



2021 ALASKA SEABIRD UPDATE



I. Jones



M. Rauzon



D. Cushing



S. Webb

Yukon-Kuskokwim Delta Council Meeting

2 March 2022

Robb Kaler & Liz Labunski - USFWS Migratory Bird Management
Barbara Bodenstein & Bob Dusek - USGS National Wildlife Health Center
Gay Sheffield - UAF-Alaska Sea Grant
Brandon Ahmasuk & Austin Ahmasuk - Kawerak Inc.
Stacia Backensto & Heather Coletti - National Park Service
Julia Parrish, Tim Jones & Jackie Lindsey - COASST





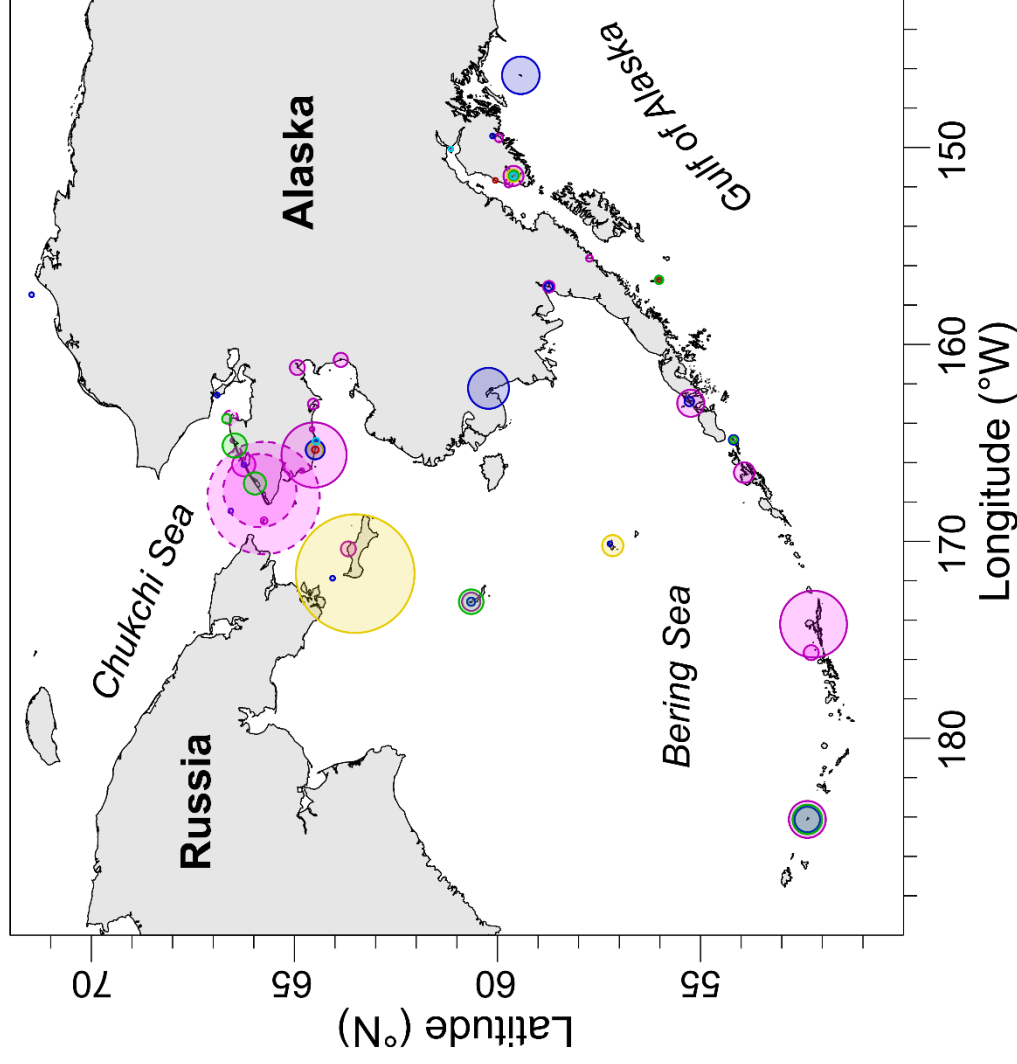
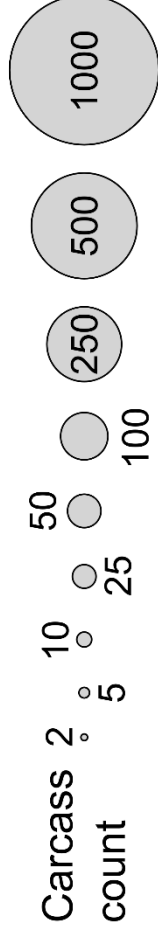
2021 Alaska Seabird Die-off

