

Circumpolar Seabird Expert Group (CBird) Implementation Update, Japan, 2019

The <u>Circumpolar Seabird Expert Group (CBird)</u> promotes, facilitates, and coordinates conservation, management and research activities among circumpolar countries and improves communication between seabird scientists and managers inside and outside the Arctic.





Current CBird Priorities Country participating

- The State of the Arctic Marine Biodiversity Report (SAMBR)
- Arctic Migratory Birds Initiative (AMBI) (Implementing the Circumpolar Flyway Workplan)
- Implementation of the species-specific conservation strategies and action plans
- Contributing seabird monitoring data to State of the Arctic Marine Biodiversity Report (SAMBR) and Seabird Information Network (SIN)
- Circumpolar Review of Arctic Tern Population Trends
- Assessment of seabird bycatch in Lumpsucker fisheries
- Murre harvest study and scientific recommendations to international and national harvest schemes
- Black-legged Kittiwake conservation strategy
- Publication: Circumpolar dynamics of a marine toppredator track ocean warming rates (Descamps et al. 2017, Global Change Biology)

Links with National Priorities

Based on its <u>Arctic Policy</u>, Japan aims to make full use of its strength in science and technology and promote Arctic Research to contribute to policy decision making and problem solving.

Scientific input and partnership via strengthened research and projects such as the Arctic Challenge for Sustainability Project (ArCS) with CBird activities under CAFF is an excellent opportunity for us to contribute as an observer country to the Arctic Council.



As the Japanese national representative to CBird, Akinori Takahashi participated in the 2017 CBird Annual Meeting in Tórshavn, Faroe Islands Photo: CAFF

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Overwintering Migration Tracks from five Pacific Arctic Seabirds

In the summers of 2016-2018 researchers worked on St. Lawrence Island to deploy and retrieve data-loggers that were attached on birds' legs to record their year-round movements. Geolocator tags were deployed and retrieved from Black-Legged kittiwakes (*Rissa tridactyla*), common and thick-billed murres (*Uria aalge, U. lomvia*), and crested and least auklets (*Aeithia cristatella, A.pusilla*). The data were downloaded from the tags and the results showed that during the winter birds were concentrated along the eastern coast of the Kamchatka Peninsula, along the western and eastern corners of the Sea of Okhotsk, and south of the Aleutian Islands in the sub-Arctic North Pacific Gyre. Only a few tracking studies have been conducted in the Bering Sea region, these are the first data on overwintering movements of least auklets and some of the first data on movements for the other study species from the Pacific Arctic.

Colony- and ship-based seabird studies in the Pacific Arctic

Japanese research teams conducted colony-based seabird tracking and ship-based seabird observations in the Pacific Arctic region, in the summer of 2017 and 2018. Researchers from the National Institute of Polar Research, Japan, and the University of Alaska Fairbanks stayed in the native village of Savoonga, St. Lawrence Island, and worked on five species of breeding seabirds during July and August (see highlight). They examined the behaviour and physiological stress of the birds during the breeding season and migration by attaching tracking devices and collecting physiological samples. Researchers from Hokkaido University were onboard TS Oshoro-maru to survey seabird distribution around St. Lawrence Island during June and July. They examined the distribution and density of seabirds in relation to water mass characteristics and prey density determined by CTD and hydro-acoustic measurements. These studies provide important baseline information to examine the effect of changes in the marine environment on seabirds in the Pacific Arctic region.

Seabird responses to a changing Bering Sea

Together with research teams at US universities, Japanese researchers contributed to 'Seabird responses to a changing Bering Sea', a special open access theme section published (open access) in *Marine Ecology Progress Series*. This special theme section assembles studies that explored how seabirds respond to variability in oceanographic conditions, including the timing of sea-ice retreat, in the southeastern Bering Sea. Based on 9 years of bird-tracking and physiological sampling, Japanese scientists and their colleagues reported that warm oceanographic conditions might benefit thickbilled murres (*Uria lomvia*) due to increased availability of juvenile pollock on the continental shelf near their breeding colony in the Pribilof Islands.

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