CAFF
Conservation of Arctic Flora and Fauna

NORWEGIAN ENVIRONMENT AGENCY

ARCTIC COUNCIL

Arctic Biodiversity Congress

Co-Chairs Report

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Acknowledgements

The Conservation of Arctic Flora and Fauna (CAFF) is a Working Group of the Arctic Council.

CAFF Designated Agencies:

- Norwegian Environment Agency, Trondheim, Norway
- Environment Canada, Ottawa, Canada
- Faroese Museum of Natural History, Tórshavn, Faroe Islands (Kingdom of Denmark)
- Finnish Ministry of the Environment, Helsinki, Finland
- Icelandic Institute of Natural History, Reykjavik, Iceland
- Ministry of Foreign Affairs, Greenland
- Russian Federation Ministry of Natural Resources, Moscow, Russia
- Swedish Environmental Protection Agency, Stockholm, Sweden
- United States Department of the Interior, Fish and Wildlife Service, Anchorage, Alaska

CAFF Permanent Participant Organizations:

- Aleut International Association (AIA)
- Arctic Athabaskan Council (AAC)
- Gwich'in Council International (GCI)
- Inuit Circumpolar Council (ICC) – Greenland, Alaska and Canada
- Russian Indigenous Peoples of the North (RAIPON)
- Saami Council

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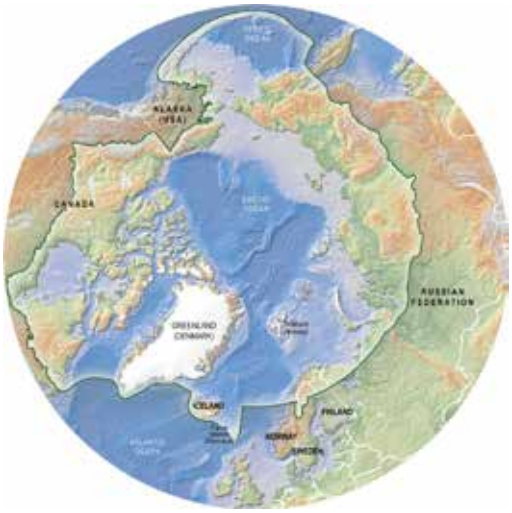

CAFF Designated Area

Conservation of Arctic Flora and Fauna

Arctic Biodiversity Congress: Co-Chairs Report

Risa Smith[1], Tom Barry[2], Finn Katerås[3]

The Arctic Biodiversity Congress was the largest gathering of people in the history of the Arctic Council. It brought together 450 Arctic scientists, policy-makers, government officials, indigenous peoples, students and industry and civil society representatives to discuss the challenges facing Arctic biodiversity and the most appropriate actions for conservation and sustainable use of the Arctic's living resources.

The Congress highlighted the work of the Conservation of Arctic Flora and Fauna (CAFF) working group and the Arctic Council in circumpolar biodiversity conservation and sustainable use, provided an opportunity to discuss the findings of the Arctic Biodiversity Assessment, 2013, and served as a forum for mainstreaming biodiversity - for ensuring that the 17 recommendations arising from the Arctic Biodiversity Assessment are implemented by not just governments, but by many organizations and people, and across sectors. During the Congress participants had opportunities to advise CAFF on the development of "Actions for Arctic Biodiversity: Implementation of the Arctic Biodiversity Assessment Recommendations 2013-2021".

Challenges to the Arctic Council

The Participants, plenary speakers and panelists challenged the Artic Council to:

- Develop an umbrella strategy for sustainable development that includes, as a core component, conservation, sustainable use of biological resources and the maintenance of traditional ways of life for Arctic peoples;
- Speed and scale up actions to implement the recommendations of the Arctic Biodiversity Assessment and the commitments under related international agreements relevant to the Arctic, such as the Aichi Biodiversity Targets developed by the United Nations Convention on Biological Diversity.

Key messages

Several key messages arose from the sessions, expert panels and roundtable discussions:

- Biodiversity underpins sustainable development in the Arctic, including economic, social, cultural, and environmental dimensions. Although there is widespread understanding of the importance of economic development for the well-being of Arctic peoples, there is less understanding of the importance of biodiversity for human well-being, including livelihoods, food security and ecosystem services. Economic development in the Arctic should proceed within the constraints of ensuring the long term sustainability of biodiversity and the ecosystem services it provides.
- The relationship between biodiversity and climate change is complex. While climate change has been identified as the key stressor of Arctic biodiversity, the degree to which it has a negative impact depends on complex relationships between climate change, other stressors, geography, economics, politics and management regimes.
- Conservation of Arctic biodiversity is a global issue, as so much that happens outside the Arctic affects what happens inside the Arctic and vice versa. Migratory species provide a good basis to develop the partnerships necessary to ensure the long term viability of shared species, and at the same time to increase awareness of the shared global heritage that Arctic biodiversity represents.
- Credible knowledge of all kinds, and from all sources, is welcomed and needed in the Arctic. This includes science, traditional knowledge and co-produced knowledge as well as knowledge from academia, business, government, civil society and communities.
- There is a wide gap between what we know and how we act. Although research to fill gaps in knowledge is still needed, there is enough knowledge about what needs to be done to act now. A companion to this message is the urgent need to shorten the time it takes for scientific understanding to be translated into policy in the Arctic.
- Biodiversity policy in the Arctic has to reflect the needs of people living in the Arctic, many of whom are indigenous.
- Conservation of biodiversity and of the ecosystem services it provides requires a long-term perspective and sustained actions at many different temporal and spatial scales

