
Université du Québec à Chicoutimi
Université du Québec à Montréal
Université du Québec à Rimouski
Université du Québec à Trois-Rivières
Université du Québec en Abitibi-Témiscamingue
Université Laval
University of Aberdeen

University of Alaska Anchorage
University of Alaska Fairbanks
University of Alberta
University of British Columbia
University of Calgary
University of Cambridge
University of Connecticut
University of Denver
University of Guelph
University of Hamburg
University of Iceland
University of Kiel
University of Lisbon
University of Lomonosov Moscow
University of Manitoba
University of Munich
University of New Brunswick
University of Northern British Columbia
University of Oslo
University of Ottawa
University of Oulu
University of Plymouth
University of Prince Edward Island
University of Saskatchewan
University of Sheffield
University of Southampton
University of Southern Denmark
University of Toronto
University of Victoria
University of Warwick
University of Washington
University of Waterloo
University of Western Ontario
University of Windsor
University of Winnipeg
Woods Hole Oceanographic Institute
York University

OTHER / ᐊᓯᖏᑦ / AUTRES

- ACENET (Dalhousie University)
- Aklavik Health Centre
- Aklavik Health Committee
- Alaska National Park Service
- Alberta Cancer Foundation
- Ambassade de France au Canada
- Arctic Raptors Inc.
- Association of Canadian Universities for Northern Studies
- BBPolar
- Beaufort-Delta Health & Social Services
- Canadian Cryospheric Information Network
- Canadian Museum of Nature
- Canadian Scientific Submersible Facility
- Centre d'étude des politiques étrangères et de sécurité
- Churchill Northern Studies Centre
- Coalition of District Education Authorities (Wolfville)
- Coalition of District Education Authorities of Nunavut
- Earth Rangers
- East Iceland Natural History Institute
- Embassy of the Russian Federation in the Netherlands
- European Space Agency
- Extreme North Agricultural Research Institute
- Fondation de l'Université Laval
- Food Security Network of Newfoundland and Labrador
- Foreign Ministry of Denmark
- Geological Survey of Denmark and Greenland
- Greenland Institute of Natural Resources
- Hunters & Trappers Association of Qikiqtarjuaq
- International Development Research Centre
- Iqaluit Community Tukisigiarvik Society
- JAMSTEC
- Kangidluasuk
- Manomet Center for Conservation Sciences
- Ministry of Foreign Affairs, Faroe Islands
- Moose Kerr School
- Musée du Léman
- National Institute of Public Health – Denmark
- National Museum of Natural History of France
- Nayumivik Landholding Corporation
- Norway House Cree Nation
- Norwegian Water Resources and Energy
- Nunasi Corporation
- Nunatsiavut Group of Companies
- Nunavik Research Centre
- Nunavut Arctic College
- Nunavut Experience Outfitting
- Nunavut General Monitoring Plan
- Nunavut Research Institute
- Nunavut Sivuniksavut
- Olokhaktomiut Hunters and Trappers Committee
- Ouranos
- Pauktuutit
- Qaujigiartiit Health Research Centre
- Quark Expeditions
- Research Organization of Information and Systems
- Rigolet Digital Story Telling
- Russian Academy of Sciences
- S. and A. Inspiration Foundation
- Sachs Harbour Hunters and Trappers Committee
- Stanton Territorial Health Authority
- Stefansson Arctic Institute
- The James Hutton Institute
- The Pew Charitable Trusts
- The W. Garfield Weston Foundation
- Torngat Secretariat
- Ulukhaktok Community Corporation
- Unité de recherche en santé publique
- Wildlife Conservation Society Canada
- World Wildlife Fund Canada
- Yukon College



FINANCIAL SUMMARY

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SOMMAIRE FINANCIER

ArcticNet was audited in June 2015 in accordance with generally accepted Canadian auditing standards. The following figures and financial summary are prepared from the unqualified financial statements.

