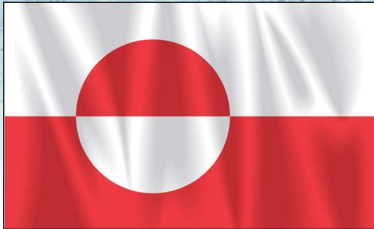


# Arctic Marine Biodiversity Monitoring Plan Greenland, 2017 Implementation



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's](#) (CAFF) [Circumpolar Biodiversity Monitoring Program](#).

The CBMP, endorsed by the Arctic Council, is serviced by an international network of scientists, governments, indigenous peoples organizations and conservation groups working to harmonize and integrate efforts to monitor Arctic living resources. The monitoring program consists of four Monitoring Plans (marine, coastal, freshwater, and terrestrial) that integrate existing monitoring efforts and data to better understand changes in Arctic biodiversity. CBMP Marine is organized through a Marine Steering Group, and six Expert Networks (sea ice biota, plankton, benthos, fishes, seabirds and marine mammals). These networks provide the framework to implement the CBMP-Marine Plan and to facilitate more rapid detection, communication, and response to significant biodiversity-related trends and pressures affecting the circumpolar Arctic.



## Top CBMP Marine activities planned for 2018

In 2017, CBMP Marine produced the State of The Arctic Marine Biodiversity Report (SAMBR), the group's first integrated reporting outcome. SAMBR describes the status and trends within key elements of the marine ecosystem (Focal Ecosystem Components, FECs), gives an overview of Arctic biodiversity monitoring, and provides advice for future monitoring.

In 2018, CBMP-Marine will continue to implement the CBMP Marine Plan and follow up on SAMBR findings and advice, including to:

- Communicate and discuss SAMBR findings in relevant international and national fora;
- Hold sessions at the Arctic Biodiversity Congress 2018 (Finland) and the World Conference on Marine Biodiversity (Canada);
- Draft and publish relevant articles in scientific journals and
- Adjust existing biodiversity monitoring according to SAMBR advice where possible.

## CBMP Marine connections to national activities

Greenland/Denmark has committed to secure Arctic biodiversity via the ['Denmark, Greenland and the Faroe Islands: Kingdom of Denmark Strategy for the Arctic 2011-2020'](#).

The [Greenland Institute of Natural Resources](#) (GINR) is the centre for biological research and monitoring in Greenland. GINR is working closely together with [Danish Centre for Environment and Energy, Aarhus University](#) (DCE). Its primary objective is to provide the Government of Greenland with scientific advice for the sustainable use of the living resources, as well as the safeguarding of the country's environment and biological diversity. As such, GINR represents Greenland in the CBMP Marine.

GINR has monitoring programs for fish stocks, crustaceans, mammals and birds that are important for Greenlandic society. The data on marine mammals and marine birds are available to the CBMP Marine through the [CAFF CBird group](#) and the [Marine mammal expert's network](#). Data from the fisheries monitoring surveys are still to be incorporated in the CBMP Marine.

The [Greenland Climate Research Centre](#) (GCRC) at GINR runs two marine ecosystem monitoring programs, one in a high Arctic system and one in a low Arctic system as part of the [Greenland Ecosystem Monitoring Program](#) (GEM). Data from these two monitoring programs is being incorporated into the CBMP Marine through the expert networks on [Sea Ice Biota](#), [Plankton](#) and [Benthos](#).

# Marine Expert Networks Summary of 2017 Achievements

## Sea Ice

Information on previous sea ice studies in Greenland has been included in CBMP Marine efforts to compile a pan-Arctic data set and is referenced in the 'Status of Arctic Marine Biodiversity Report (SAMBR)'. Sea Ice Biota is not part of ongoing monitoring programs in Greenland and existing data is based on research projects..

**Contact:** [Thomas Juul-Pedersen](#)

## Plankton

Two marine subprograms of the Greenland Ecosystem Monitoring program (GEM) collect key physical, chemical and biological data, including phytoplankton and zooplankton data, from a high Arctic (since 2002) and a low Arctic (since 2005) location. These data sets are incorporated into the Plankton Expert Network group. Results and findings from these time series on plankton community structure and seasonal dynamics are being published by GINR researchers and referenced by the Plankton Expert Network group.

**Contact:** [Mie Winding](#)

## Benthos

During 2014-17 a cost-effective approach to benthos monitoring has been developed in the project 'Initiating North Atlantic Benthos Monitoring (INAMon) lead by GINR. A standardized protocol has been implemented onboard fisheries assessment surveys. INAMon has been a platform for cross-national knowledge-building and sharing with specialists from all Arctic countries and the United Kingdom participating in fieldwork, workshops, development of methods and interpretation of data. Benthos have been registered on more than 1800 localities since 2015 (>400 stations in 2017) from sub- to high-Arctic in West- and East Greenland. More than 900 different benthos species/taxa and a wide range of communities have been documented. The program has significantly increased the knowledge about the occurrence of sponge grounds and concentrations of corals, which are regarded indicators of Vulnerable Marine Ecosystem (VME) habitats.

**Contact:** [Martin Blicher](#)

## Fish

GINR carries out annual fisheries surveys in West and East Greenland, focusing mainly on commercially important species. GINR has at present limited resources to participate actively in the Fish Expert Network.

**Contact:** [Helle Siegstad](#)

## Seabird

Seabird aerial surveys included a summer survey in Northeast Greenland and a winter survey in Southwest Greenland. In addition, thick-billed murre colonies were counted in Mid-west Greenland (Maniitsoq area and Disko Bay), Northwest Greenland (the Upernavik area) and South Greenland, and eider nest counts were carried out in Northwest Greenland.

**Contact:** [Flemming Ravn Merkel](#)

## Marine Mammals

There were three aerial surveys in the Greenland Sea in 2017: a winter survey for bowhead whales, walrus and narwhals in the Northeast Water Polynya, carried out in April; a summer survey for large whales and a summer survey for narwhals. The results of these surveys will feed directly into the abundance database. A NAMMCO workshop on narwhal and beluga, co-chaired by Greenland, resulted in updated abundance data that will be incorporated in the database.

**Contact:** [Fernando Ugarte](#)



Trawl bycatch of marine sponges (*Geodia* sp.) during fisheries assessment investigations in the Davis Strait off the Greenland West coast. Photo: Institute of Zoology / Greenland Institute of Natural Resources

## For more information

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