

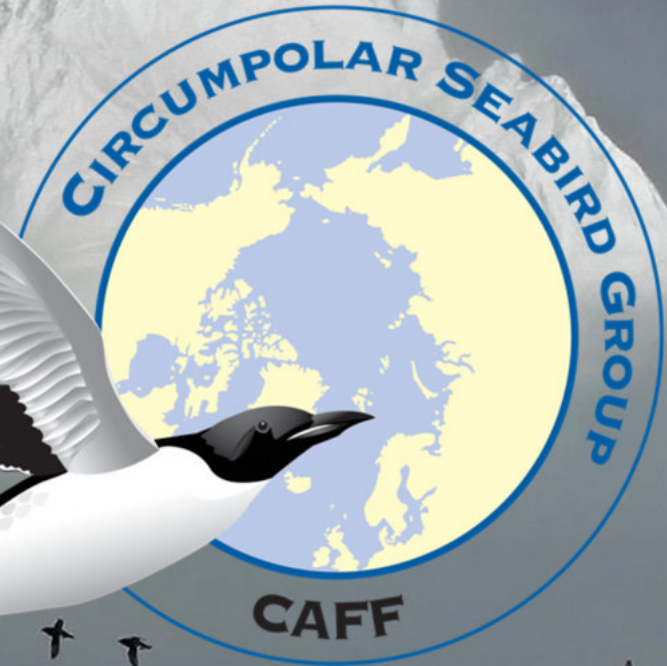
Circumpolar Seabird Expert Group (CBird) and SAMBR

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Photos by Carsten Egevang/ARC-PIC.com
unless otherwise stated



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Circumpolar Seabird Expert Group (CBird)



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



CBird is comprised of members from national representatives, Permanent Participants, observer countries and organizations.

<https://caff.is/seabirds-cbird>

CBird activities



- CAFF publications
 - Status assessments, threat assessments, conservation strategies, action plans
 - Contributions to the Arctic Biodiversity Data Service
- Circumpolar Biodiversity Monitoring Program
 - Circumpolar Seabird Monitoring Plan
 - State of the Arctic Marine Biodiversity Report
- Circumpolar Seabird Data Portal
 - Seabird Information Network
- Arctic Migratory Birds Initiative (AMBI)
 - Circumpolar Flyway
- Scientific publications



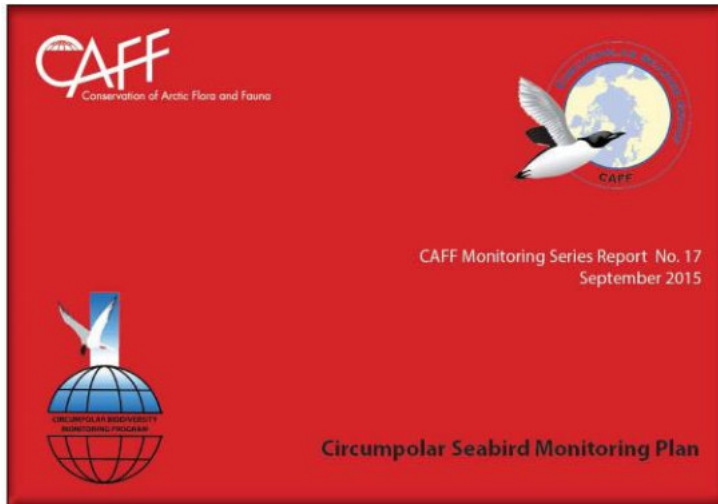
Circumpolar Biodiversity Monitoring Program (CBMP)



- International network of scientists, government agencies, Indigenous organizations and conservation groups working together to harmonize and integrate efforts to monitor the Arctic's living resources
- Developing four coordinated and integrated Arctic Biodiversity Monitoring Plans (marine, freshwater, terrestrial, coastal) to help guide circumpolar monitoring efforts
- Goal is to facilitate more rapid detection, communication, and response to significant biodiversity-related trends and pressures by:
 - Harmonizing and enhancing Arctic monitoring efforts,
 - Reporting to, and communicating with, key decision makers and stakeholders

To date, CBird contributes under the marine component

Circumpolar Seabird Monitoring Plan

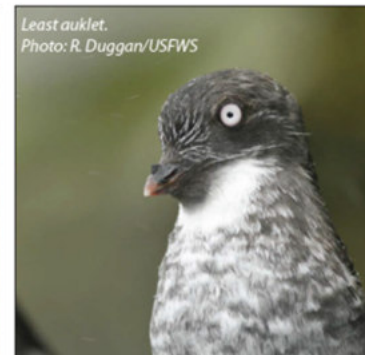


- Monitor populations of selected species
- Monitor survival, diets, breeding phenology, productivity where possible
- Provide information on seabirds to management agencies of Arctic countries in context of circumpolar region
- Inform the public through outreach
- Provide information on changes in marine ecosystems, using seabirds as indicators
- Quickly identify areas or issues in the Arctic to target further research and plan management and conservation measures

