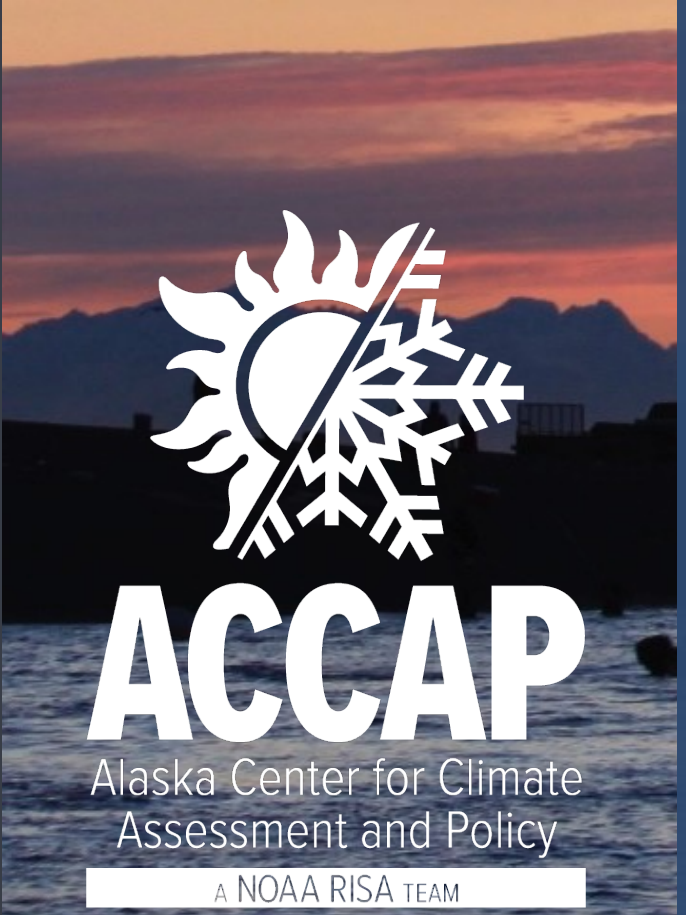


ACCAP
Alaska Center for Climate Assessment and Policy
A NOAA RISA TEAM

Arctic Report Card and 2022 Highlights

Rick Thoman • Climate Specialist

Alaska Center for Climate Assessment and Policy
@ International Arctic Research Center on the UAF Troth Yeddha' Campus

UNIVERSITY OF ALASKA FAIRBANKS

International Arctic Research Center

Presentation overview

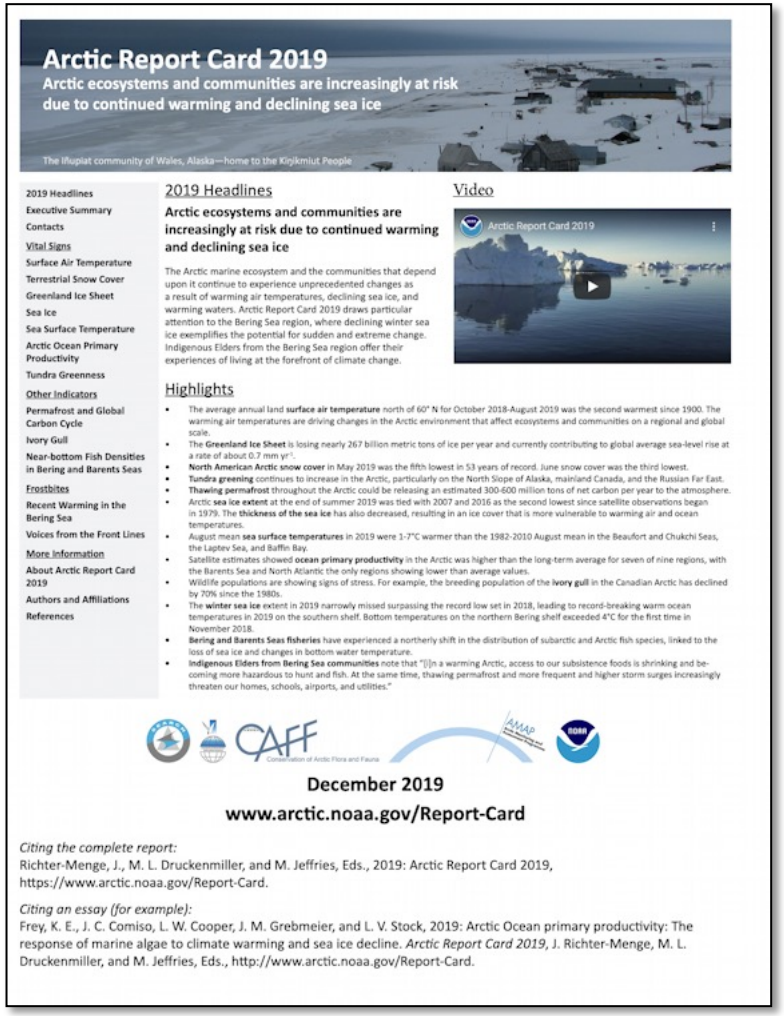
1. Behind the curtain: how do they do that Arctic Report Card thing
2. 2022 Arctic Report Card Highlights
3. John Walsh: new essay on precipitation
4. Robb Kaler: Seabird Die-offs in Alaska

