

Last Ice Area workshop – Iqaluit June 4-5 2013: Summary

*“We may be a small society but we are never too small to care about biodiversity, not too small to make an effort. Thank-you to WWF for not regarding us as too small.”
(Greenland participant)*

This is a summary of the WWF-sponsored workshop held in Iqaluit June 4-5 2013. The workshop included just under 50 invited guests from Canada and Greenland, representing governments, communities, Inuit organizations and NGOs, and academia.

The full workshop report is available online [here](#) in English. The intent of the workshop was to share research findings, to convene a variety of perspectives on conservation and development in the Last Ice Area, and to ask for peoples’ perspectives on potential



management options for the area of sea ice above Canada and Greenland (the Last Ice Area) that is projected to be the last remaining summer sea ice as the Arctic sea ice melts. While there are quotes used, remarks are not attributed to individuals in this summary.

Information

“We are moving from an ice dominated system to a phytoplankton system.”

The workshop introduced information from research (both scientific and traditional ecological knowledge), some of which was supported by WWF over the past year, and some contributed by workshop participants. The need for this research was identified by Inuit organizations from Greenland and Canada during a consultation in Nuuk in 2012.

Highlights include:

- Both knowledge systems (traditional and scientific) can help us understand the change occurring in the Arctic and what this change means to the animals and people
- Sea ice loss is variable across the Arctic but the trend from both



- traditional knowledge and scientific modelling confirm progressive and accelerating loss of sea ice
- The high Arctic archipelago is predicted to be the most resilient summer sea ice and will remain the longest
- We should expect more precipitation at high latitudes but later arrival of snow resulting in less sea ice formation and increased difficulty for seals to den
- If we do reduce CO₂ in the atmosphere, sea ice responds quickly and can recover its former extent. The longer we wait to act and reduce CO₂ the less effect any change will have
- The diversity of life in the ice is exceptional and an important part of the nutrition of the north, as life within and under the ice forms the first stage of the food web and is the foundation of the biological production in the Arctic ocean including the marine mammals
- As ice melts there is a bloom that forms at the ice edge that gives a boost to the health of the Arctic Ocean this is the second part of a thrust of carbon to fuel the whole ecosystem – so if we lose sea ice we lose both of these
- We are still finding new species of life in ice – we are losing sea ice faster than we can understand the implications of the loss
- Some Inuit are seeing changes in animal behaviours (e.g. polar bears stalking seals from land) and new species of fish, birds and even marine mammals such as killer whales
- Inuit observations show ice changes affect wildlife in many ways from changes in migration routes, wildlife health, population densities and animal behaviour
- Seismic testing has coincided in some areas with an apparent scarcity of marine mammals, according to local hunters
- Increased Arctic shipping potential is there - but when commercial shipping may occur is still undetermined
- Resource development ahs the infrastructures and logistical needs provides opportunities and challenges for the Arctic ecosystem and northern communities

- How Arctic change will affect communities and the people of the north needs to be the focus of research and policy development
- Knowledge is valuable tool for land use planning and forecasting future land use needs
- Various international management options have been development with various levels of success. We have an opportunity to be proactive in ensuring this unique ecosystem can be maintained for the people and animals who depend on it.

Questions

“With more research there is an opportunity to make better decisions.”

Part of the purpose of the workshop was to gather peoples’ remaining questions about the Last Ice Area. We will use the questions to help guide our research in coming years, and also share these questions with other organizations conducting research in this area (e.g. ArcticNet, Greenland Institute of Natural Resources).

- Polynyas (areas of open water in the ice) - is it possible to model how long these will persist? What are the drivers of polynyas, how may the locations shift?
- Research should include culture and history (social science). “The nature of people as well as the nature of nature”
- How can WWF include more community/hunter knowledge in research?
- What are the likely changes in ocean currents and Arctic weather (precipitation, humidity/fog, snow)?
- How will ice breaking and seismic testing related to resource development and shipping affect animals?
- How can Inuit hunters best adapt to change in climate and species?
- How are UNESCO biosphere reserves working for other Indigenous peoples? What other management options are available for consideration?
- Marine mammal surveys may have to be conducted more frequently (currently @ every 10 years) to track impacts of climate change.



Social and cultural perspectives

“The land and environment touches all our lives and we must work together. Your work will help those of us who live up here as well as people in other places.”

WWF believes that it is important to think not just of what the Last Ice Area may mean to animals, but how changes to sea ice may affect people also. We invited some Inuit hunters to share these perspectives.

- This year we saw that the animals that used to turn up in September or October are there in May and June
- There is concern about impact of invasive species – though also seen as opportunity by some (i.e. fisheries)
- There is concern about seismic testing, and comments that seismic testing seems to coincide with scarcity of marine mammals
- Questions on how local people could be helped to adapt – Federal government in Canada (AANDC) has a programme to help communities prepare plans to adapt. Arctic Council's Arctic Resilience Report has a specific focus on food security
- What does Arctic change mean to the people and what do they need not just to survive but to thrive in a changing Arctic.

Management

“When we try to do something faster it takes longer. When we try to do something cheaper it costs more, when we try to do it alone we do not build the trust and relationship.”

