



2022 ALASKA SEABIRD UPDATE



I. Jones



M. Rauzon



D. Cushing



S. Webb

Kodiak/Aleutian Subsistence RAC Meeting 29-30 March 2023

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

Gay Sheffield - UAF/Alaska Sea Grant, Marine Advisory Program

Brandon Ahmasuk - Kawerak Inc.

Stacia Backensto - National Park Service

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

Heather Renner - USFWS Alaska Maritime NWR

Barbara Bodenstein & Bob Dusek - USGS National Wildlife Health Center

Caroline Van Hemert & Matt Smith - USGS Alaska Science Center



Quyana!

We work in the lands & waters of

Inupiaq, Siberian Yupik, and Yupik peoples (Bering Strait Region)

Yup'ik, Alutiiq, Aleut (Bering Sea & Aleutian Islands)

Alutiiq, Chugach, Eyak (Northern Gulf of Alaska)

Tlingit, Tsimshian, Haida (Southern Gulf of Alaska)

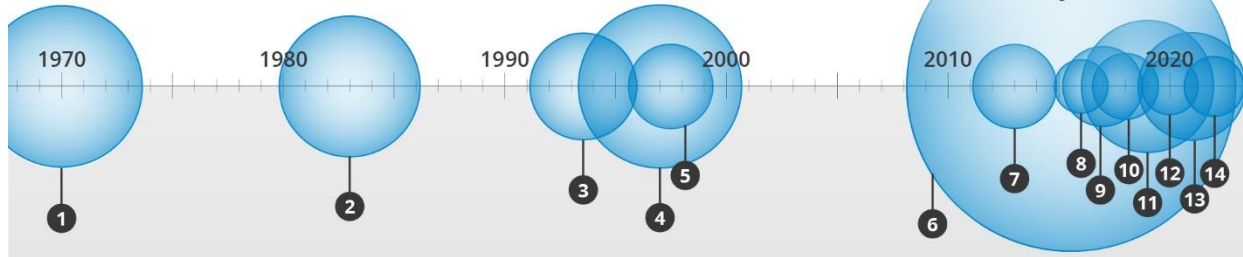
Quyana to partners





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

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

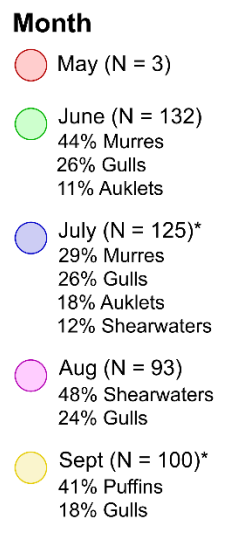
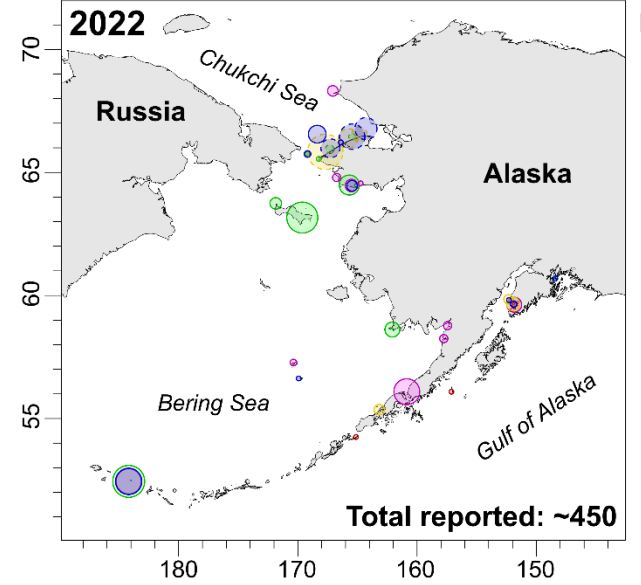
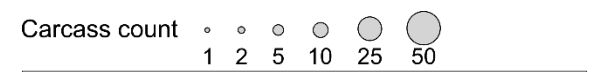
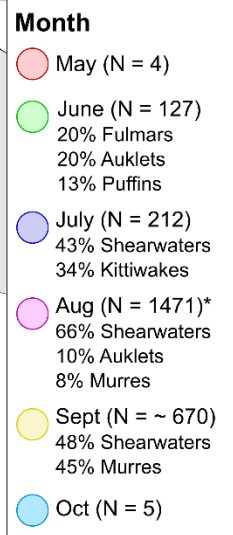