Arctic Report Card Basics

Timely & peer-reviewed source for clear, reliable, and concise information on the current state of environmental components of the Arctic system

Intended for a wide audience including scientists, teachers, students, decision-makers and policymakers

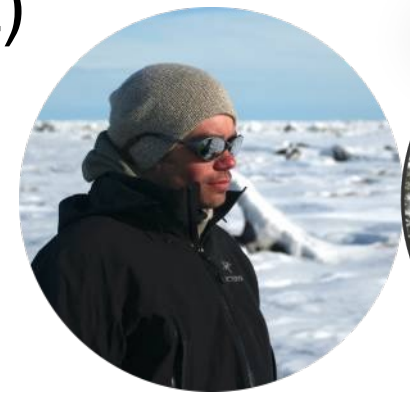
- Annually since 2006
- Supported by NOAA…but NOT focused on NOAA activities
- Evolving content & format



Arctic Report Card Editorial Team

- Coordinating Editor
  - Kelley Uhlig (2019-present)

- General Editors (2021-present)
  - Matthew Drukenmiller (NSIDC)
  - Twila Moon (NISDC)
  - Rick Thoman (UAF)

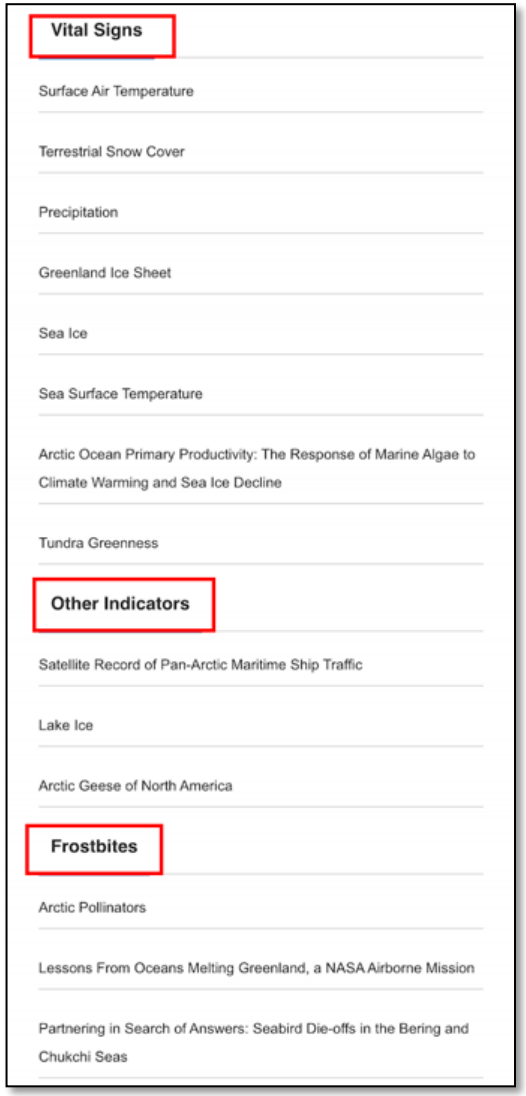


Arctic Report Card Structure

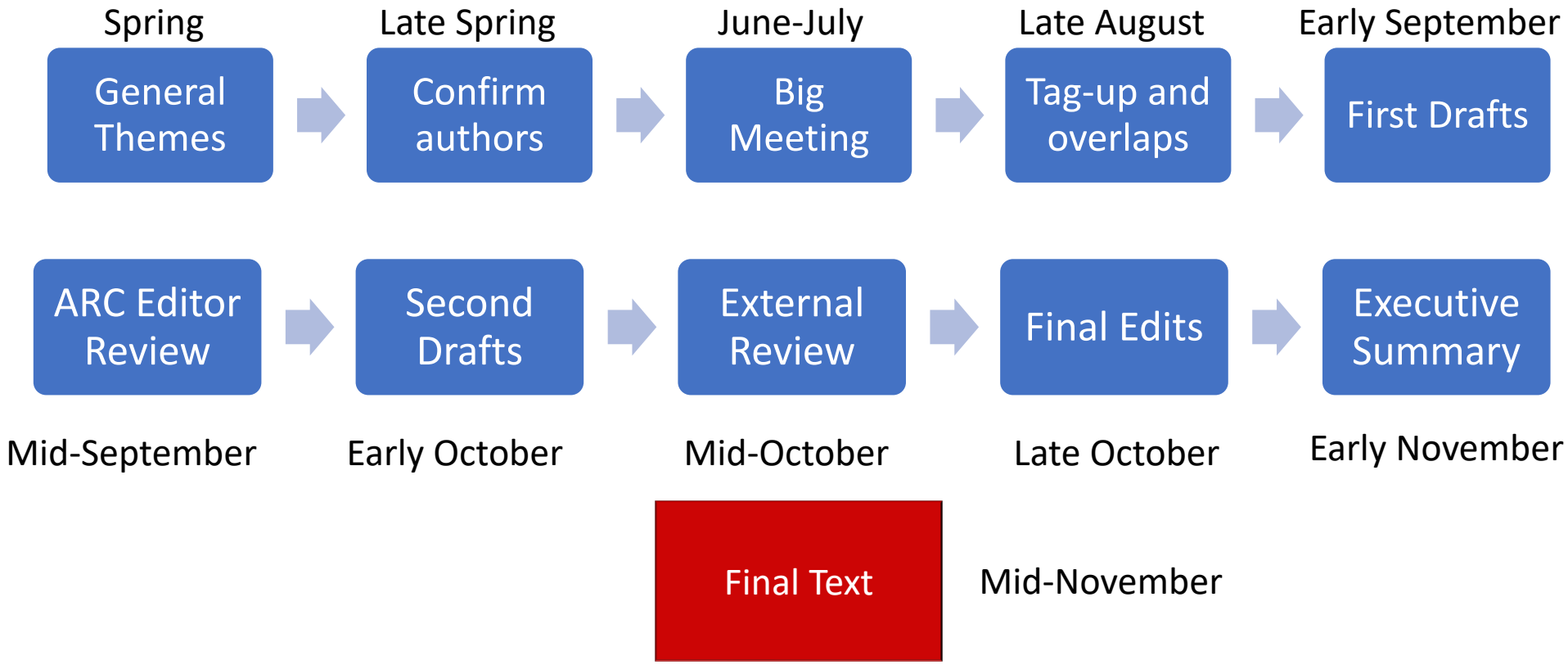
- Web and Video
  - Integral to today's Arctic Report Card
  - Led by NOAA experts
- NOAA Communications
  - Coordinates AGU Rollout
  - Media
  - Agencies