Reported:

- May-September, ~2,100 seabird carcasses reported in Alaska
 - 1,750 Bering/Chukchi
 - 270 Aleutians
 - 60 Gulf of Alaska

Seabird species

- Loons
- Shearwaters
- Cormorants
- Gulls/Kittiwakes
- Murres
- Auklets
- Puffins



Month

- May (N = 4)
- June (N = 127)
 - 20% Northern fulmars
 - 20% Auklets
 - 13% Puffins
 - 10% Black-legged kittiwakes
- July (N = 212)
 - 43% Shearwaters
 - 34% Black-legged kittiwakes
- August (N = 1471)*
 - 66% Shearwaters
 - 10% Auklets
 - 8% Murres
 - 6% Black-legged kittiwakes
- September (N = ~ 670)
 - 48% Shearwaters
 - 45% Murres
 - 5% Horned puffins
- October (N = 5)

* : species composition is of birds identified to species/group. However, in August a large proportion (60%) of birds were unidentified

Note: Circles represent reports of seabird carcass abundance and are not standardized for variable observer effort among locations. The absence of reports in certain locations may indicate gaps in current knowledge OR an actual absence of bird carcasses. Reports from aerial surveys (dashed circles) are distinguished from other beach-based reports (solid circles) due to major differences in area observed.





2021 Alaska Seabird Die-off

Response:

- The USGS National Wildlife Health Center examined:

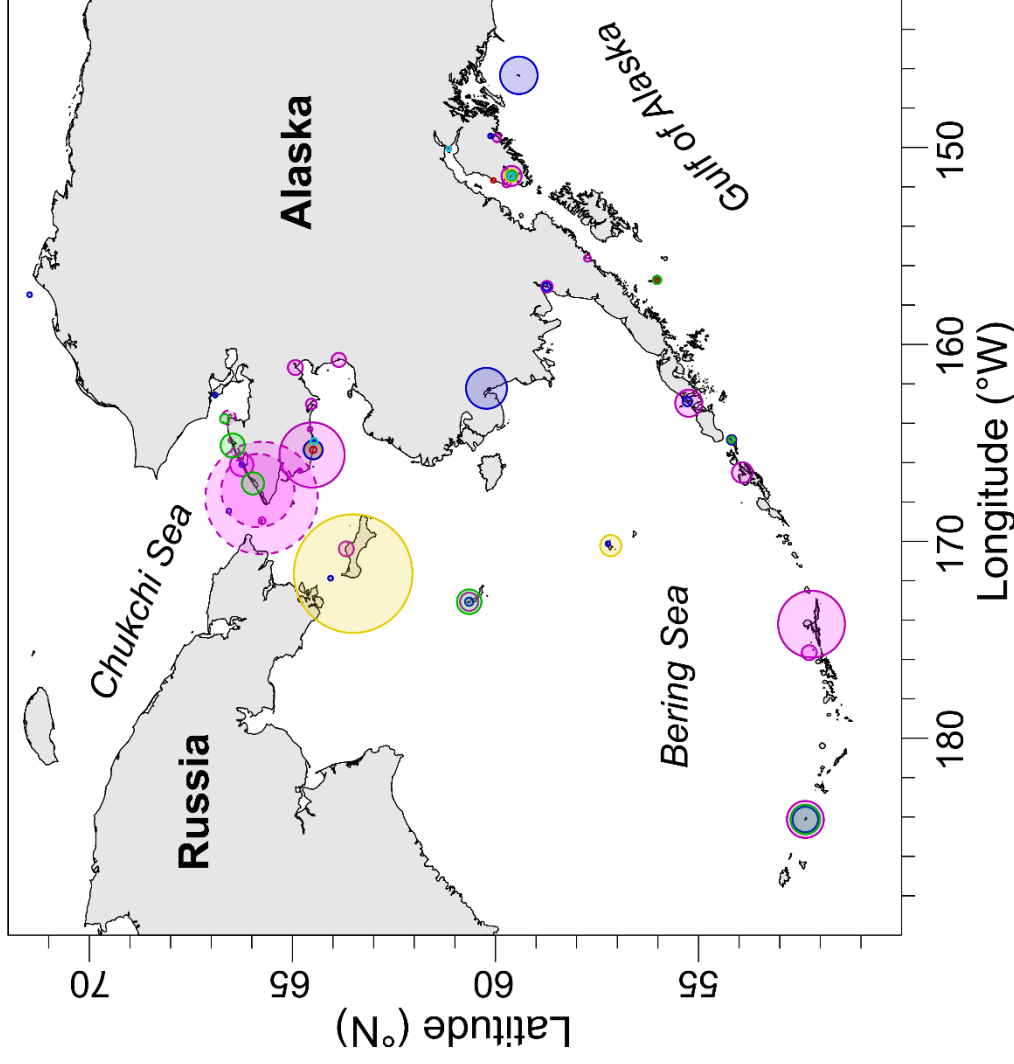
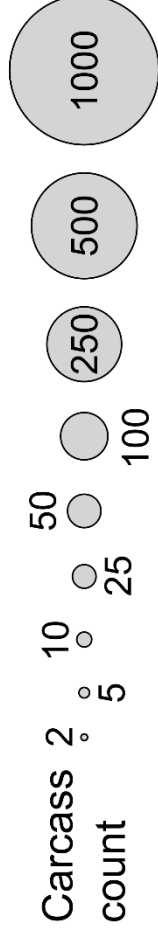
12 carcasses from the Bering Strait

