

- *Scientific priority issues*
- *IRIS-2 report progress*



Martin Fortier, Trevor Bell photos / ArcticNet

Scientific Priority Issues review

The last issue of our [ArcticNet](#) Eastern Arctic newsletter covered the regional priority issues related to climate change as documented from various stakeholders for the IRIS-2 region (newsletter #3).

This newsletter outlines science priority issues in the context of climate change as identified by current *ArcticNet* investigators involved in the Eastern Canadian Arctic.



Regional priority issues (Newsletter #3)

While compiling information to produce the [ArcticNet](#) Project Profiles (see info-box on page 2) we asked researchers involved in the Eastern Arctic region to identify priority climate change issues from their scientific perspectives.

The following list is a synthesis of their answers. It represents, from a scientific perspective, the key issues as likely to affect social, economic and environmental conditions in the North - the focus of *ArcticNet* science.

Researcher Question #1:

From your own research perspective can you identify and describe the key issues that are (will be?) affecting social, economic or environmental conditions in the Eastern Canadian Arctic?

- Climate change impact on food security of at-risk populations in Regional Inuit centers
- Impacts of climate change on health and well-being of Inuit communities
- Improving graduation levels and enabling greater university access at the same time as strengthening Inuit identity, pride and cultural knowledge
- Economic and social housing conditions
- Shipping risks and opportunities (navigation hazards)
- Increased access to natural resources such as oil, gas and minerals and rapid industrial development in the Arctic
- Arctic security (boundary disputes, newly viable transportation routes, access to resources, and governance issues)
- Sea-ice change and the impact of marine mammal conservation measures on Inuit subsistence hunts
- Arctic wildlife distribution and abundance (projecting arctic wildlife patterns abundance into a warmer future)



Scientific priority issues (Newsletter #4)

- Arctic Ocean nutrient cycling and biological productivity
- Role of sea-ice on the air-sea carbon dioxide (CO₂) flux
- Marine biodiversity inventory (anticipating biodiversity changes and impacts)
- Sea level change and coastal hazards
- Thawing permafrost and integrity of community infrastructure
- Land ice (later freeze up and earlier break up)
- Understand how sea-ice will evolve in terms of ice cover, thickness, seasons (later freeze up and earlier break up) and transport
- Change in lake water quality in response to land changes

IRIS Report

The IRIS-2 report framework will be designed based on regional and scientific priority issues. This approach addresses the ultimate goal of the IRIS report which is to illustrate how traditional knowledge, community knowledge and *ArcticNet* science can together inform policy and decision-making in the region.

The IRIS-2 team, in collaboration with its regional steering committee, is working on the report framework and content and has initiated collaboration with potential lead authors and local advisors. In the following months we will continue our communication exchange and work with collaborators on the first iteration of the IRIS-2 report, building towards a regional workshop in Iqaluit in spring 2012.

Newsletter #5 preview

While compiling the *ArcticNet* project profiles we also asked researchers to identify how their project may contribute to the decision-making process in the context of their priority science issues.

Researcher Question #3:

3) Provide an example of how the results of your project may contribute to the decision-making process with respect to these issues.

- Voicing community concerns to influence decisions and policies that affect Inuit life. Document and describe the nature of food insecurity (James Ford)

- Providing information on marine mammal population dynamics and assisting co-management practices (Steven Ferguson)

Etc...

Newsletter #5 will be distributed in May 2011.

ArcticNet Eastern Arctic profiles

ArcticNet Project Profile

There are 29 current ArcticNet research projects that are directly relevant to the Eastern Canadian Arctic. Each one of these projects is highlighted in newsletter format and made available through email distribution or through our [website](http://www.arcticnet.ulaval.ca). We invite you to browse through these non-technical summaries and to learn about the researchers and their connections to the Eastern Arctic region.

Eastern Arctic Profile

We are also profiling, for the benefit of our readers, organizations and projects that produce or use information relevant to climate change issues in the Eastern Arctic. If you would like to suggest a relevant organization, project or program, we would love to hear from you (pleblanc@mun.ca).

The newsletters are archived on our website:
www.arcticnet.ulaval.ca/research/iris_2_info.php



The IRIS 2 team is using a regular newsletter to encourage information exchange between ArcticNet scientists who generate knowledge in the physical, social and health sciences and decision-makers who use scientific knowledge to inform policy in all sectors of Nunavut society.

For more information on the Eastern Arctic IRIS-2 contact:

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Visit our website at:

www.arcticnet.ulaval.ca/research/iris_2_info.php