

ArcticNet

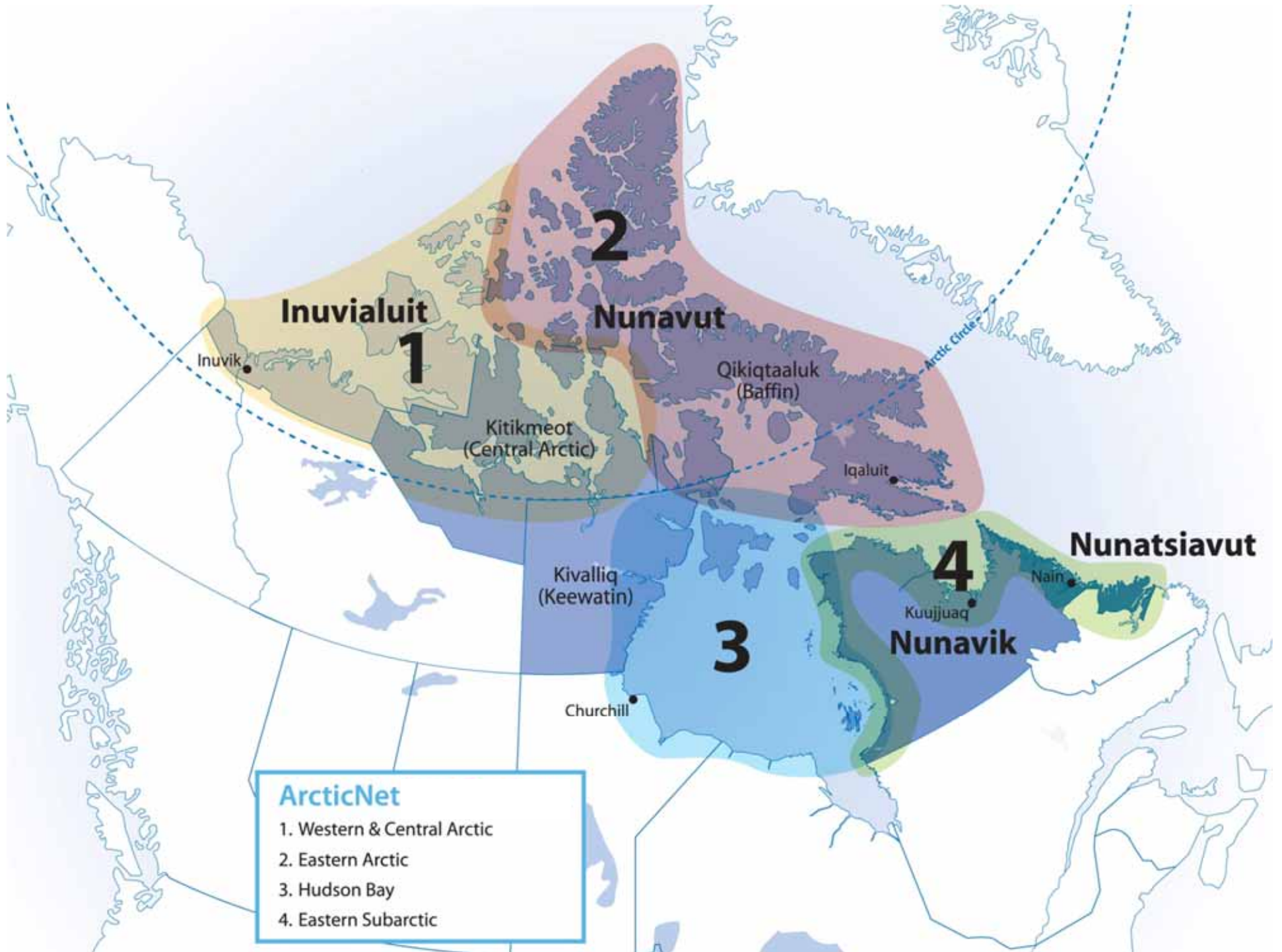
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- 145 ArcticNet researchers and 580 graduate students, postdoctoral fellows, research associates and technicians from 30 Canadian universities
- 8 federal and 11 provincial departments and agencies
- 40 research projects with over 100 partner organizations from 15 countries