- o emaciated
- o negative for Avian Influenza
- o biotoxin results pending

12 carcasses from Middleton Island

- o poor to fair nutritional condition
- o negative for Avian Influenza
- o no biotoxins detected
- o 2 kittiwakes tested positive for Avian Botulism Type C (**first Alaskan case**)

- o Type C Avian Botulism does not affect humans



Month

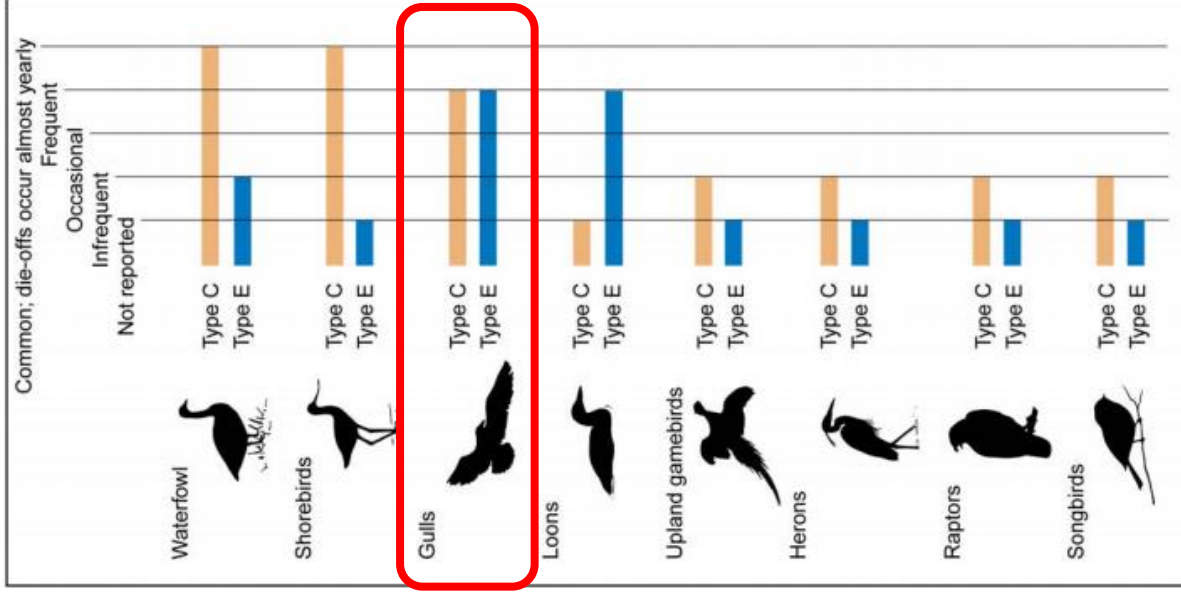
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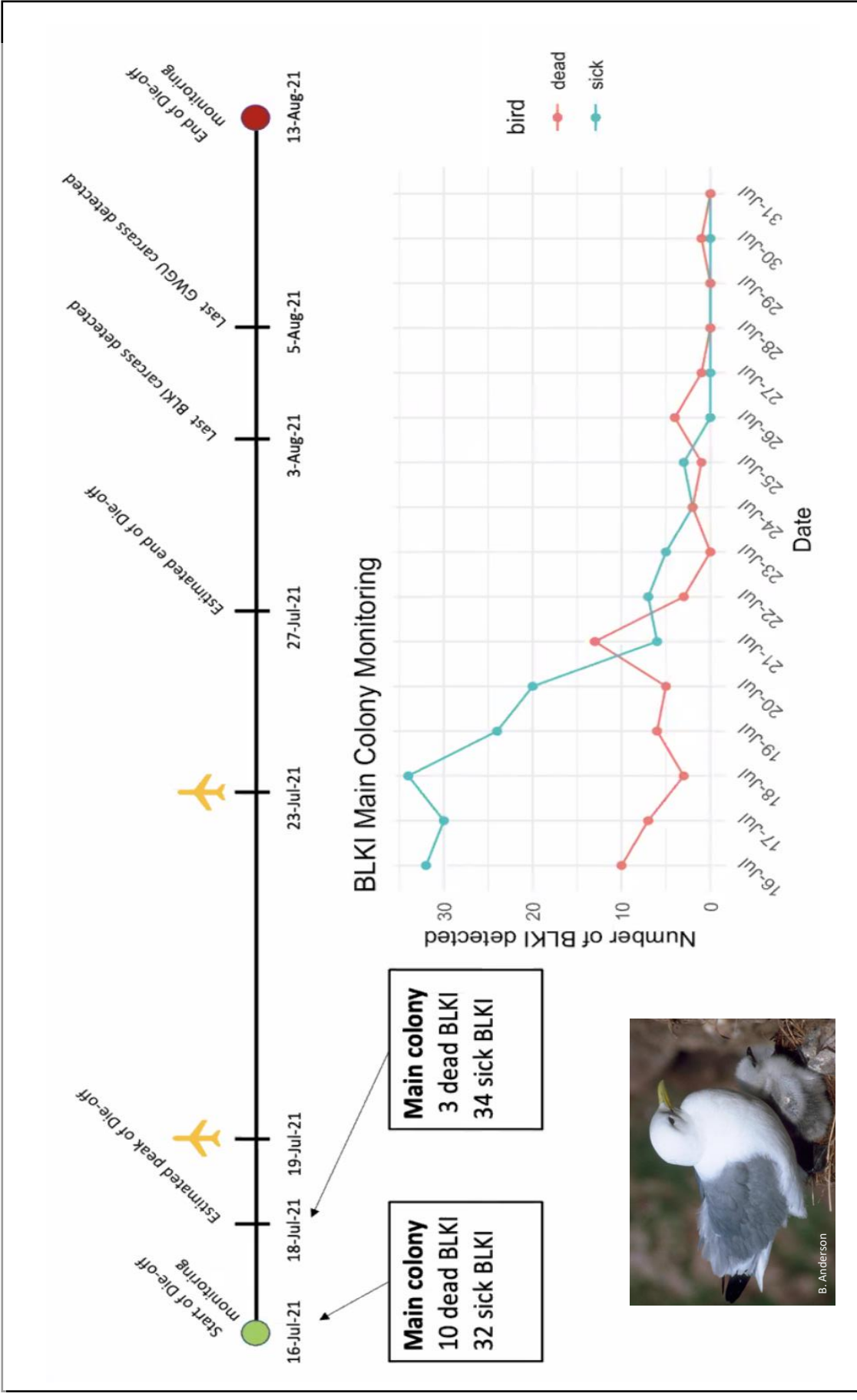
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Middleton Island/Gulf of Alaska Kittiwake Die-off

