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 Circumpolar Biodiversity Monitoring Program (CBMP) of the Conservation of Arctic Flora and Fauna (CAFF), 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

In Iceland, CBMP Freshwater work links to existing datasets and ongoing monitoring programs. Priorities will further be developed by the Freshwater Expert Network (FEN) in line with the ongoing Freshwater Steering Group (FSG) projects. The work has already given a comprehensive overview over the existing datasets and the geographic location of freshwater monitoring efforts in the country.

For the last 10-15 years changes in abundance and stock size of several freshwater species in Iceland has been detected in relation to climate change.

Changes in Sub-Arctic areas are of high value for possible forecasting changes and their consequences at higher latitudes.

In a changing environment, long term systematic monitoring of key factors are of high value for analyzing and understanding the traits for changes and the consequences on biodiversity as well as utilizations of harvested stocks that are of economic importance for the inhabitants and for future sustainable management of the resources. This is in line with the Icelandic authorities priorities for the Arctic.

More on Iceland’s Arctic Policy.

www.caff.is/freshwater
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Thóra Hrafnsdóttir: freshwater biologist at the Natural History Museum of Kópavogur. Contact: Thóra Hrafnsdóttir

Guðni Guðbergsson: the Icelandic Freshwater Steering Group representative and division manager at the Institute of Freshwater Fisheries, which conducts research on river and lake biota. Contact: Guðni Guðbergsson

Árni Einarsson: director of the Myvatn Research Station. He has a broad scientific background in freshwater ecology including the paleolimnology, invertebrates, fishes, birds, ecological interactions and effects of climatic and human impacts in Lake Mývatn. Contact: Árni Einarsson

Funding
The Icelandic Freshwater Steering Group (FSG) member and Freshwater Expert Network (FEN) members’ contributions to the CBMP is in accordance with their respective institutional budgets. For the work scheduled for 2015, the Freshwater CBMP will rely on the contribution of the FEN member’s institutes for their work allowance and for access to available data.

At present, no secure funding is available for the work of the Icelandic Freshwater Expert Network in 2015. Available funding has only secured a small travel budget for the Icelandic FSG member to attend one to two meetings.

A request has been made to further travel funding for FEN members and for assisting labour from specialists at the relevant research institutes in Iceland.

Communication
The FSG has had formal and informal contacts with the other Icelandic CBMP members and the Icelandic CAFF representative.

The Icelandic FEN had two representatives giving talks at the Arctic Biodiversity Congress in Trondheim, Norway in December 2014.

Data
The Icelandic FEN has collected metadata for existing monitoring programs in Iceland, which is the first comprehensive overview for the country.

In addition, the Icelandic FEN has mapped the geographical distribution of Icelandic freshwater monitoring sites within the categories of focal ecological components. The monitoring sites were ranked according to data quality.

The metadata will be a valuable basis for further analyses of existing monitoring data in Iceland as well as for future planning of monitoring the biology of fresh waters.

The Icelandic FEN has had three meetings in 2014 and 2015.

For more information

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