Canada





Resource Management

Terrestrial Wildlife Management

Effects of climate change on Arctic wildlife



Dominique Berteaux

- Detect change in wildlife distribution/abundance through monitoring
- Better understand the structure and functioning of food webs
- Model the effects of climate on wildlife patterns

ArcticNet in the Eastern Arctic

Greg Henry

Impacts of **vegetation change** in the Arctic

Scott Lamoureux

Impacts of climate change on **rivers and lakes**

Tim Papakyriakou

Effects of Climate Change on **Carbon Exchange Dynamics** in the Arctic

Michael Power

Factors affecting **Arctic Charr** in Eastern Canada

Warwick Vincent

Assessment of future changes in the Eastern Arctic **freshwater ecosystems**

Resource Management

Marine Wildlife Management

Impacts of Global Warming on Arctic marine mammals



Steven Ferguson

- Study the effects of climate warming on Arctic marine mammals
- Develop adaptive management programs as marine mammal abundance and distribution change in a warming Arctic

ArcticNet in the Eastern Arctic

Terry Dick

Monitoring the **marine environment** in the Arctic

Philippe Archambault

Impact of climate change on the life of the **Arctic Ocean floor**

Paul Myers

Past and present **changes in climate** in the Arctic

Yves Gratton

Monitoring changes of the Canadian **Arctic Ocean**

Jean-Eric Tremblay and Michel Gosselin

Impacts of climate change for the **marine Arctic**

Socio-Economic Development

Arctic Access

The Canadian Arctic Seabed: Navigation and Resource Mapping



John Hughes Clarke

- Improve safety of navigation
- Quantify the spatial extent and risks for seabed geological hazards
- Better understand coastal seabed habitats at community level

Socio-Economic Development

Mining

Industrial development and Arctic communities



Arn Keeling

- Explore past and present examples of development-induced change
- Understand the issues at stake for communities facing development
- Identify indicators of environmental and social vulnerability and adaptation associated with industrial development

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Socio-Economic
Development

Michael Byers

The law and politics of Canadian jurisdiction over Arctic Ocean seabed

Gerard Duhaime

Integrated analysis of **human development** in the Canadian Arctic

Frederic Lasserre

Climate change and **commercial shipping** development in the Arctic

Culture and Lifestyle

Sovereignty and Security

The emerging Arctic security environment



Rob Huebert

- What is Arctic security?
- What should policy makers anticipate that the circumpolar world will look like in the future?
- What are the forces that are now transforming this region?
- How do we measure the processes of conflict and cooperation?

ArcticNet in the Eastern Arctic

Culture and
Lifestyle

Thierry Rodon

Improving access to **university education** in the Canadian Arctic

Barry Smit

Community adaptation in a Changing Arctic

Fiona Walton

Inuit Social Values and the Transformation of **High School Education**

Public Health and Safety

Safety in Transportation

Arctic Sea Ice



David Barber

- Information about sea ice extent, type, and trends
- Impacts on access to resources, extraction and transportation

Public Health and Safety

Safe and Sustainable Communities

Instability of coastal landscapes in Arctic communities and regions



Trevor Bell and Don Forbes

- Map hazards and planning constraints on community lands
- Identify potential threats to existing infrastructure
- Inform climate change adaptation planning in communities