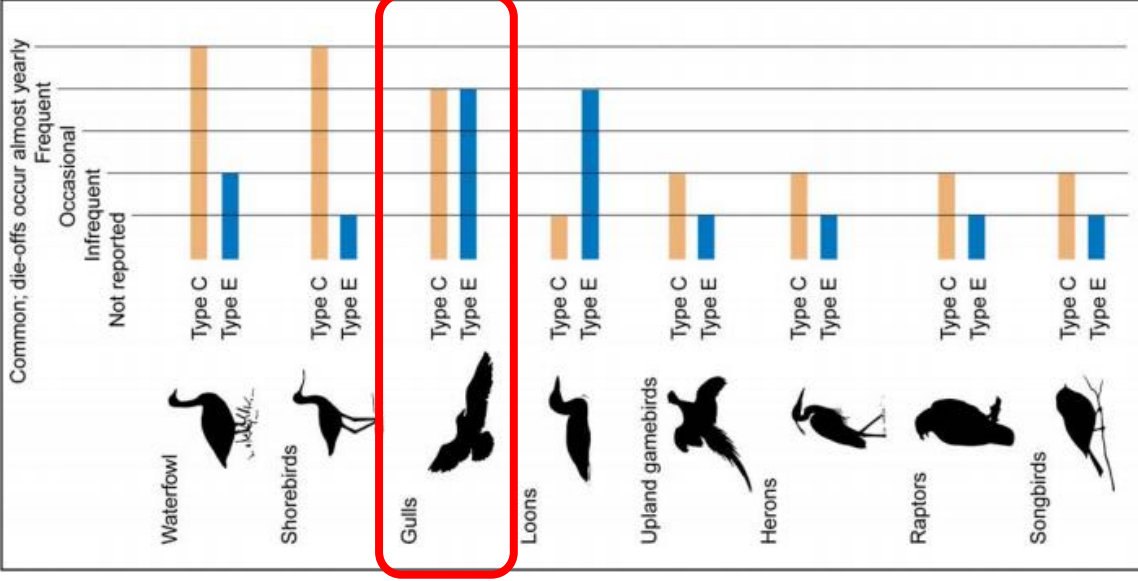


Frequency of botulism in wild birds (USGS 1999)