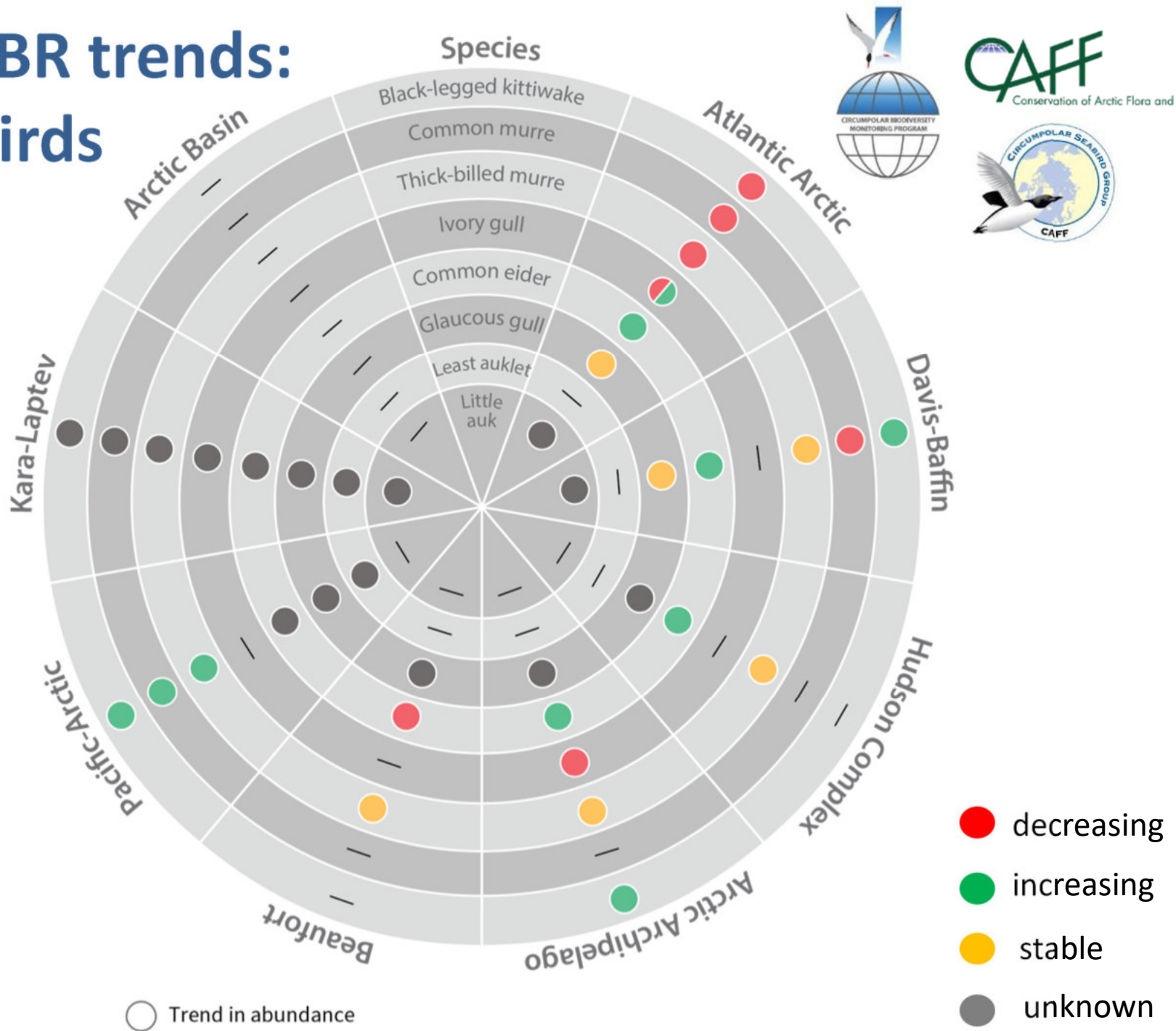
SAMBR Seabird Focal Ecosystem Components and priority species



