

The Ecosystem Approach to Management:
Status of Implementation in the Arctic
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Abstract:

The Circumpolar Biodiversity Monitoring Program (CBMP) is the cornerstone program of the Conservation of Arctic Flora and Fauna (CAFF) working group of the Arctic Council. 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.

This session will focus on the CBMP conceptual model and how identifying focal ecosystem components works towards an ecosystem approach and identify and to identify priority ecosystem components for monitoring. The ecosystem-based approach to monitoring considers the integrity of entire ecosystems and their interaction with other ecosystems. It provides a bridge between ecosystems, habitats, species, and the impacts of stressors on ecological functions. Results contribute to adaptive management, allowing for effective conservation, mitigation, and adaptation actions appropriate to the Arctic.

The CBMP organizes its efforts around the major ecosystems of the Arctic: marine, freshwater, terrestrial and coastal. The CBMP identifies a common suite of biological focal ecosystem components (FECs), attributes, parameters and comparable methods to coordinate the monitoring of change across Arctic ecosystems. The CBMP works to leverage monitoring activities of networks and nations and establish international linkages to global biodiversity initiatives.

In the context of Arctic biodiversity, the ecosystem-based approach recognizes:

- Monitoring key elements of ecosystems—including species, habitats, ecosystem structure, processes, functions and stressors—is necessary to track biodiversity;
- Focusing on trends will incorporate the dynamic nature of Arctic ecosystems and identify changes that fall outside the realm of natural variability;
- The interplay between terrestrial, freshwater, and marine systems shape Arctic ecology and the "goods and services" that Arctic biodiversity provides;
- Geographically external conditions influence Arctic biodiversity;
- Humans and their cultural diversity are an integral component of many ecosystems and,
- The importance of monitoring the interactions between people and biodiversity, such as sustainable use and the ability of biodiversity to provide essential goods.

The goal of the CBMP is to facilitate more rapid detection, communication, and response to the significant biodiversity-related trends and pressures affecting the circumpolar world. Coordinated monitoring is a critical building block in achieving ecosystem-based management

The CBMP has been endorsed by the Arctic Council and the UN Convention on Biological Diversity and is the official Arctic Biodiversity Observation Network of the Group on Earth Observations Biodiversity Observation Network (GEOBON), and the biodiversity component of Sustaining Arctic Observing Networks (SAON).