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Actions

The Congress presented many opportunities for participants to advise CAFF on both short term and long term actions necessary to implement the Arctic Biodiversity Assessment recommendations. An overriding message was that while there is an urgency to take some actions now, all actions must be sustained over the long term. A complete list of actions will be incorporated into the "Actions for Biodiversity" report being prepared for Arctic Council Ministers, April 2015. Highlights of actions suggested at the Congress include:

- Develop binding agreements related to the conservation and/or sustainable use of biodiversity.
- Include biodiversity as a fundamental component of Environmental Impact Assessment, Strategic Environmental Assessment and risk assessment in the Arctic.
- Expand both the marine and terrestrial protected areas network and monitor its effectiveness at safeguarding biodiversity.
- Map biodiversity hot spots and biologically and ecologically sensitive areas at a scale appropriate for industry to use in their planning.
- Include biodiversity in national accounting so that the true value of healthy Arctic ecosystems is understood, and the true costs of biodiversity loss are accounted for.
- Develop tools for data sharing so that data collected can be used by a wide range of people engaged in Arctic biodiversity science, policy and management.
- Develop targets to stimulate actions and against which progress can be measured.
- Mainstream biodiversity; build partnerships with a wide range of stakeholders to seek innovative solutions and expand the responsibility for taking care of biodiversity.
- Develop realistic scenarios to help predict what could happen, given different policy options, in the short term (10 to 15 years) and the long term (over 50 years).
- Implement Ecosystem Based Management in marine, terrestrial, freshwater and coastal ecosystems.

Brief synthesis of sessions and overarching themes

Ecosystem based management

The Arctic Council countries are in a unique position to lead the world with the highest standards for biodiversity conservation and sustainable use. Biodiversity objectives should be identified and their implementation tracked against stringent targets for all Arctic development. Adoption of Ecosystem Based Management (EBM) across all Arctic Council countries could achieve this by including the highest standards for the maintenance of ecosystem functions. While the current EBM approach is a good start, it needs further development to elevate the importance of conservation of biodiversity and ecosystem services. It should also include a regulatory approach, such as stringent ballast water regulations to prevent the introduction of invasive marine species into the Arctic marine ecosystem. Promotion of an "Ecosystems First" approach would increase the stature and influence of the Arctic Council beyond the Arctic. A comprehensive approach to sustainable resource management, including fisheries management, should be included in EBM.

Climate change and biodiversity

The effects of climate change on biodiversity are complex and differ depending on the ecosystem. On land, the Arctic is becoming greener, with current vegetation zones moving northward, tundra becoming shrubbier and the growing season becoming longer. The collapse of ecosystem processes has far reaching effects on other species. For example, collapsing lemming cycles in Greenland affects species such as the snowy owl, long-tailed skua, and Arctic fox. Updated evidence of climate change effects was presented for a wide range of species including amphibians, reptiles, pathogens, mammals, birds, fishes and plants. Changes in freshwater ecosystems (e.g., rivers, ponds, wetlands) are more variable than terrestrial ecosystems, in part because different types of freshwater ecosystems respond differently. In the marine realm sea ice is a driving force resulting in changes in the timing of productivity, declines in ice-associated species and range extensions of southern species into Arctic waters. The relationship between climate change and other stressors on managed species was apparent. For example, management of caribou herds, reindeer and geese populations all have to take into account the effects of both climate change and harvest.

While climate change has been identified as a key driver affecting biodiversity, there was agreement across sessions that the interaction between non-climate and climate drivers can create surprising results for biodiversity. Adaptation Actions for a Changing Arctic (AACA) is an Arctic Council project seeking to better understand the complex relationship between climate change and other drivers, such as health, resource development, pollution and contaminants. Also, socio-economic-political drivers, such as commodity prices, human population movement, sovereignty, international regulatory regimes and technology will have an equally important effect on biodiversity and all will interact with climate change.