Foraging guild	Common name	Scientific name	Distribution
Omnivore	Glaucous gull	<i>Larus hyperboreus</i>	Circumpolar
	Ivory gull	<i>Pagophila eburnea</i>	Atlantic
Diving planktivore	Least auklet	<i>Aethia pusilla</i>	Pacific
	Little auk	<i>Alle alle</i>	Atlantic
Diving piscivore	Common murre*	<i>Uria aalge</i>	Circumpolar
	Thick-billed murre*	<i>Uria lomvia</i>	Circumpolar
Surface piscivore	Black-legged kittiwake*	<i>Rissa tridactyla</i>	Circumpolar
Benthivore	Common eider*	<i>Somateria mollissima</i>	Circumpolar



SAMBR trends: Seabirds



SAMBR: Seabird status and trends (as of 2015)



CBMP Arctic Marine Area	CSMP region	Country	Ivory gull		Glaucous gull		Black-legged kittiwake		Thick-billed murre		Common murre		Common eider		Least auklet		Little auk	
			Total pop.	Trend	Total pop.	Trend	Total pop.	Trend	Total pop.	Trend	Total pop.	Trend	Total pop.	Trend	Total pop.	Trend	Total pop.	Trend
Pacific Arctic	5	Russia	-	-	U	S	U	U	U	U	U	U	U	U	U	U	-	-
	5	USA	-	-	843	-	57,047	I	125,880	I	147,722	I	173	U	972,500	U	R	-
Beaufort	6	USA	-	-	426	U	-	-	-	-	-	-	346	I	-	-	-	-
	6	Canada	0	-	U	U	-	-	400	S	-	-	45,000	D	-	-	-	-
Arctic Archipelago	7	Canada	100	D	U	U	-	-	-	-	-	-	-	I	-	-	-	-
	7	Greenland	200	D	500	U	-	-	-	-	-	-	-	-	-	-	-	-
	8	Canada	600	D	U	U	116,000	I	540,000	S	-	-	U	I	-	-	-	-
Davis-Baffin	8	Greenland	-	-	25,000	S	42,628	I	212,160	S	-	-	65,000	I	-	-	33 mil	U
	10	Canada	-	-	U	U	7,000	U	50,000	S	-	-	U	U	-	-	-	-
	10	Greenland	-	-	15,000	S	60,720	I	13,325	D	390	D	22,000	I	-	-	100	U
	11	Canada	-	-	1,800	D	2,000	S	4,500	S	33,600	D	17,374	D	-	-	-	-
Hudson Complex	9	Canada	-	-	U	U	-	-	950,000	S	-	-	>200,000	I	-	-	-	-
Atlantic Arctic	12	Greenland	1,500	D	20,000	S	3,700	U	4,225	D	-	-	13,000	U	-	-	5 mil	U
	13	Iceland	-	-	800	D	407,200	D	205,000	D	405,600	D	300,000	I	-	-	-	-
	14	Iceland	-	-	1,600	D	173,700	D	121,800	D	292,500	D	U	I	-	-	-	-
	15	Faroe Islands	-	-	-	-	200,000	D	-	-	180,000	D	10,000	S	-	-	-	-
	18	Norway	-	-	-	-	81,000	D	100	D	17,000	S	50,000	D	-	-	-	-
	19	Norway	2,000	S	4,200	U	255,000	D	725,000	D	133,000	I	17,000	U	-	-	>1 mil	U
	19	Russia	<3,000	U	>5,000	I	<500,000	D	<700,000	U	>10,000	U	<50,000	U	-	-	>500,000	U
Kara Laptev	20-21	Russia	<10,000	U	U	U	<50,000	U	<20,000	U	-	-	U	U	-	-	<100,000	U