ArcticNet in the Eastern High Arctic

Public Health and Safety

Michel Allard

Permafrost and climate change: impacts and adaptations for communities

Eric Dewailly

Impacts of climate change on the **health and well-being of Inuit**

Laurie Chan

Climate change impacts on traditional **food security** in Inuit communities

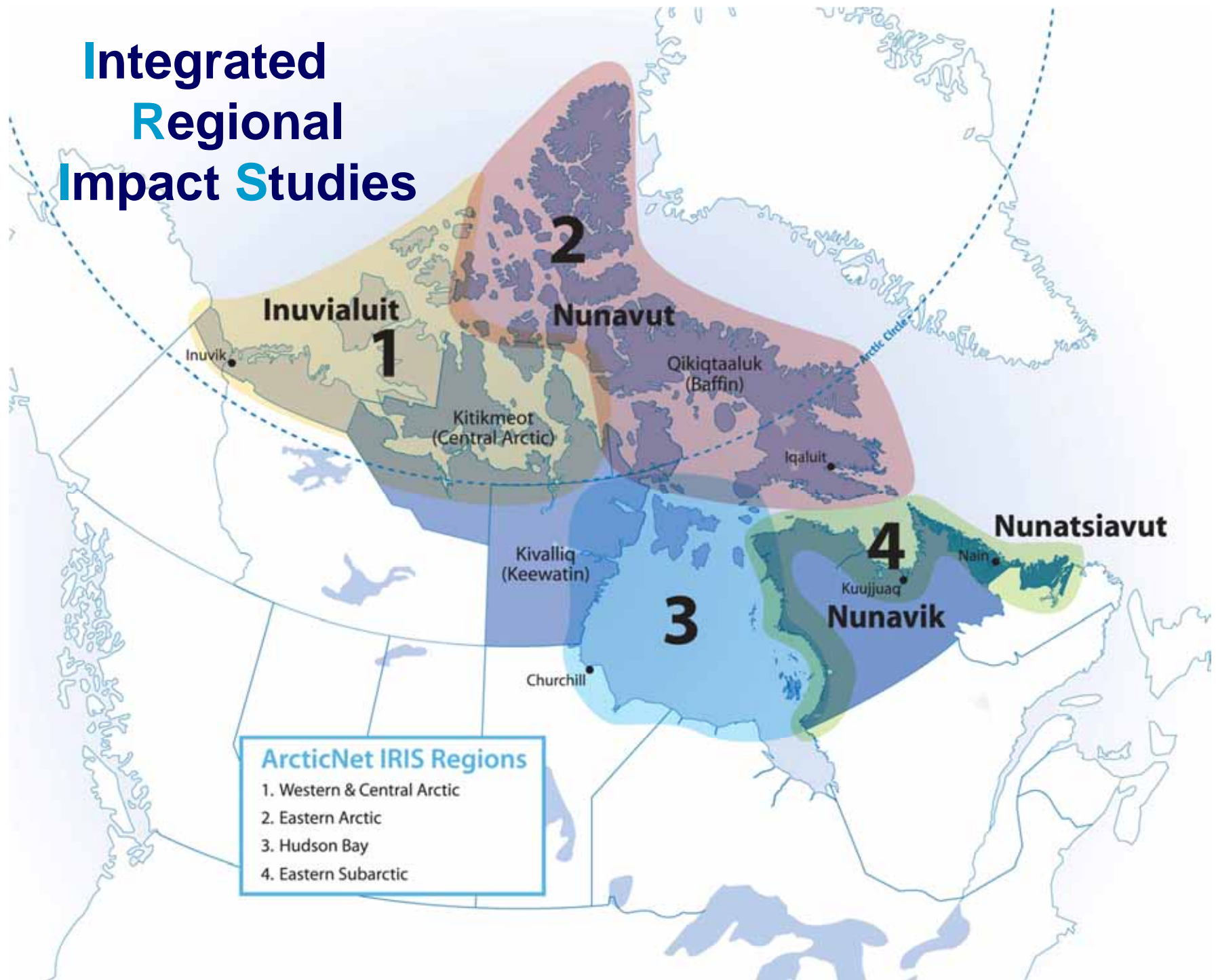
James Ford

Climate change and **food security** in regional Inuit centers

Gary Stern

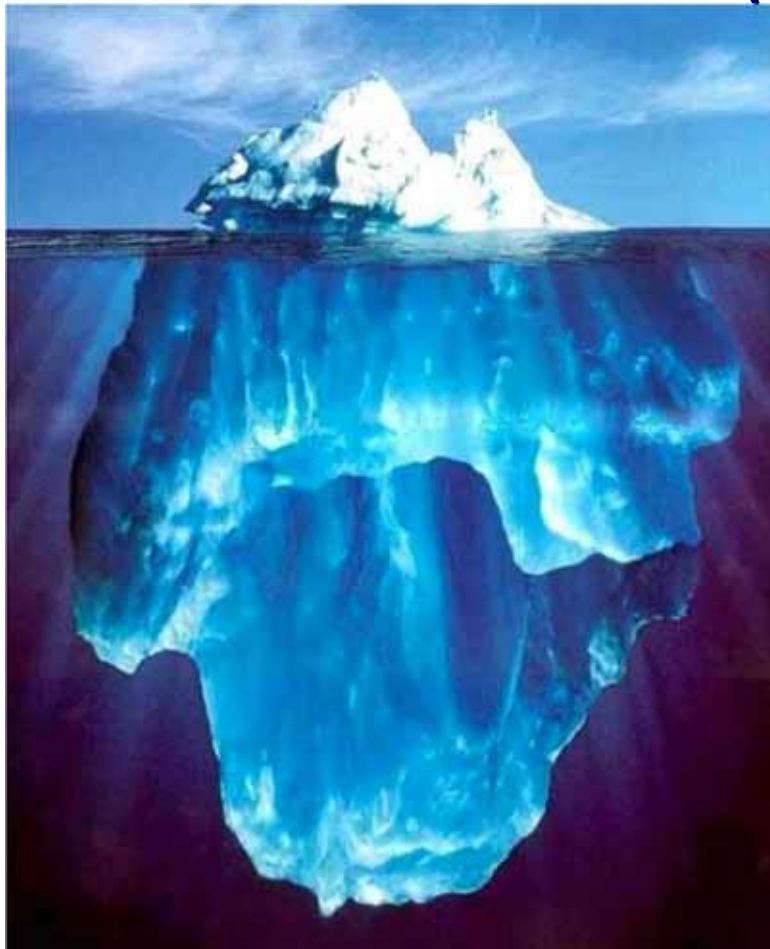
Effect of climate change on **carbon and contaminant cycling** in the Arctic

Integrated Regional Impact Studies





Integrated Regional Impact Studies (IRIS)



Knowledge translation for
policy development and
adaptation strategies

Knowledge creation by
ArcticNet investigators
in the natural, health &
social sciences

Eastern Arctic IRIS

IRIS-2 Objectives

- To make ArcticNet scientists and their knowledge well known to policy/decision makers in the region
- To make regional policy/decision makers and their knowledge needs well known to ArcticNet
- To address knowledge-needs of policy/decision makers by identifying and organizing available ArcticNet (and other) science around regional issues

www.Arcticnet.ulaval.ca

ArcticNet
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Welcome!