Protected areas
Although there was general agreement, throughout the sessions and in roundtable discussions, that improvement in the Arctic's marine and terrestrial protected areas network is needed prior to approval of development projects, the nature, size and scope of that network remains unresolved. Inclusion of all relevant knowledge sources, experience from different approaches, and predictive modelling could lead to a protected areas network that safeguards Arctic biodiversity and traditional ways of life over the long term. Some outstanding issues are: whether the focus should be on 'hot spots' of abundance such as polynyas, maintenance of unique Arctic species and ecosystems, representativeness of ecosystem types, or connectivity; how much area needs to be protected; and to what extent boundaries of protected areas should be elastic enough to incorporate change, but stable enough to provide certainty for industry. Ideas, such as the designation of "precautionary areas" to manage increased ship traffic and marine development were also proposed.

Risk assessment
Opportunities to prevent loss of biodiversity still exist in the Arctic, which is relatively undeveloped compared to other places on Earth. A risk assessment approach to development, preferably using the mitigation hierarchy which industry is familiar with, was discussed. This would likely result in regulations for ballast water, oil and gas development, mining and tourism. Vulnerability modeling was presented as an important tool in identifying and managing risk.

Monitoring
CAFF's Circumpolar Biodiversity Monitoring Program (CBMP) led several sessions discussing the importance of standardized circumpolar monitoring in the marine, freshwater, terrestrial and coastal biomes. The CBMP is preparing to compile its monitoring data into State of Biodiversity reports, intended to bring the results of monitoring to the attention of policy makers.

Sustainable use
Indigenous perspectives on sustainable use of polar bears, by Inuit, grazing lands for reindeer herding, by Saami, and salmon, by an Athabaskan chief, highlighted differences of opinion between scientists and indigenous resource managers. Although conservation objectives are similar, perspectives on the best methods for monitoring and setting resource use targets differ. Co-production of knowledge, where scientists and traditional knowledge holders work together to design and implement research projects and monitoring regimes was presented as a promising approach to resolving these differences.

Sustained action
Short term actions are urgently needed, but the Arctic Council has to sustain their initiatives over the long term. Focusing on short term priorities at the expense of a long term vision will compromise effective initiatives. Integration of biodiversity concerns into economic development plans is critical, including a better and wider spread recognition that the costs of inaction to conserve biodiversity for future generations are higher than the short term costs of considering it.

Knowledge gaps
In the area of knowledge, there is a pressing need for mapping of sensitive areas, making data widely accessible, and ongoing monitoring to detect changes that underpin evidence-based responses.

Relationship to areas outside the Arctic
The connection between biodiversity inside the Arctic and biodiversity outside the Arctic was emphasized in several sessions. Some Arctic breeding migratory birds are increasing in numbers (e.g., waterfowl), while others are showing dramatic declines (e.g., shorebirds).

There was agreement that a focus on migratory species provides an effective way to engage non-Arctic countries in conservation and sustainable use of Arctic species during their migrations outside the Arctic. The Arctic Migratory Bird Initiative (AMBI) has identified habitat destruction and degradation, unsustainable harvest and fisheries by-catch as priority issues for birds that fly on north/south flyways. Similarily, on the Circumpolar Flyway habitat protection, by-catch and unsustainable harvest are issues being addressed.

Outreach and Education
A final message running throughout the Congress related to the increased need for outreach and education. Participants highlighted the need to increase public understanding and appreciation of Arctic biodiversity, and its values, not only in monetary terms but in terms of its importance to the quality of life and food security of Arctic indigenous peoples. The value of biodiversity for the ecosystem services it provides to everyone living, working and visiting the Arctic was also highlighted. The dialogue on outreach and education included presentations on many different approaches to communications across different countries and institutions.

Advice to CAFF

Some messages for CAFF were clear. The importance of sustaining, over the long term, the CBMP and advancing the Arctic Biodiversity Data Service (ABDS) were reinforced. The Arctic Migratory Bird Initiative (AMBI) was highlighted as an excellent mechanism for bringing countries outside the Arctic into the Arctic conversation as well as for addressing a critical issue for some species threatened by stressors such as habitat degradation and over-harvesting outside the Arctic (e.g., spoon-billed sandpiper).

Some messages were less clear. Many participants felt that it is the role of the Arctic Council and CAFF to produce credible assessments, monitoring and data management tools on which policy can be based; but it is the role of others to develop policy. An equal number of participants felt that the Arctic Council and CAFF should take a step further and move from monitoring, assessments, data management and recommendations to policy development.

