



2022 ALASKA SEABIRD UPDATE



I. Jones



M. Rauzon



D. Cushing



S. Webb

One Health Group meeting 6 June 2023

Robb Kaler & Liz Labunski - USFWS Migratory Bird Management, Seabird Program

Gay Sheffield - UAF/Alaska Sea Grant

Brandon Ahmasuk - Kawerak Inc.

Stacia Backensto - National Park Service

Julia Parrish, Tim Jones & Jackie Lindsey - Coast Observation and Seabird Survey Team (COASST)

Heather Renner & staff - USFWS Alaska Maritime NWR

Barbara Bodenstein & Bob Dusek - USGS National Wildlife Health Center

Caroline Van Hemert & Matt Smith - USGS Alaska Science Center

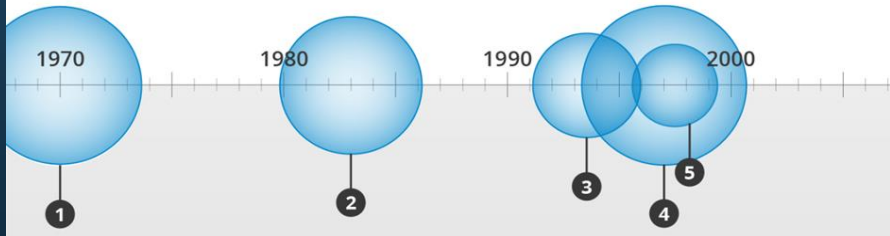


~ 30 million seabirds breed in Alaska
+
~ 30 million birds migrate here in summer

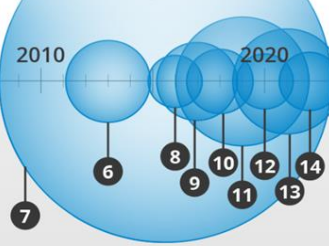
What are seabird telling us?

- During 2022, the northern Bering and southern Chukchi Sea region reported the sixth consecutive year of higher-than-expected beach-cast seabirds (2017-2022).
- Reports of beach-cast carcasses ranged from Point Hope to Izembek Lagoon and numbered ~450, fewer than preceding years but a continued concern for coastal communities.
- Tracking the duration, geographic extent, and magnitude of seabird die-offs across Alaska's expansive and remote coastline is only possible through well-coordinated communication and a dedicated network of Tribal, State, Federal, and university academic partners.

~1,010,000 Seabirds in the previous 40 years



~1,050,000 Seabirds in the last 10 years



1. Apr 1970
Bristol Bay
190,000 murrelets;
starvation
2. Aug-Sept 1983
AK Peninsula
10-100s thousands
murrelets and other
species
3. Mar-Apr 1993-94
Southcentral AK
120,000 murrelets;
starvation
4. Aug-Sep 1997
Bering Sea
600,000 shearwaters;
starvation
5. 1997-98
Bering Sea
No estimate murrelets
6. Nov 2013
St. Lawrence Is.
7,000-36,000 murrelets,
auklets and other
species; avian cholera
7. 2015-16
Gulf of AK
400,000-1,000,000
murrelets; starvation
8. Oct-Nov 2016
St. Paul Is.
300 puffins; starvation
9. Jun-Sep 2017
Bering/Chukchi
1,600 fulmars,
Shearwaters;
starvation
10. May-Aug 2018
Bering/Chukchi
and E. Aleutians
1,200 murrelets, fulmars,
puffins, shearwaters,
auklets; starvation
11. May-Oct 2019
Bering/Chukchi
and E. Aleutians
9,000 murrelets, fulmars,
puffins, shearwaters,
auklets; starvation
12. Jun-Sep 2020
Bering/Chukchi
and E. Aleutians
330 murrelets, puffins,
kittiwakes, auklets;
starvation
13. Jun-Oct 2021
Bering/Chukchi
and Aleutians
2,200 murrelets, puffins,
kittiwakes, auklets;
starvation
14. Jun-Sep 2022
Bering/Chukchi
and Bristol Bay
450 murrelets, puffins,
kittiwakes, auklets;
presumed starvation