ArcticNet a été vérifié en juin 2015 selon les normes de vérification généralement reconnues du Canada. Les données financières suivantes sont extraites des rapports financiers produits sans restriction.

Revenues, expenses and net assets / Revenus, dépenses et actif net

For the fiscal year ending 31 March 2015 / Pour l'année fiscale se terminant le 31 mars 2015.

Revenues / Revenus	
Networks of Centres of Excellence Grant / Subvention des réseaux de centres d'excellence	9,619,000
Network partner contributions / Contributions des partenaires du réseau	3,055,454
Arctic Inspiration Prize / Prix Inspiration Arctique	1,090,000
Others / Autres	477,239
Total revenues / Revenus totaux	**$14,241,693**
Expenses / Dépenses	
Research Projects (NCE) / Projets de recherche (RCE)	4,074,242
Research Projects (Non-NCE) / Projets de recherche (Non-RCE)	564,620
Core infrastructure (NCE) / Infrastructure majeure (RCE)	3,466,334
Core infrastructure – (Non-NCE) / Infrastructure majeure – (Non-RCE)	1,356,160
Amortization of equipment / Amortissement équipement	384,601
Arctic Inspiration Prize / Prix Inspiration Arctique	1,134,327
Administrative Centre / Centre administratif	2,530,409
Total expenses / Dépenses totales	**$13,510,693**

Excess (deficiency) of revenues over expenses **Excédent (déficit) des revenus sur les dépenses**	**$731,000**
Net assets, beginning of year / Actifs net, début de l'exercice	3,558,435
Net assets, end of year / Actifs net, fin de l'exercice	**$4,289,435**

Balance Sheet as of 31 March 2015 / Bilan au 31 mars 2015

ASSETS / ACTIF	
Cash / Encaisse	4,809,078
Accounts receivable / Comptes à recevoir	303,701
Prepaid expenses / Frais payés d'avance	1,014,743
Total Current Assets / Total actif à court terme	**$6,127,522**
Capital assets / Immobilisations	1,160,530
Total Assets / Total actif	**$7,288,052**
LIABILITIES / PASSIF	
Accounts payable and accrued liabilities / Comptes à payer et frais courus	462,164
Deferred grants / Apports reportés	2,536,456
	$2,998,620
NET ASSETS / ACTIF NET	
Invested in capital assets / Investi en immobilisations	35,139
Unrestricted Assets / Actif non affecté	4,254,293
Total Liabilities and Net Assets / Total passif et actif net	**$7,288,052**

Statement of cash and in-kind contributions 2014-2015/ Sommaire des contributions en espèces et en nature 2014-2015

	Cash / En espèces	In-kind / En nature	Total
NCE / RCE	9,619,000	0	9,619,000
Non-NCE[1] / Non-RCE[1]			
Provincial / Provinciales	322,000	110,000	432,000
Federal[2] / Fédérales[2]	3,060,000	5,454,000	8,514,000
University / Universitaires	631,000	7,121,000	7,752,000
Industry / Industrielles	545,000	86,000	631,000
Others / Autres	3,005,000	546,000	3,551,000
Non-NCE / Non-RCE	7,563,000	13,317,000	20,880,000
Total NCE and non-NCE **Total RCE et non-RCE**	**$17,182,000**	**$13,317,000**	**$30,499,000**

1 Certain funds contributed by Network Partners to support research projects are forwarded directly to researchers and are not managed by the ArcticNet Administrative Centre / Certaines contributions des partenaires du réseau aux projets de recherche parviennent directement aux chercheurs et ne sont pas gérées par le centre administratif d'ArcticNet.

2 These federal contributions do not include contributions received from the Federal granting councils, the Canada Foundation for Innovation and Genome Canada. / Ces contributions fédérales n'incluent pas les contributions des conseils de recherche, de la fondation canadienne pour l'innovation et de Génôme Canada.

This report is available in English, French and Inuktitut
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Ce rapport est disponible en anglais, en français et en inuktitut

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Maurice Li : page 56
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