Photo Competition

Over 1900 photos were submitted for consideration to the Arctic Biodiversity "Through the Lens" photography competition. The grand prize went to Arnar Bergur Budjonsson of Iceland. Category winners included: Jenny Ross (Biodiversity); Audun Rikardsen (Landscapes); Jiannan Wang (Arctic Peoples); Anatoly Kochnev (Business and Science), Leif Blake (Under 18) and Merle Marquardt (Under 14). Sponsors of the photo contest were Alcoa Foundation, the Icelandic Arctic Cooperation Network, Hotel Arctic, World of Greenland, Illulissat Water Taxi and Cintamani. Winning photos and runners up will be showcased at natural history museums, Arctic country embassies and other venues over the next two years.

Acknowledgements

Three Arctic Council Secretariats (CAFF, PAME, and the Arctic Council Secretariat) pooled their capacity to ensure the success of the event and four Arctic Council working groups participated in Congress sessions (CAFF, AMAP, PAME, SDWG).

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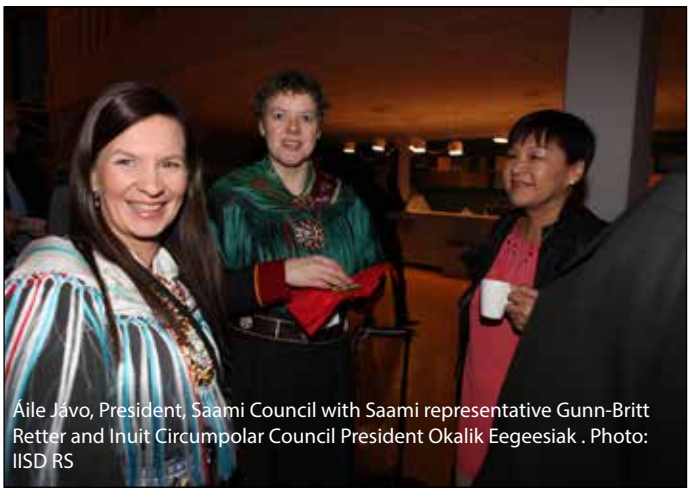
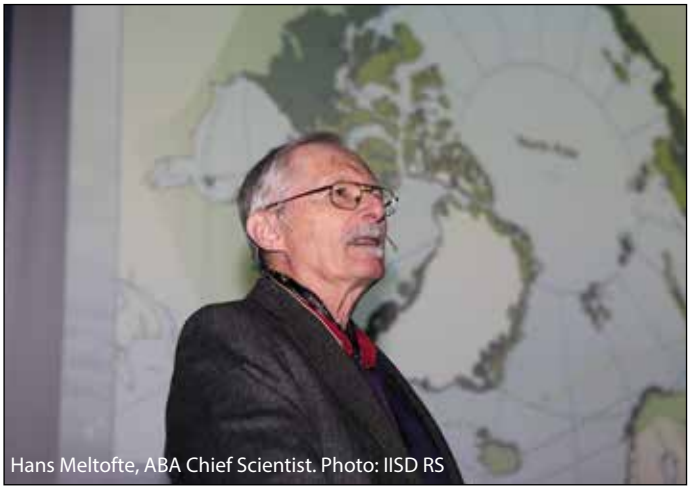
Tine Sundtoft, Minister for Climate and Environment. Photo: IISD

Congress opening plenary. Photo: Bjarni Eiriksson



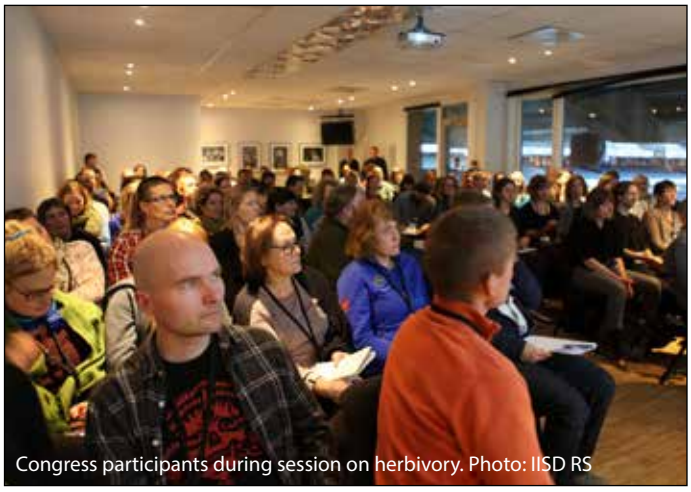
Áile Javo, President, Saami Council with Saami representative Gunn-Britt Retter and Inuit Circumpolar Council President Okalik Eegeesiak . Photo: IISD RS

Congress chair Risa Smith, opening plenary. Photo: IISD RS



Hans Meltofte, ABA Chief Scientist. Photo: IISD RS

Norwegian Senior Arctic Official Else Berit Eikeland and panelists from observer countries. Photo: IISD RS



Congress participants during session on herbivory. Photo: IISD RS

CAFF, PAME and Arctic Council Secretariats. Photo: Bjarni Eiriksson

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