

# Circumpolar Seabird Expert Group (CBird) Implementation Update Canada, 2019

The [Circumpolar Seabird Expert Group \(CBird\)](#) 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.



Photo: Grant Gilchrist

## Current CBird Priorities

● Country participating ● Country not 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 Lumpfish fisheries
- Murre harvest study and scientific recommendations to international and national harvest schemes
- Black-legged Kittiwake conservation strategy
- Publication: Circumpolar dynamics of a marine top-predator track ocean warming rates (Descamps et al. 2017, Global Change Biology)

## Links with National Priorities

The CBird North Atlantic Murre Harvest Model will inform assessment and development of national and international harvest management strategies for declining populations of thick-billed murre. Ensuring sustainable harvest levels aligns with Environment and Climate Change Canada's mandate, the goals of AMBI, and the CBird Strategy and Action Plan for Murres.

Linkages with CBird and the Ivory Gull Strategy have enabled us to raise funds for Canada's involvement in the internationally synchronized Ivory Gull survey in 2019. This CBird project will provide critical updates to global and country-specific population estimates for this endangered species.

Hosting a significant proportion of the world's population of Leach's Storm-Petrel, Canada has international conservation and stewardship responsibilities for this globally Vulnerable species. Partnerships developed through CBird's storm-petrel project will provide basin-wide perspective and help contextualize declines within Canada for this priority species.

Canada's integration into [SeaTrack](#) Phase II is a good example of how partnerships developed through CBird will help Canada deliver on its conservation priorities. Year-round tracking of a suite of seabirds across the North Atlantic will enable identification of key marine habitat sites, including within domestic waters, and contribute to Canada meeting its Marine Conservation (MPA) targets.

# CBird Summary of 2017-18 Country Achievements

## Marine bird - Polar bear interactions in Arctic Canada and beyond

In some regions of Arctic Canada, Inuit have recently reported that polar bears appear to be having a greater impact on ground nesting birds, perhaps because bears were coming onto shore several weeks earlier when birds are still sitting on nests. Recent collaborative research has confirmed this, and over many regions. It now appears that colonial eider ducks are beginning to redistribute themselves more thinly across a greater number of nesting islands, thereby making it less efficient for bears to depredate their nests (Dey et al. 2017, *Global Change Biology*). Through a new CBird project, research in Canada is being linked to ongoing studies in Russia and Norway, to evaluate the circumpolar magnitude of this emerging issue.



## North Atlantic Murre Harvest Model

A Denmark/Greenland and Canada population model has elucidated relationships between harvest and oiling levels, and how these stressors affect growth rates of North Atlantic murre populations (Frederiksen et al. in press, *Polar Research*).

## Seabird species distribution modeling (SDM) to inform environmental impact assessment

Spatial models of seabird seasonal distribution and abundance were developed for the Labrador Sea (Fifield et al. 2017, *Frontiers in Marine Science*), and for the Baffin Bay-Davis Strait to inform risks associated with potential oil and gas exploration activities.

## Assessment of seabird bycatch in gillnet fisheries

The impact of bycatch in the expanding Baffin Bay-Davis Strait Greenland Halibut fishery was estimated for Northern Fulmar (Anderson et al. 2018, *Marine Environmental Research*). Canada also contributed to estimating magnitude and impact of seabird bycatch in Lump sucker fisheries across the North Atlantic (Led by T. Anker-Nilssen).

## Colony surveys of High Arctic Northern Fulmar

Regionally significant colonies of Northern Fulmar were surveyed in 2018. Preliminary analyses suggest substantial declines in eastern Baffin Island, last visited in the 1980s.

## Key habitat sites for marine birds in the Canadian Arctic

Breeding population size estimates were combined with tracking and at-sea survey data to identify key habitat sites for seabirds and sea ducks in the Canadian Arctic (Mallory et al. 2018, *Environmental Reviews*).

## Status, trends and drivers of Leach's Storm-Petrel populations

Widespread declines have led to collaborative research at key sites in Atlantic Canada involving demographic monitoring, tracking of habitat use and risk exposure (e.g., Hedd et al. 2018, *PloS ONE*), and studies assessing patterns and effects of contaminant exposure and predation.

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