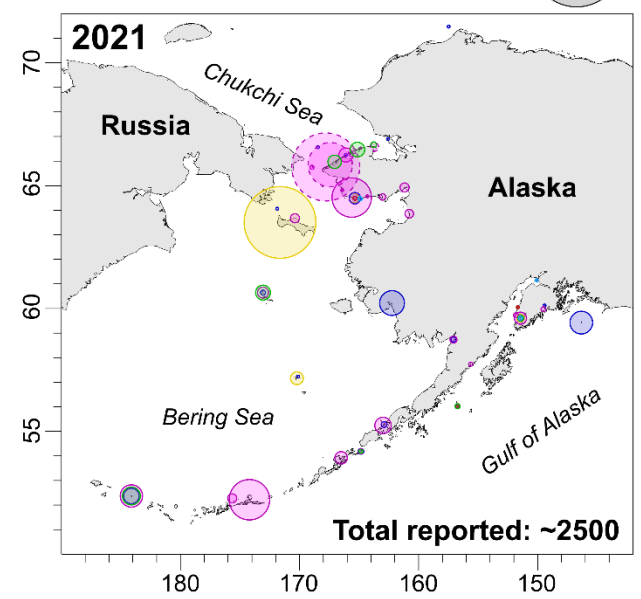
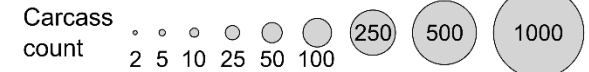
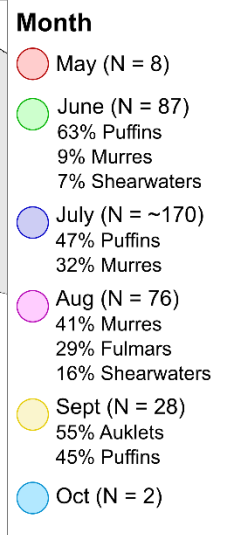
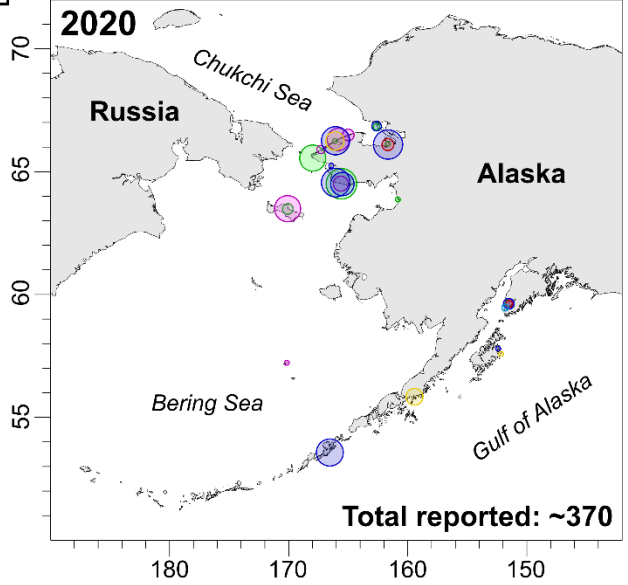
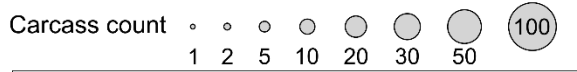
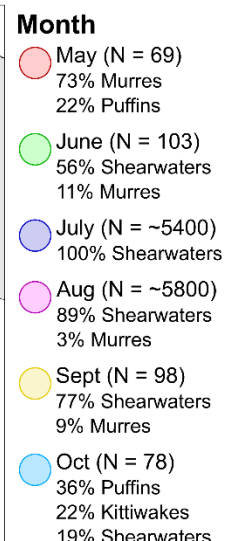
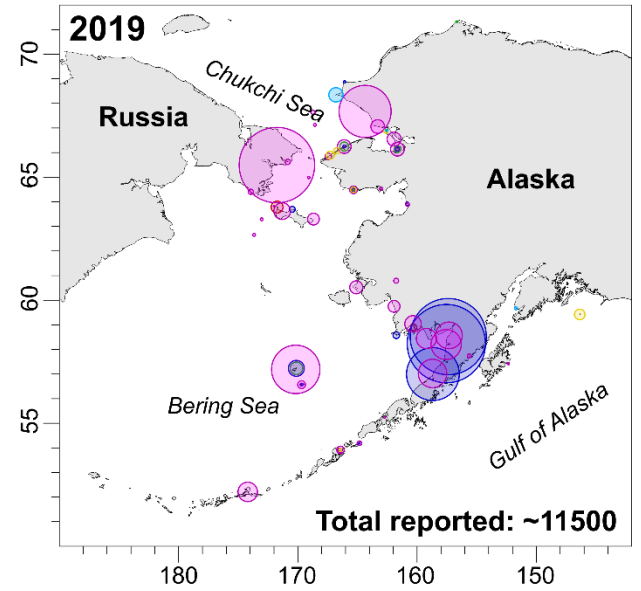
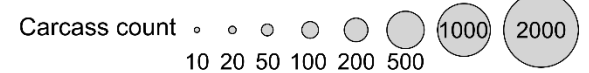
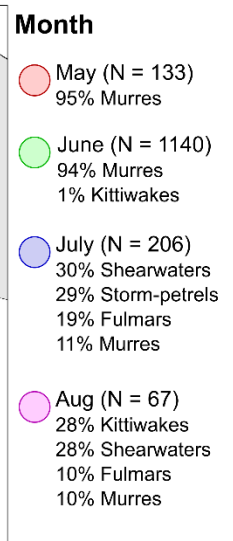
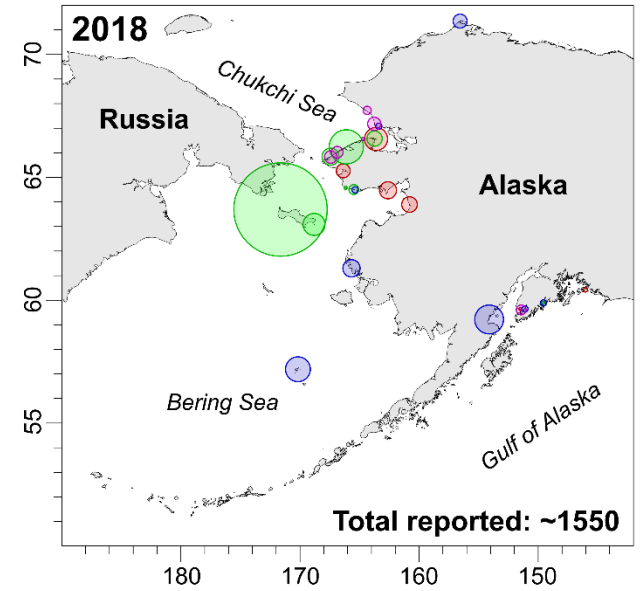
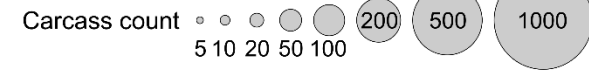
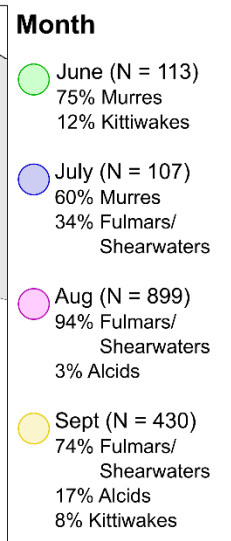
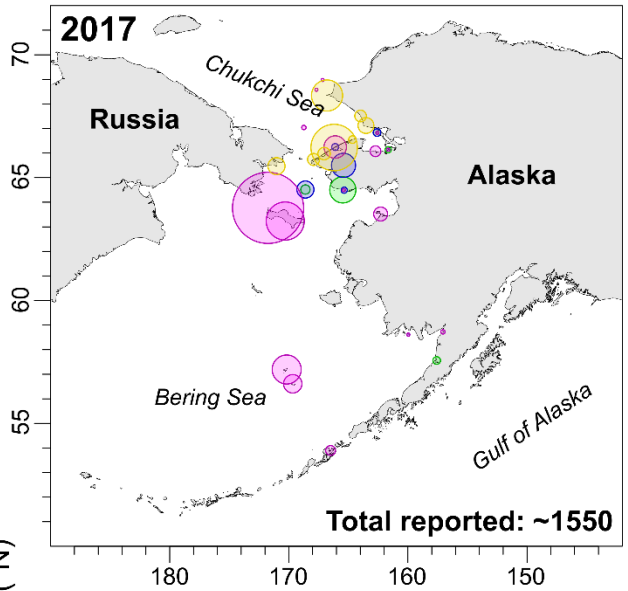
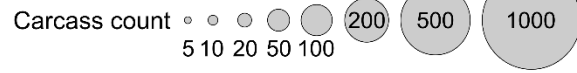


