The Arctic Marine Biodiversity Monitoring Plan is the Marine component of the Conservation of Arctic Flora and Fauna (CAFF)’s Circumpolar Biodiversity Monitoring Program (CBMP).

The CBMP is an international network of scientists, governments, Indigenous organizations and conservation groups working to harmonize and integrate efforts to monitor the Arctic’s living resources. It consists of four Monitoring Plans (marine, coastal, freshwater and terrestrial) that integrate existing monitoring 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 Arctic Marine Biodiversity Monitoring Plan (CBMP-Marine Plan) and to facilitate more rapid detection, communication, and response to the significant biodiversity-related trends and pressures affecting the circumpolar Arctic. CBMP-Marine engages more than 75 scientists and representatives of Arctic Council states, Permanent Participants and Observer countries.

In 2019, CBMP-Marine is focused on convening a scoping workshop to review key elements of the monitoring program and identify potential areas of collaboration within the Arctic Council.

Top CBMP-Marine Activities planned for 2019

In 2018, CBMP-Marine disseminated the findings from the State of the Arctic Marine Biodiversity Report (SAMBR), completed the prior year. SAMBR represents the first integrated reporting outcome of the CBMP-Marine and CBMP overall. Findings from the report were presented at the Arctic Biodiversity Congress 2018 and the World Conference on Marine Biodiversity, among other national and international fora. CBMP-Marine also started the first steps towards reviewing and adjusting marine monitoring activities according to advice contained in SAMBR.

In 2019, CBMP-Marine is focused on convening a scoping workshop to review key elements of the monitoring program and identify potential areas of collaboration within the Arctic Council.

CBMP-Marine connections to activities in the United States

A May 2019 meeting convened Indigenous Knowledge holders, scientists, and resource managers to generate priority actions for marine monitoring in the U.S. Arctic based on advice for monitoring in the SAMBR.

In addition to members of the CAFF Board, Marine Steering Group, and Marine Expert Networks, the meeting provided an opportunity to engage experts new to SAMBR and CBMP overall.

A strong theme of the meeting was the importance of building future recommended next steps through a forum for scientists and Indigenous Knowledge holders with expertise in marine biodiversity monitoring in the U.S. Arctic, including the whole Bering Sea in all future CBMP outputs, and exploring options to synthesize and present existing datasets.
**Benthos**
The Benthos Expert Network has worked primarily with epibenthos to date. While there is potential for more in-depth exploration of existing datasets with additional assistance though differences in sampling methods used across the circumpolar region are a challenge. The Benthos group is now also gathering circumpolar infauna (macrofauna) data and exploring the possibility of sharing circumpolar data via the Alfred Wegener Institute in Germany.

**Seabirds**
Dozens of monitoring sites are being implemented in the U.S. Arctic areas as part of the Circumpolar Seabird Monitoring Program. The sites focus on thick-billed murres, common murres, and black-legged kittiwakes, with monitoring methods designed to facilitate circumpolar comparisons of collected data.

CBird is Co-leading a project on shipping risks to seabirds in polar regions and contributing to projects on Arctic tern population trends, bycatch of seabirds in lumpsucker fisheries, and black-legged kittiwake conservation strategies.

The U.S. is also:

- Participating in Working Group on Integrated Ecosystem Assessment for the Central Arctic Ocean (WGICA).
- Continuing monitoring of population size and reproductive success of multiple species at 8-10 colonies in the Bering and Chukchi seas.
- Working with Circumpolar partners to monitor and implement conservation strategies and action plans for black-legged kittiwakes, common and thick-billed murres, and glaucous gulls.

**Plankton**
US sampling activities continued to focus on the Chukchi sea during 2018, with multiple sampling programs operating from June through August.

Several programs embedded established international DBO transects within their sampling design.

Extensive measurement of primary and secondary production accompanied biodiversity assessments of microbes, phytoplankton and zooplankton during the June survey.

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For more information:

John Bengston  
Marine Mammal Laboratory  
Alaska Fisheries Science Center/NOAA  
7600 Sand Point Way N.E., Seattle, WA 98115-6349  
Tel: 206-526-4045  
www.fisheries.noaa.gov

Cathy Coon  
Chief, Environmental Sciences Management  
Bureau of Ocean Energy Management  
U.S. Department of the Interior  
3801 Centerpoint Drive, #500, Anchorage, AK 99503-5823  
Tel: 907-334-5245

Data and graphics generated by CBMP are available on the Arctic Biodiversity Data Service at https://abds.is