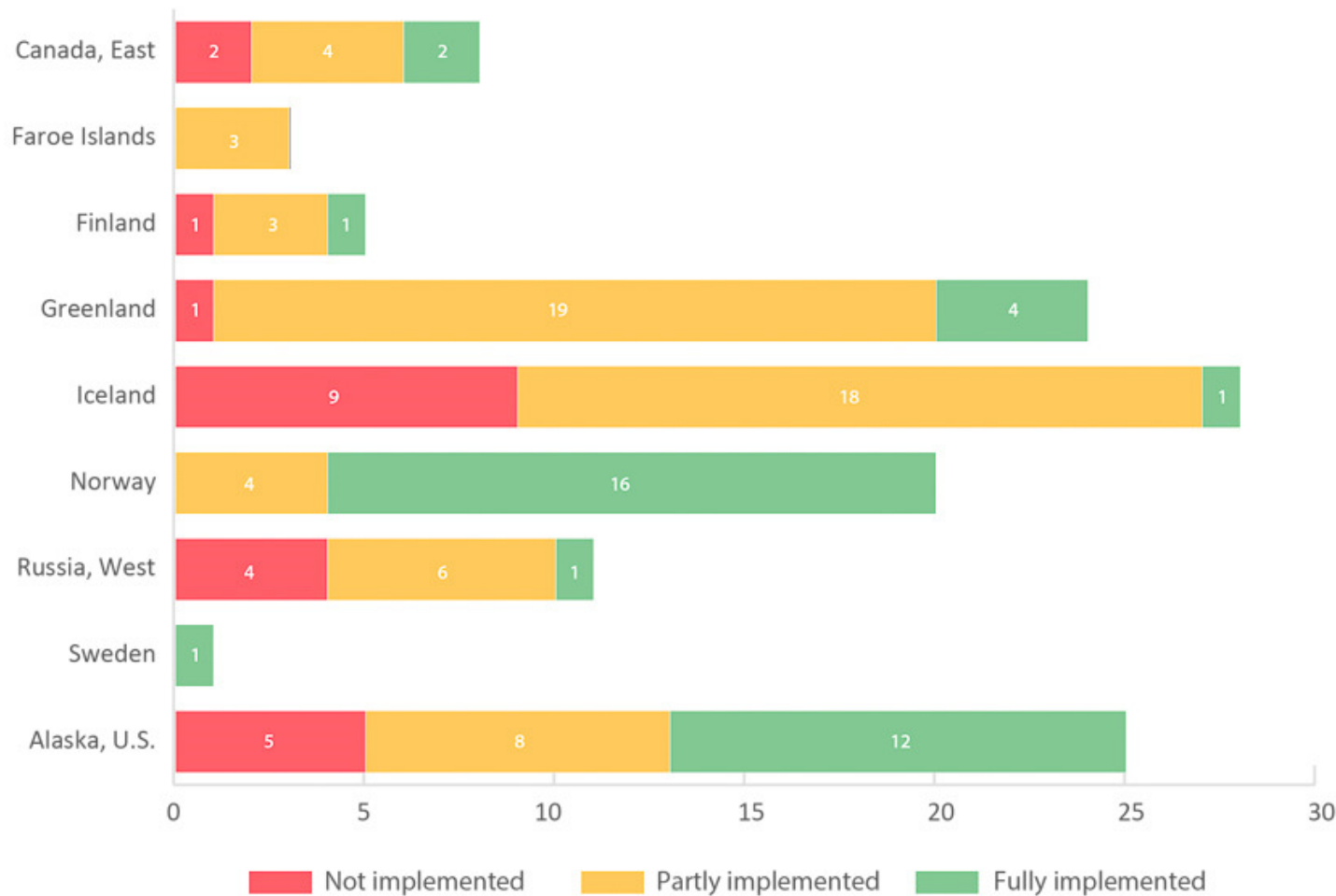
● decreasing ● stable ● increasing R= rare U= unknown



