

Arctic Marine Biodiversity Monitoring Plan Norway 2012 Implementation



The Arctic Marine Biodiversity Monitoring Plan (CBMP-Marine Plan) is the first of four pan-Arctic, long-term, integrated biodiversity monitoring plans produced by the Conservation of Arctic Flora and Fauna (CAFF)'s Circumpolar Biodiversity Monitoring Program (CBMP). Approved by the Arctic Council in 2011, the CBMP-Marine Plan will integrate existing circumpolar monitoring datasets and models to improve the detection and understanding of changes in Arctic marine biodiversity, and inform policy and management responses to these changes.

Development of the plan was co-led by Norway and the United States and was the result of extensive discussions and consultations involving experts from Arctic coastal nations, Permanent Participants and other Arctic Council working groups. The CBMP-Marine Plan identifies eight Arctic Marine Areas (AMAs) and Focal Ecosystem Components (FECs) to monitor at various trophic levels using specific methodologies, parameters, indicators and sampling designs drawn from existing monitoring capacity (programs), best practices and data.

The CBMP-Marine Plan is designed to provide comprehensive and timely circumpolar information on Arctic marine biodiversity to decision makers. Its implementation is currently co-led by Canada and Greenland.



Top CBMP Marine Priorities in 2013

- Establish and promote the relevance and importance of the CBMP-Marine Plan
- Improve and stabilize funding for full participation of all Arctic Council coastal states and Permanent Participants (e.g., travel and scientific capacity)
- Focus on discovering, rescuing, and integrating existing Arctic marine biodiversity datasets to establish baselines; contribute to the interoperable Arctic Biodiversity Data Service (www.abds.is)
- Encourage participating states to monitor focal ecosystem components and indicators, and analyze datasets in a coordinated manner
- Begin reporting on the best indicators of change in Arctic marine biodiversity, building on existing monitoring and observation programs
- Contribute to international and national initiatives, e.g., the annual NOAA Arctic Report Card, UN Convention on Biological Diversity, Global Biodiversity Outlook, and Group on Earth Observations Biodiversity Observing Network.
- Continue to explore ways to utilize Traditional Ecological Knowledge

Links with National Priorities

Norway has developed integrated management plans for the Barents and the Norwegian Seas. The purpose of the plans is to provide a framework for the sustainable use of natural resources and goods derived from the area and at the same time maintain the structure, functioning and productivity of the ecosystems of the area.

Ongoing bilateral Norwegian-Russian processes are the Joint Norwegian-Russian Commission on Environmental Cooperation (Marine Group), and the Mixed Norwegian-Russian Fisheries Commission.

Related to these processes are several relevant ongoing projects, for example the BarentsPortal (www.barentsportal.com) reporting about the environmental status of the Barents Sea ecosystem and the development of a joint ecosystem based monitoring program.

At the international level, the CBMP contributes the biodiversity component of the Sustaining Arctic Observing Networks (SAON) and has been endorsed as the official Arctic Biodiversity Observation Network of the Group on Earth Observations Biodiversity Observation Network (GEO BON). CAFF also signed a Resolution of Cooperation in 2010 with the UN Convention on Biological Diversity, which encourages the two organizations to provide and use information and opportunities to promote the importance of Arctic biodiversity.

Marine Expert Network Summary of 2012 Achievements

Benthos

The **Benthos Expert Network** produced the Benthos chapter of the 2012 NOAA Arctic Report Card. They developed a data sharing agreement and shared it with the other expert networks as a model. They have also been looking into comparing different methods/gear.

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Plankton

The **Plankton Expert Network** is summarizing the spatial extent of past sampling, and producing maps showing movement of copepod species from the Pacific into the Arctic. Ongoing processes:

- Validation of species lists for Norwegian areas.
- Identifying existing data sets, aggregated and analyzed to establish indicator baselines.
- Identifying suitable existing indicators and suggestions of new ones.

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Sea Ice

The **Sea Ice Biota Expert Network** works with identifying locations where sea ice biota sampling is ongoing and with assembling available data from published and unpublished sources on sea ice biota (ice algae, meio- and macrofauna). In 2012 contact to key scientist working with sea ice biota has been established and Norway has taken the lead in assembling sea ice macrofauna data. So far an overview of the existing data as well as a preliminary database is available. These data will be analysed for trends biodiversity and abundance on a pan Arctic scale.

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Fish

The **Fish Expert Network** is producing a pan-Arctic species field guide and atlas. They have started collecting species composition and distribution data to calculate baselines.

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Seabird

The **Seabird Expert Network** is the existing CAFF Circumpolar Seabird Expert Group (CBird). The Circumpolar Seabird Monitoring Plan is nearly finalized, and focuses on murre, eiders and black-legged kittiwakes.

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Marine Mammals

The **Marine Mammal Expert Network** is building on the work done for the Arctic Biodiversity Assessment. Work on species richness, estimates of abundance, and the links between marine mammal trends and sea ice has been done. A network specific to ringed seals was established and has developed suitable indicators. The polar bear component of this network has completed their monitoring framework. Norway hosted a 2-day workshop on ringed seal monitoring Oct 2-3, 2012, attended by 12 experts from Norway, USA, Canada and Greenland. The workshop reviewed recent research results and population status of ringed seal populations by region, and finally reviewed the priority parameters listed by the MEN in Vancouver in 2011.

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General

The **Norwegian Directorate for Nature Management** (DN) is the coordinating and financing organization for the CBMP-Marine implementation in Norway. The available budget in 2012 was US\$ 51K for the travel costs for the Norwegian participants.

The **Norwegian Ministry of Environment** supported the Norwegian Polar Institute with US\$ 57K for arranging the Ringed Seal workshop.

The **Nordic Council of Ministers Aquatic Ecosystems Group** also supports the CBMP-Marine with US\$70K. The CAFF Secretariat in Iceland is the project leader and the DN is the project administrative body.

For more information

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