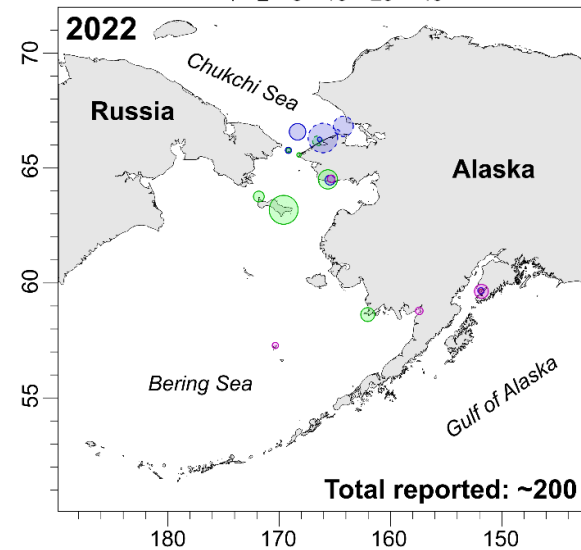
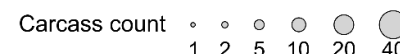
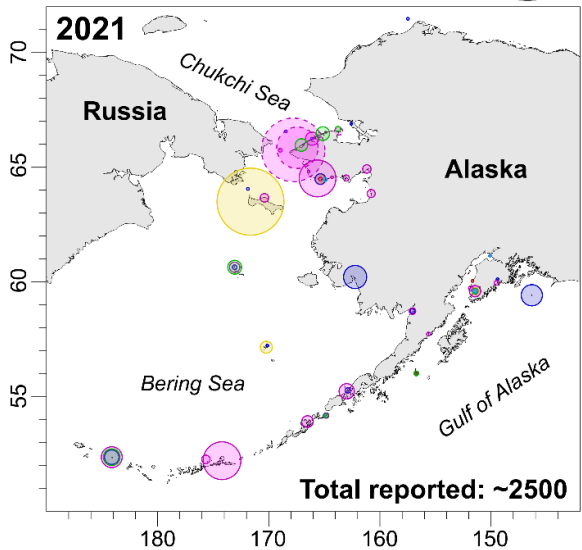
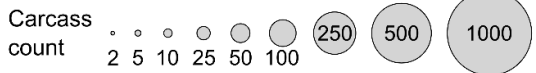
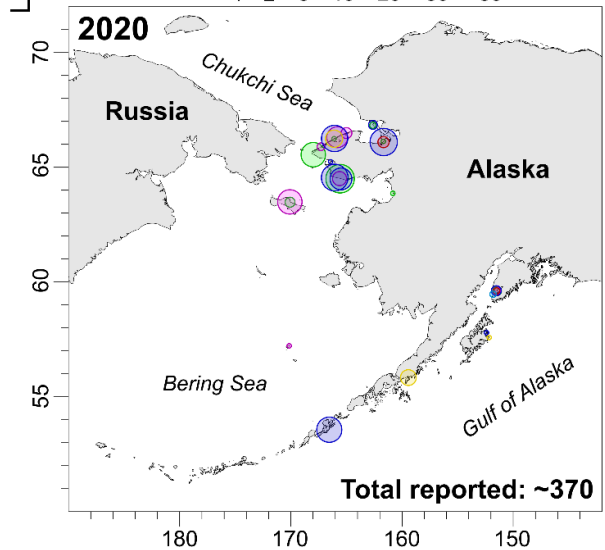
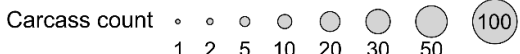
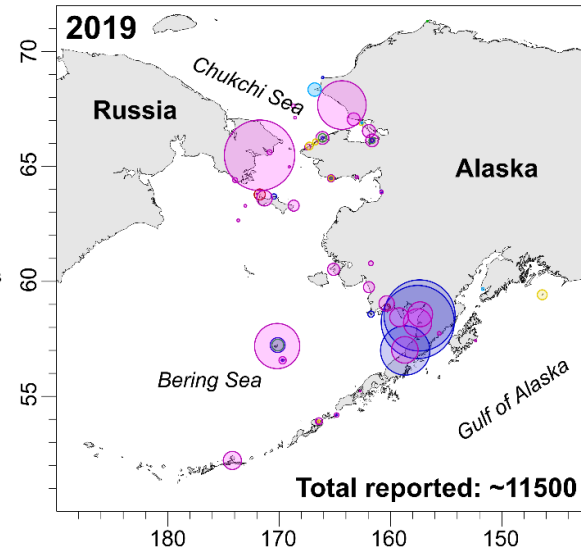
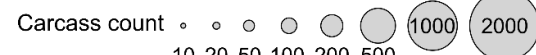
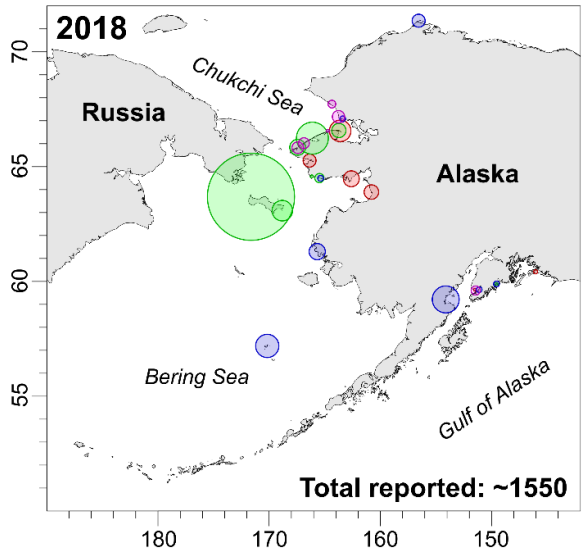
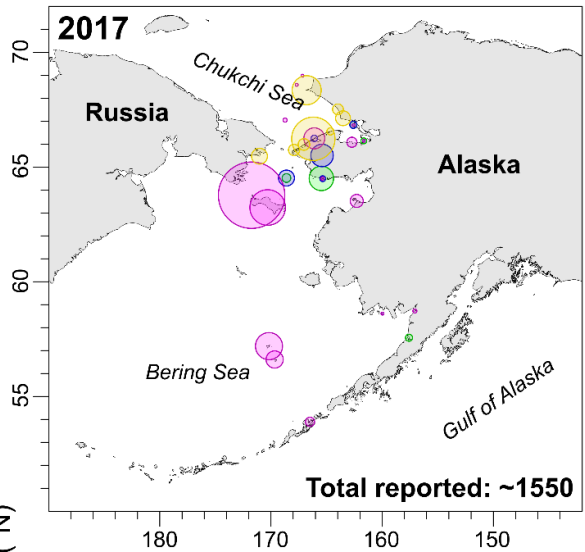