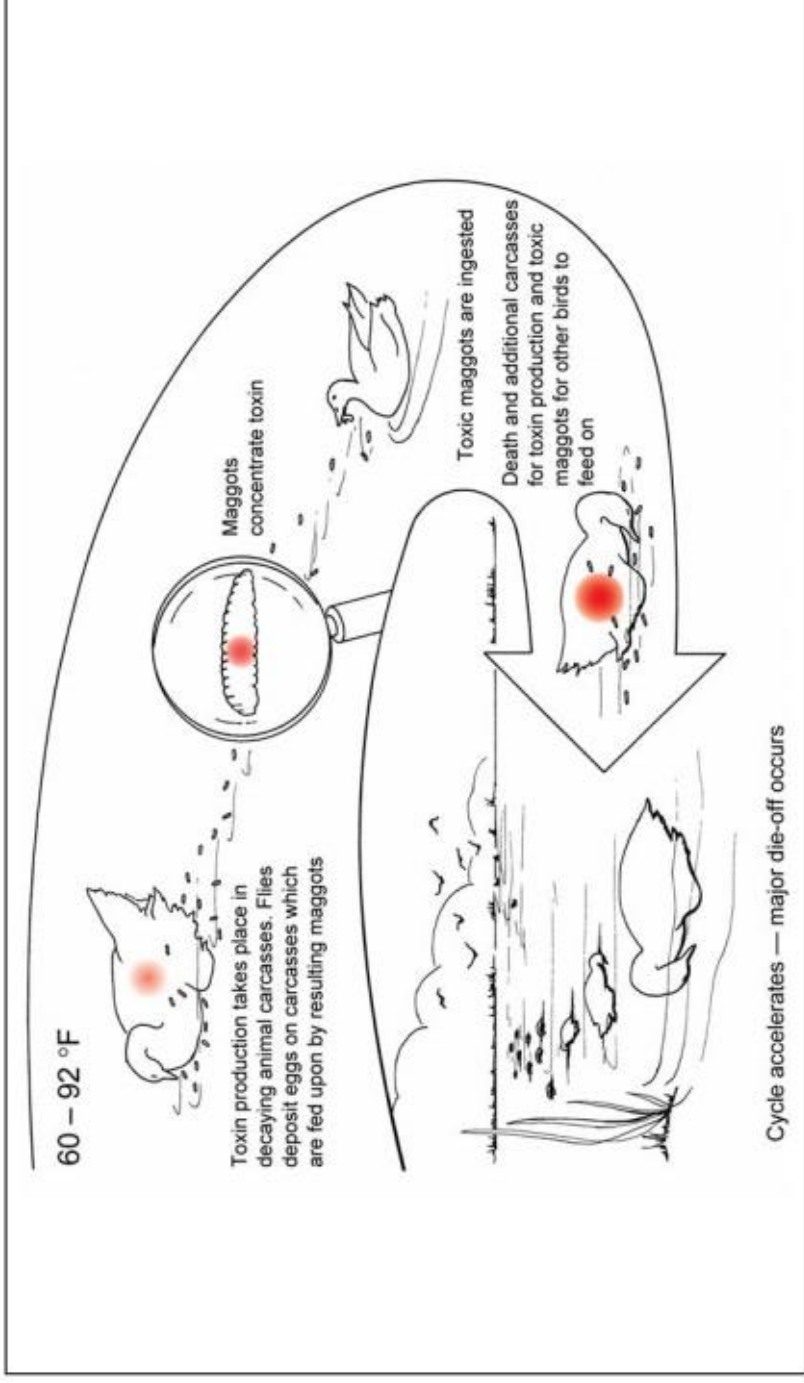


Credit: F. Tremblay, McGill University

Middleton Island/Gulf of Alaska Kittiwake Die-off



Frequency of botulism in wild birds (USGS 1999)



Carcass-maggot cycle of Avian Botulism (USGS 1999)

Avian Botulism Type C is concentrated in aquatic invertebrates that filter feed sediments or water