1. Apr 1970
Bristol Bay
190,000 murrelets;
starvation
2. Aug-Sept 1983
AK Peninsula
10-100s thousands
murrelets and other
species
3. Mar-Apr 1993-94
Southcentral AK
120,000 murrelets;
starvation
4. Aug-Sep 1997
Bering Sea
600,000 shearwaters;
starvation
5. 1997-98
Bering Sea
No estimate murrelets
6. 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



Seabird die-offs

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



Longitude (°W)



2017-2021 Results: necropsy, disease and HABs testing

Summary of Bering and Chukchi Seas seabird necropsies, 2017-2021. More than 14,000 dead seabirds were reported and a total of 117 carcasses were examined. 92 cases had emaciation identified as the Cause Of Death (COD), seven cases where COD was undetermined, and 17 cases where COD was determined as "Other", which included predation, trauma, encephalitis, peritonitis, and bacterial infection. Low Pathogenic Avian Influenza (n=4) and saxitoxin (n=15) were also detected; however, the virus and biotoxin were not determined to be the COD except for one case in 2020 where saxitoxin toxicosis was suspected. Data are summarized from Bodenstein et al. (2022).

		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.							



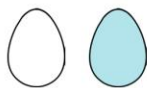


Alaska Maritime National Wildlife Refuge

2022 Seabird Report Card



Region	Annual monitoring site	Red-faced cormorants	Glaucous-winged gulls	Common murres	Thick-billed murres	Horned puffins	Tufted puffins	Red-legged kittiwakes	Black-legged kittiwakes	Northern fulmar	Fork-tailed storm-petrels	Leach's storm-petrels	Parakeet auklets	Least auklets
Chukchi Sea	Cape Lisburne													
Bering Sea	St. George	White egg with smile		White egg with smile	White egg with frown			White egg with smile	White egg with smile					White egg with smile
	St. Paul	White egg with smile		White egg with smile	White egg with frown			White egg with smile	White egg with smile					White egg with smile
Aleutian Islands	Buldir		White egg with smile		White egg with smile	White egg with smile	White egg with smile	White egg with smile	White egg with smile		White egg with smile	White egg with smile	White egg with smile	White egg with smile
	Aiktak		White egg with smile	White egg with smile	White egg with smile	White egg with smile	White egg with smile				White egg with smile	White egg with smile		
Alaska Penin.	Chowiet	White egg with smile	White egg with smile	White egg with smile	White egg with smile	White egg with smile	White egg with smile		White egg with smile				White egg with frown	
Gulf of Alaska	East Amatuli		White egg with smile	White egg with smile			White egg with frown		White egg with smile		White egg with smile			
	St. Lazaria		White egg with smile	White egg with smile	White egg with smile						White egg with smile	White egg with smile		



Eggs represent overall productivity relative to the long-term average. White eggs indicate productivity derived from monitoring data; colored eggs indicate productivity based on anecdotal observations.