ArcticNet is a [Network of Centres of Excellence of Canada](#) that brings together scientists and managers in the natural, human health and social sciences with their partners from Inuit organizations, northern communities, federal and provincial agencies and the private sector to study the impacts of climate change in the coastal Canadian Arctic. Over 145 ArcticNet researchers from 30 Canadian Universities, 8 federal and 11 provincial agencies and departments collaborate with research teams in Denmark, Finland, France, Greenland, Japan, Norway, Poland, Russia, Spain, Sweden, the United Kingdom and the USA.



Highlights



Research Projects Phase II

ArcticNet currently supports 40 multidisciplinary research projects in all fields of Arctic research.



Polar Data Catalogue

Use the Polar Data Catalogue to submit your ArcticNet research metadata or to search for specific polar metadata.



Photo Gallery

Browse through our exclusive photo gallery of over 250 photos illustrating ArcticNet research activities.

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- A major deliverable will be a report on climate change designed and written for regional decision makers
- As a regional decision maker, what are the information needs of the *mining industry* that may be available/addressed through *ArcticNet*?
- Contact me to get on mailing list or to discuss what you would like to see in such a report:

tbell@mun.ca



Mitig Adapt Strateg Glob Change (2011) 16:347-368
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ORIGINAL ARTICLE

Climate change and mining in Canada

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Frank Duerden • Jeremy Pittman • Maude Beaumier •
Lea Berrang-Ford • Barry Smit

Canada 