○ = 300
Diameter represents scale
(number of seabirds)



Seabird die-offs

- Alaska die-offs rare prior to 2015, now annual?
- Species at all trophic levels affected, some worse
 - Shearwaters in 2019
 - Thick-billed Murrelets in the Alaska Coastal Current 2018
 - Common Murrelets in GOA 2014/2015
- Public health concern for coastal communities



Longitude (°W)



Seabird die-offs - 2022 Arctic Report Card

	2017	2018	2019	2020	2021	Total
Total Reported	>1,600	>1,200	>9,000	>330	>2,200	>14,330
Total Examined	19	25	39	20	14	117
Reported Cause of Death						
Emaciation	17	19	31	13	12	92
Undetermined	0	3	2	1	1	7
Other	2	3	6	6	1	18
Avian Influenza Detected	0	2	0	1	1	4
Saxitoxin Detected	11	BDL*	3	1&	BDL*	15

*BDL - Below detection limits for the laboratory test used.

&Saxitoxin toxicosis was also suspected to be the cause of death.

Summary of 2017-2021

- >14,000 dead seabird reported
- 117 carcasses examined
 - 92 cases of emaciation (most frequently identified cause of death)
 - 7 undetermined, 18 “other”
- 4 cases of Low Pathogenic Avian Influenza (some cases of HPAI in 2022 in gulls and jaegers which scavenge)
- Some exposure to saxitoxin





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Regional Information & Concerns

- Sledge Island (west of Nome): # of seabirds (e.g., murre) were **Poor**
- Bluff (east of Nome): # of seabirds (e.g., murre) were **Good**
- St. Paul & St. George Islands: Numbers of seabirds and breeding effort were **Normal**
- St. Lawrence Island: Numbers of auklet (plankton-eaters) were **Poor**
- Cape Lisburne: Bears disrupted time-lapse camera... so **Unknown**
- Shishmaref (Sarichef Island): krill die-off 30 September 2022 following 17 September landfall of Typhoon Merbok
- HPAI: 1 confirmed Mallard from the Aleutians; 1 Bald Eagle from Sitka; 1 suspected (unconfirmed) Cackling Goose from the Yukon Delta last week (NPR story -- KYUK Radio <https://www.kyuk.org/health/2023-05-30/first-bird-flu-casualty-detected-in-southwestern-alaska>)
- 2023 Seabird reports (Thanks Gay Sheffield, UAF/Alaska Sea Grant): 1 murre at Shishmaref (Feb); 2 murre at Nome (Mar); 1 eider duck at St. Lawrence Island SW Cape; Diomedede reported murre and eiders near the community



Paul Ongtooguk
Krill washed up on beach. Shishmaref, AK. Posted on fb by Sadie Lucia.