Arctic Report Card Content

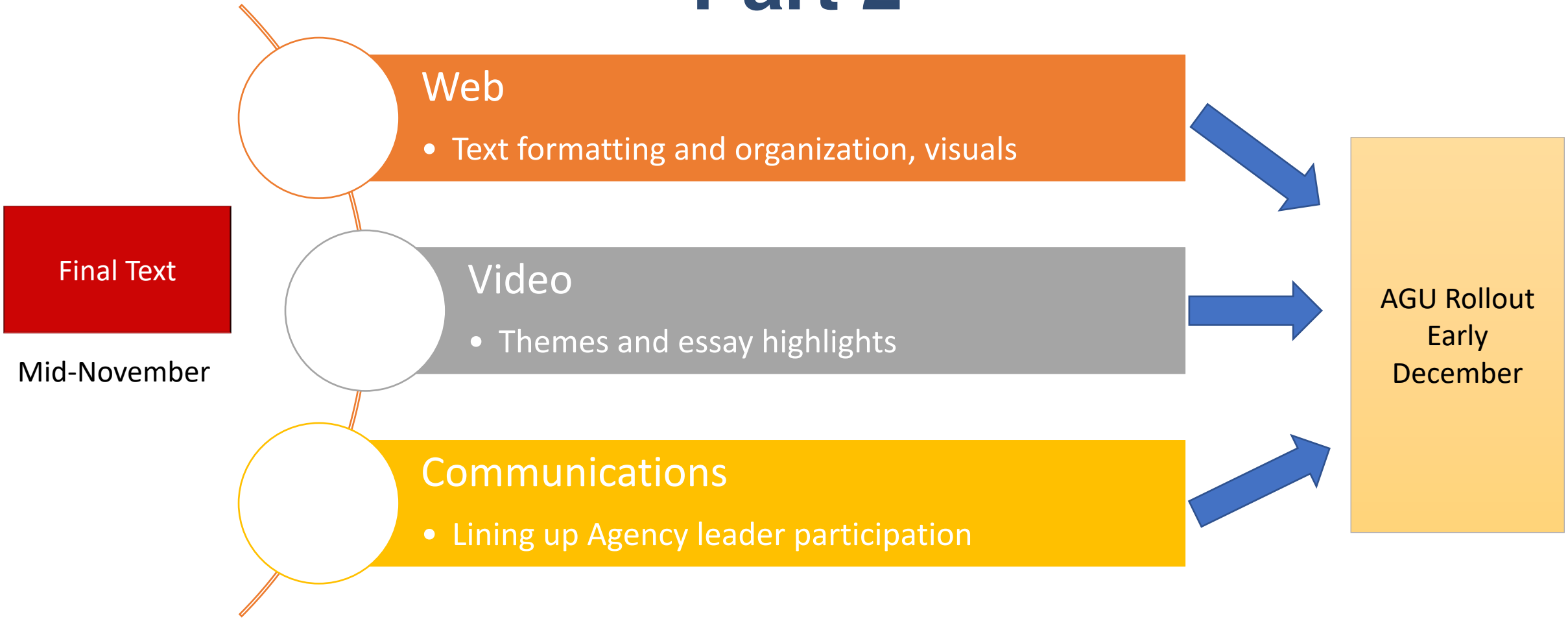
- Vital Signs
  - Annual updates on seven (now eight) recurring topics
- Indicators
  - Topics updated every 2-4 years
- Frostbites
  - New and newsworthy items



Arctic Report Card Timeline Part 1



Arctic Report Card Timeline Part 2



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International Arctic Research Center

Arctic Report Card 2022

- Primary focus: October 2021 through September 2022
- 15 essays
- 147 Authors from 11 countries
- Released at AGU December 13, 2022

15 essays,147 authors from 11 countries

Arctic Report Card Video

https://www.youtube.com/watch?v=MDG-moe0tZs

2022 NOAA Arctic Report Card

The warming Arctic reveals shifting seasons, widespread disturbances, and the value of diverse observations

- 147 Authors from 11 countries
- 15 essays, including a highlight on the Impacts of Arctic Change on People