Part of the agenda focused on management of the Last Ice Area. This included presentations from national governments (Greenland and Canada) on potential development in and around the area.



- WWF outlined the elements of a UNESCO Biosphere Reserve as one potential model of interest. Emphasis on involvement of local communities – integrates cultural and biological diversity
- Knowledge for planning the use of the land and waters is valuable for proactive policy and management decisions
- How Arctic change will affect communities and the people of the north needs to be the focus of research and policy development

- Various international management options have been developed with various levels of success. We have an opportunity to be proactive in ensuring this unique ecosystem can be maintained for the people and animals who depend on it
- Canada's Department of Fisheries and Oceans has conducted a risk assessment related to climate change in the Arctic, it has identified three main themes: Changes in Biological Resources (greatest risk is to sustainable fisheries); Changes in Access and navigability in shipping; and increased demand to provide emergency response.
- The Canadian government is considering a Strategic Environmental Assessment for Baffin Bay
- One proposal was for an "Arctic Ocean Council" bringing together the five Arctic coastal states to discuss areas of mutual interest in Arctic Ocean management
- The settled land claim in Nunavut may make it somewhat easier to protect areas within Nunavut (approximately 10 years for such a protected area, as opposed to 30-40 years in areas with unsettled Indigenous claims)
- Both Greenlanders and people from Nunavut are sceptical of "outsiders" with opinions on how their environment should be managed
- Bringing Greenland and Nunavut decision makers together to begin to see how to manage the area in the future was much appreciated
- Shared stocks of wildlife between Canada and Greenland have hunting quota implications. We may be able to monitor number of animals locally, but does not necessarily mean we can manage species or quota locally
- Inuit at a community level are not always clear on their ability to intervene in development proposals – especially if they want to oppose development
- The eyes of the world are looking north (new observers to Arctic Council). "A region that was generally understood as being outside global affairs is now central to them"
- A biodiversity hot-spot analysis has been made for Greenland. Scientific report to come out this year. The North Water Polynya (Nordvandet) is extremely high in all criteria. This analysis is still to be integrated in management
- Greenland Government interest in expanding the use of user knowledge in management (pilot project Pisuna)
- In Greenland protected areas are generally used more for recreation and tourism (therefore more impacts) than non-protected areas
- Canadian Department of Fisheries and Oceans has identified Ecologically and Biologically Significant Areas (EBSAs) in the Canadian Arctic – Arctic Multi-year Pack Ice identified as an EBSA (M'Clure and Nares Strait) recognized these ice masses are important
- Partnerships and knowledge sharing in research and policy development are welcomed by the peoples who call the region home. Partnerships between Inuit, academia, government and NGO's need to be built on trust and mutual respect.

Resources:

WWF

http://wwf.panda.org/what_we_do/where_we_work/arctic/last_ice_area/
http://www.wwf.dk/wwfs_arbejde/gronland_og_arktis/

ArcticNet

http://www.arcticnet.ulaval.ca/research/summary.php?project_id=45

Canadian government

Department of fisheries and Ocean Climate risk assessment

<http://www.dfo-mpo.gc.ca/science/oceanography-oceanographie/accasp/index-eng.html>

Aboriginal Affairs and Northern Development Canada

<http://www.aadnc-aandc.gc.ca/eng/1329158189051/1329158264671>

Environment Canada: <http://www.ec.gc.ca>

Greenland Government

Greenland Government, Ministry for Housing, Nature and Environment. Overview of protected areas

http://dk.vintage.nanoq.gl/Emner/Landsstyre/Departementer/Dep_for_boliger_Natur_og_Miljoe/NaturAfd/Nunat%20eqqissimatitat.aspx

Greenland Government, Ministry for Domestic Affairs, Nature and Environment. National Park/Man and Biosphere Reserve Workshop, Nuuk (May 2010). Presentations are found here:

<http://naalakkersuisut.gl/da/Naalakkersuisut/Departementer/Boliger-Natur-og-Miljoe/Naturafdelingen/Nationalparken-i-Nord-og-Oestgroenland/Workshop-2010>

Greenland Government, Ministry for Domestic Affairs, Nature and Environment. Redegørelse FM 2010. Status for strategiarbejdet om Nationalparken og Biosfæreområdet i Nord- og Østgrønland.

<http://naalakkersuisut.gl/~media/Nanoq/Files/Attached%20Files/Natur/DK/Nationalparken/Redeg%C3%B8relse.pdf>

Greenland Government, Bureau for Minerals and Petroleum. Website with information on current licenses, legislation, current strategies (2009 hydrocarbon strategy and 2009 mineral strategy).

<http://www.bmp.gl/>

Danish Center for Environment and Energy (formerly DMU). Biologiske beskyttelsesområder i nationalparkområdet, nord og østgrønland. Faglig rapport 729 (2009). Mapping biological hot spots in the Greenland National Park area.

<http://www2.dmu.dk/pub/fr729.pdf>

Danish Center for Environment and Energy (formerly DMU). Identifikation af sårbare marine områder i den grønlandsk/danske del af Arktis. Videnskabelig rapport 43 (2012). Scientific report mapping vulnerable marine areas in relation to shipping in Greenland.

<http://www2.dmu.dk/pub/sr43.pdf>