Source: Alaska Maritime NWR
(heather_renner@fws.gov)

Way above average

2017 = 4%
2018 = 22%
2019 = 43%
2022 = 70%

Average

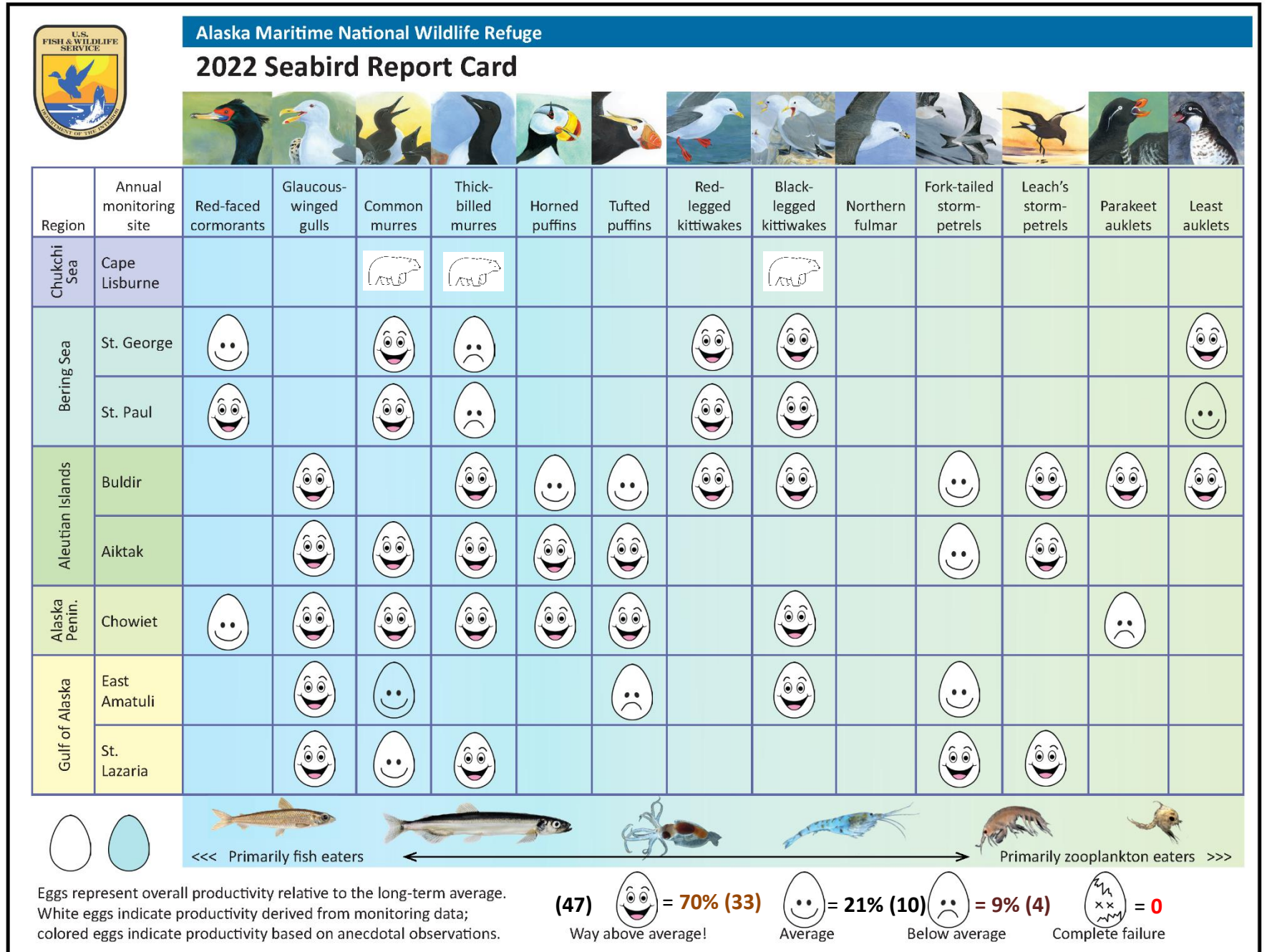
2017 = 40%
2018 = 28%
2019 = 41%
2022 = 21%

Below Average

2017 = 40%
2018 = 31%
2019 = 13%
2022 = 9%

Complete Failure

2017 = 15%
2018 = 19%
2019 = 4%
2022 = 0%



Concerns for Seabirds

Increase in vessel traffic

Large scale commercial fishing

Pollution, plastics, contaminants

Invasive species, diseases

Climate change, loss of sea ice

Diomedede islands & auks: Kathy Kuletz, USFWS



K. Kuletz

Increased vessel traffic
will lead to an increase
in artificial lights



Photo: Michael O. Snyder



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Contact Info

Seabird Status and Trends: USFWS Migratory Birds Management, Seabird Program
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