and is specific to birds and **does not affect humans**. The Alaska Department of Fish and Game has posted information on their web site for Hot topics and Wildlife Disease pages:

<http://www.adfg.alaska.gov/index.cfm?adfg=hottopics.main>

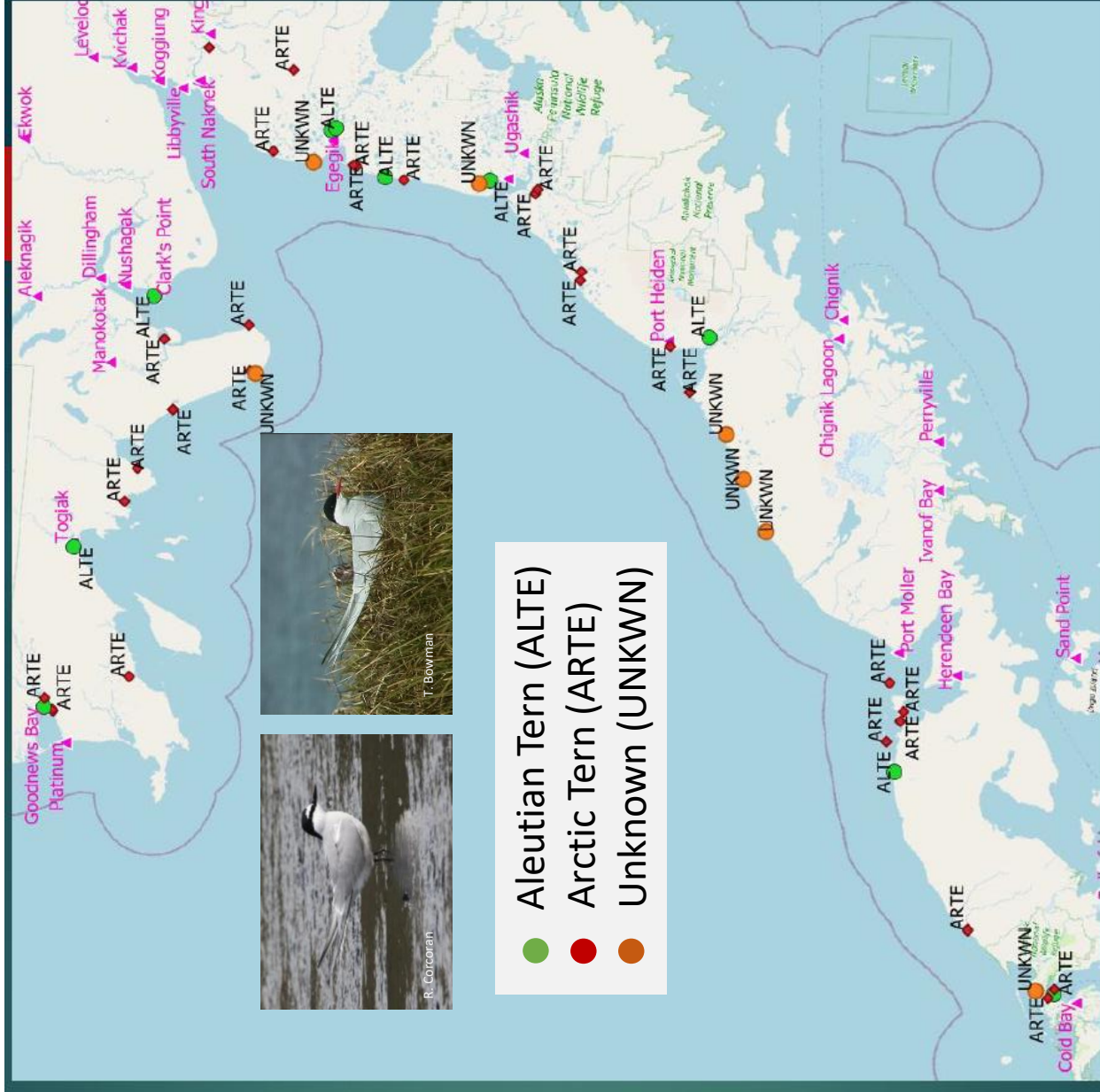
<http://www.adfg.alaska.gov/index.cfm?adfg=disease.main>