Implementation of seabird monitoring at key sites

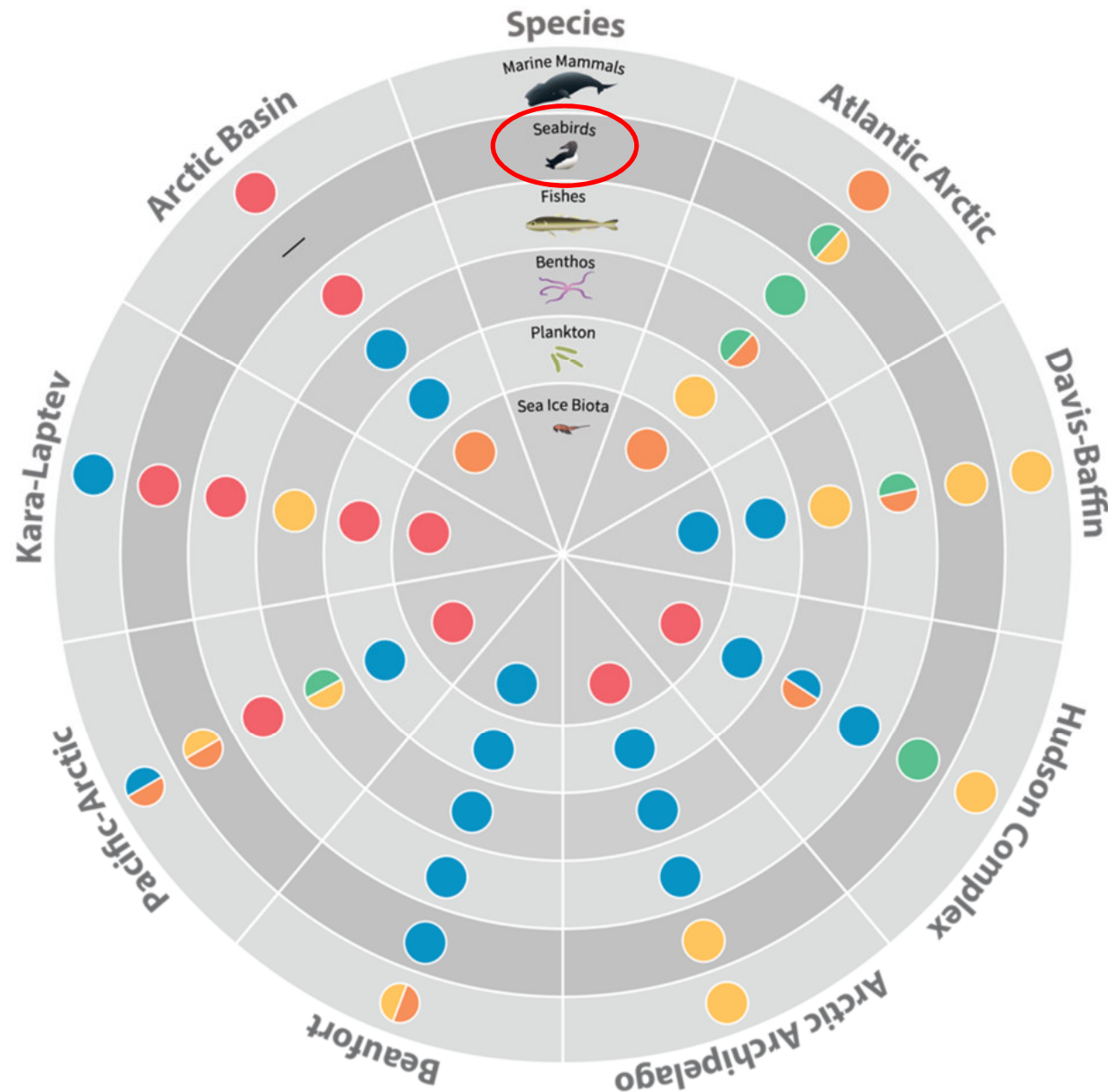
- none
- partial
- full

Numbers of key sites/country



The number of key sites (monitored colonies) for seabirds (in 22 CSMP ecoregions) by country (a total of 125 sites). Sites are categorized as having fully, partially, or not met the CSMP criteria for parameters monitored (see 2.6.2). Data were from Appendix 3 of the CSMP (Irons et al. 2015); the degree of implementation may have changed at some sites since this summary was compiled.

SAMBR: Status of monitoring



- none
- sporadic
- poor
- moderate
- good

Data gaps

- Most of the circumpolar regions are lacking in consistently funded seabird monitoring efforts, but seas near Russia, spanning three ecoregions, are particularly lacking in seabird monitoring efforts
- Demographic data are lacking for most species and colony sites
- Most dietary data are not current, or they rely on what adults feed their chicks (which can be different from what the adults themselves eat) -> new methods needed for assessing diet



Conclusions



- Long-term monitoring efforts are crucial to examining the effects of environmental drivers to changes in seabird populations
 - Climate change, reduced sea-ice, changes in sea temperatures, changes in food webs and species interactions, disease outbreaks, hunting, fisheries bycatch, and pollution (contaminants and oil pollution)
- Most circumpolar nations have at least one source of long-term seabird monitoring datasets, but there is wide disparity in effort across regions, and in particular demographic and dietary data are to a great extent lacking
- Population trends vary within and among regions, making it difficult to assess circumpolar trends
 - Most of the declining populations are in the Atlantic Arctic, declines cut across foraging guilds
 - Most of the stable or increasing populations are in the Pacific Arctic and Arctic Archipelago

Future directions

- More comprehensive monitoring needed (spatial and temporal coverage, parameters)
- Recent findings about migration routes and over-wintering areas highlight the need to expand conservation efforts for circumpolar species beyond the Marine Area boundaries
- It would be advantageous to continue or to increase community engagement in monitoring seabird populations
 - People from local communities are important 'first responders' to catastrophic events



Photo: Mia Rönkä

Thank you



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For more information please visit: <https://www.caff.is/seabirds-cbird>
or contact Mia Rönkä, mia.ronka@utu.fi