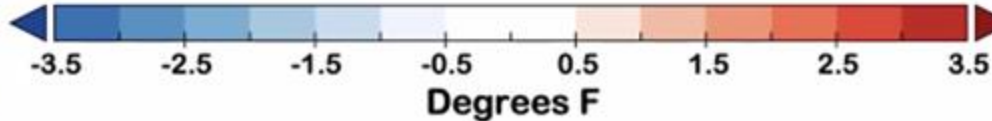
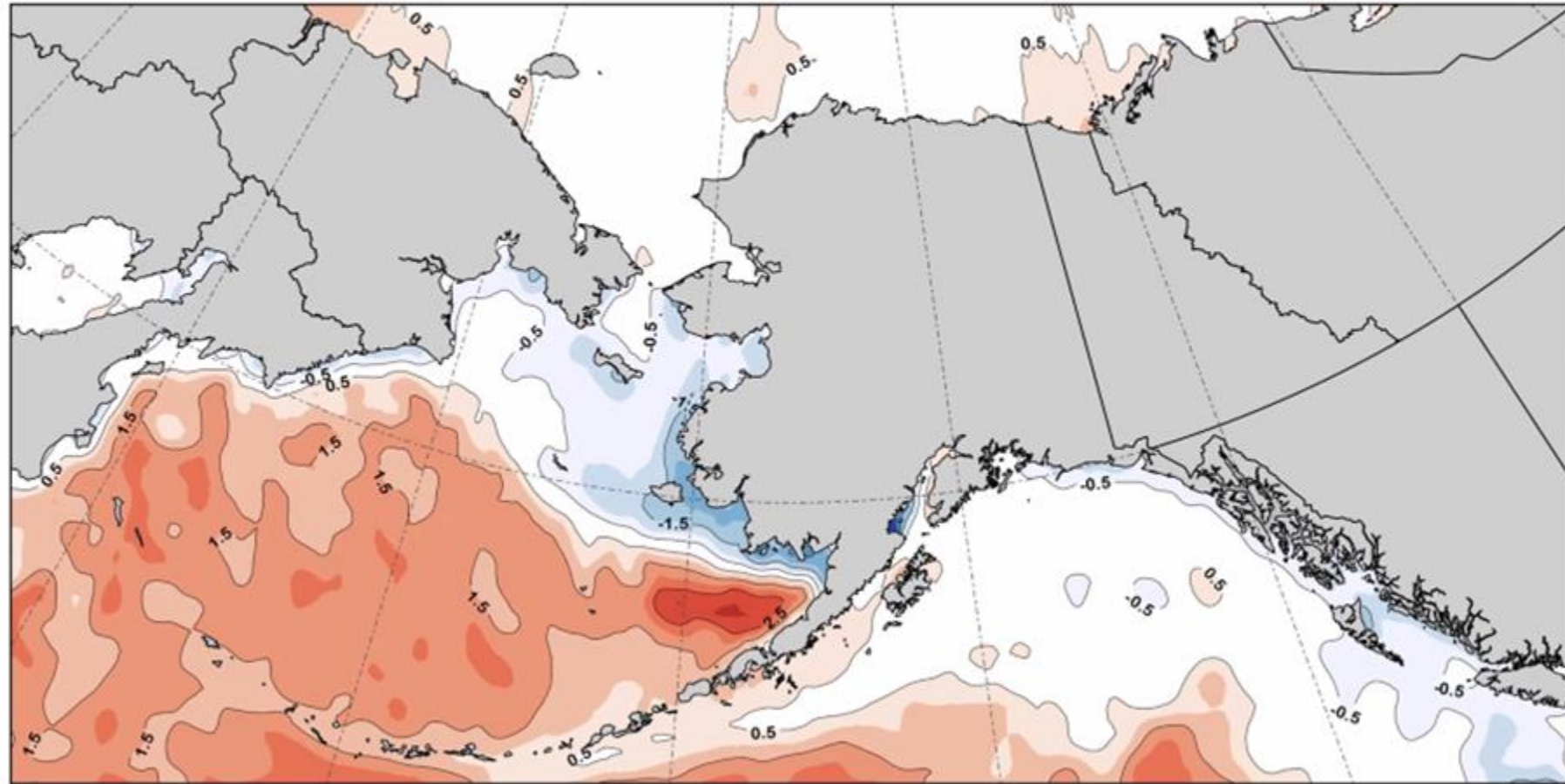
Way above average! Average Below average Complete failure

Reproductive rebounds in 2022

8 sites

Winter 2022-23 Ocean Temperatures

Average Sea Surface Temperature Departure from Normal
Winter (December through February) 2022-23





I. Jones



M. Rauzon



D. Cushing



S. Webb

AMBCC Seabird Subcommittee [Fall 2021 Meeting]

Robb Kaler (*Acting Chair*, USFWS)

Gayla Hoseth (Bristol Bay Region)

Jack Fagerstrom & Brandon Ahmasuk (Bering Straits/Norton Sound Region)

Coral Chernoff (Kodiak Archipelago Region)

Cyrus Harris (Northwest Arctic Region)

Jennifer Hooper (Yukon-Kuskokwim Delta Region)

???

2022 Regional Information & Concerns

Sledge Island (west of Nome): Numbers of seabirds (e.g., murre, feed on fish) were **Poor**

Bluff (east of Nome): Numbers 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 (feed on plankton) were **Poor**

Cape Lisburne: New approach using time-lapse cameras was stymied by bears so **Unknown**

Concern regarding hatchery salmon

Shishmaref (Sarichef Island) krill 30 September 2022 following 17 September landfall of Typhoon Merbok

NOAA Seabird Bycatch - most take are Northern Fulmars

(murre bycatch is minimal)



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



Concerns for Seabirds

Increase in vessel traffic

Large scale commercial fishing

Pollution, plastics, contaminants

Invasive species, diseases

Climate change, loss of sea ice



K. Kuletz

Increased vessel traffic
will lead to an increase
in artificial lights



Photo: Michael O. Snyder

Quyana

QUESTIONS

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