Aleutian Tern Pilot Aerial Survey, Bristol Bay, 8-29 June 2021

Colonies

- ▶ 49 colonies detected
- ▶ 10 ALTE
- ▶ 32 ARTE
- ▶ 7 UNKWN
- ▶ Aerial counts:

Species	Minimum Count	Maximum Count	Mean Count
ALTE	2	100	31.7
ARTE	5	1200	78.9
UNKWN	4	13	7.6



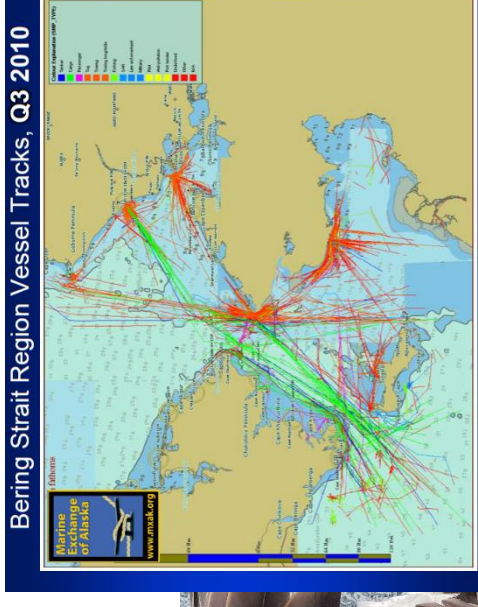
Monitoring & reducing eider & other sea duck vessel strikes



- * Collaboration: USFWS, NOAA, Industry, Researchers
- * Two projects using AIS & seabird data for analysis
- * FWS/ES guidelines for 'best practices'
- * Goal: How to mitigate & avoid vessel strikes

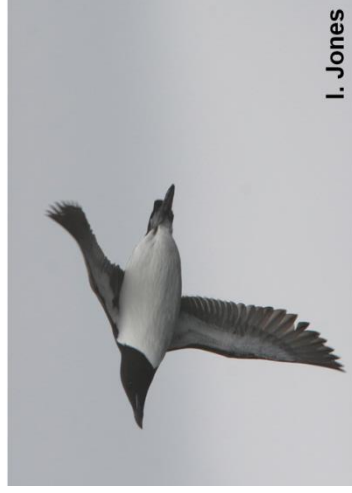
An important consideration: Increased vessel traffic in the Arctic

- Shipping (LNG, oil, cargo)
- Fishing – moving north
- Oil/gas exploration & development
- Military Activity
- Tourism





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