

Arctic Freshwater Biodiversity Monitoring Plan Norway 2014 Implementation



The Arctic Freshwater Biodiversity Monitoring Plan outlines the framework for improving circumpolar monitoring efforts in Arctic freshwaters, including ponds, lakes, rivers, and their associated tributaries and wetlands. The Freshwater Plan provides Arctic countries, monitoring professionals and volunteers with a set of guidelines for common approaches and indicators in future monitoring activities, and for collecting existing data. The Freshwater Plan will facilitate information collection and analysis, identify and fill knowledge gaps, and

provide better information for use in policy and decision-making.

The Freshwater Plan is the second of four long-term, integrated biodiversity monitoring plans produced by the <u>Circumpolar Biodiversity Monitoring Program (CBMP)</u> of the <u>Conservation of Arctic Flora and Fauna (CAFF)</u>, the biodiversity working group of the Arctic Council, and was approved in 2013.

Canada and Sweden co-led the Freshwater Plan's development, which involved the work of experts from Arctic nations, Permanent Participants and other Arctic Council working groups. These experts identified focal ecosystem components, key drivers and indicators, and designed optimal sampling schemes, common parameters and standardized monitoring protocols for application across circumpolar Arctic freshwaters.



Top CBMP Freshwater Priorities in 2015

- Finalize the collection of national metadata summarizing existing paleo, historical and contemporary monitoring data (Project 1)
- Create maps for focal ecosystem components
 (Project 2)
- Produce reports describing existing data (Project 2)
- Aggregate existing data, national and regional dataset compilations, QA/QC, data agreements, and formatting (Project 3)
- Secure funding to support the activities of national Freshwater Expert Networks
- Promote and share the work of the CBMP Freshwater group at key international meetings and conferences, increasing partnerships and collaboration with Arctic colleagues

Links with National Priorities

The assessment of status and trends of freshwater biodiversity will be based on data collected through national monitoring programs, studies related to industrial activities and hydropower development and long or short term scientific studies in the region where relevant data are published and available for general use. For mainland Norway, lots of data and information about freshwater are collected during the latest years connected to the work with River Basin Management Plans according to the EU Water Framework Directive. This is a mixture of scientific data from freshwater, observations and information about status of waterbodies and pressures and impacts affecting lakes and rivers which are available in national databases. The River Basin Management Plans for the relevant regions and the underlying data can be important sources for an Arctic assessment report.

Knowledge about status and trends of freshwater biodiversity together with information on historical and existing sampling sites are essential for designing a future monitoring network for freshwater in the Arctic. A monitoring network, selected functional ecological components and standardized monitoring methods are basic elements for the future monitoring program. Monitoring freshwaters in the Arctic will nationally be coordinated with the monitoring programmes planned according to the Water Framework Directive in relevant regions.

www.caff.is/freshwater

Freshwater Expert Network Summary of 2014 Achievements

The Norwegian Freshwater Expert Network (FEN) was assembled in Autumn 2013. The members of the Norwegian Freshwater Expert network are:

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Marit Mjelde (macrophytes) Norwegian Institute for Water Research Contact: Marit Mjelde Martin Svenning (fish) Norwegian Institute for Nature Research Contact: Martin Svenning

Ann Kristin Schartau (invertebrates) Norwegian Institute for Nature Research Contact: Ann Kristin Schartau

Jan Idar Solbakken (fish) Sámi University College

Funding

The work in the Norwegian FEN is funded by the Ministry of Climate and Environment, Norwegian Environment Agency and by internal budgets in the participating institutes.

Data

In the first phase the most important task for the Norwegian FEN has been to track, collect and organize metadata from freshwater from relevant areas of the Arctic. Data on hydrology together with occasional fish data, are sampled from the early 1900s. During the period 1950 to the present, there are physical, chemical and biological data from several lakes and river systems both in Svalbard and northern Norway. In the next phase, acquisition and quality control of data will be important as a basis for assessing freshwater biodiversity status and trends.

Communication

Based on the collected metadata, a summary report will be presented giving an overview of the geographical and temporal coverage of existing data, with maps showing the location of sites with data. Based on the collected data and expert knowledge, the Norwegian Freshwater Expert group will produce an assessment report presenting the state and development of freshwater biodiversity of the Norwegian Arctic. Together with the national assessment reports from the other Arctic countries an integrated State of the Arctic Freshwater Report based on circumpolar freshwater ecological data are planned in 2017.

For more information

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