Vital Signs

Surface Air Temperature

Terrestrial Snow Cover

John Walsh will talk about→ Precipitation

Greenland Ice Sheet

Sea Ice

Sea Surface Temperature

Arctic Ocean Primary Productivity

Tundra Greenness

Indicators

Pan-Arctic Shipping

Lake Ice

Arctic Geese

Frost Bites

Arctic Pollinators

NASA's Oceans Melting Greenland

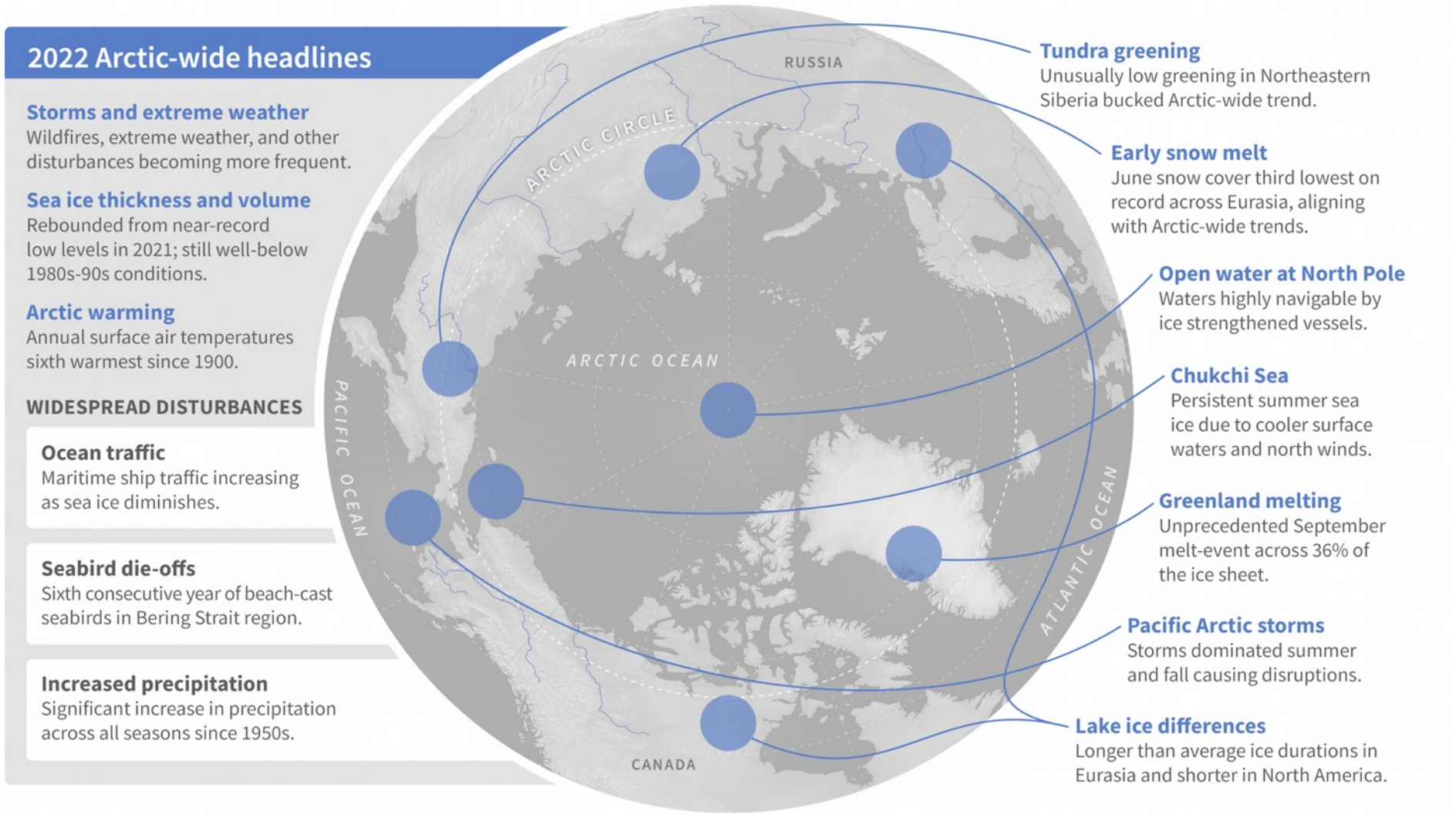
Seabird Die-offs in the Bering and Chukchi Seas

Consequences of Rapid Environmental Arctic Change for People

NOAA — National Oceanic and Atmospheric Administration — U.S. Department of Commerce

2022 NOAA ARCTIC REPORT CARD

Arctic Report Card Highlights



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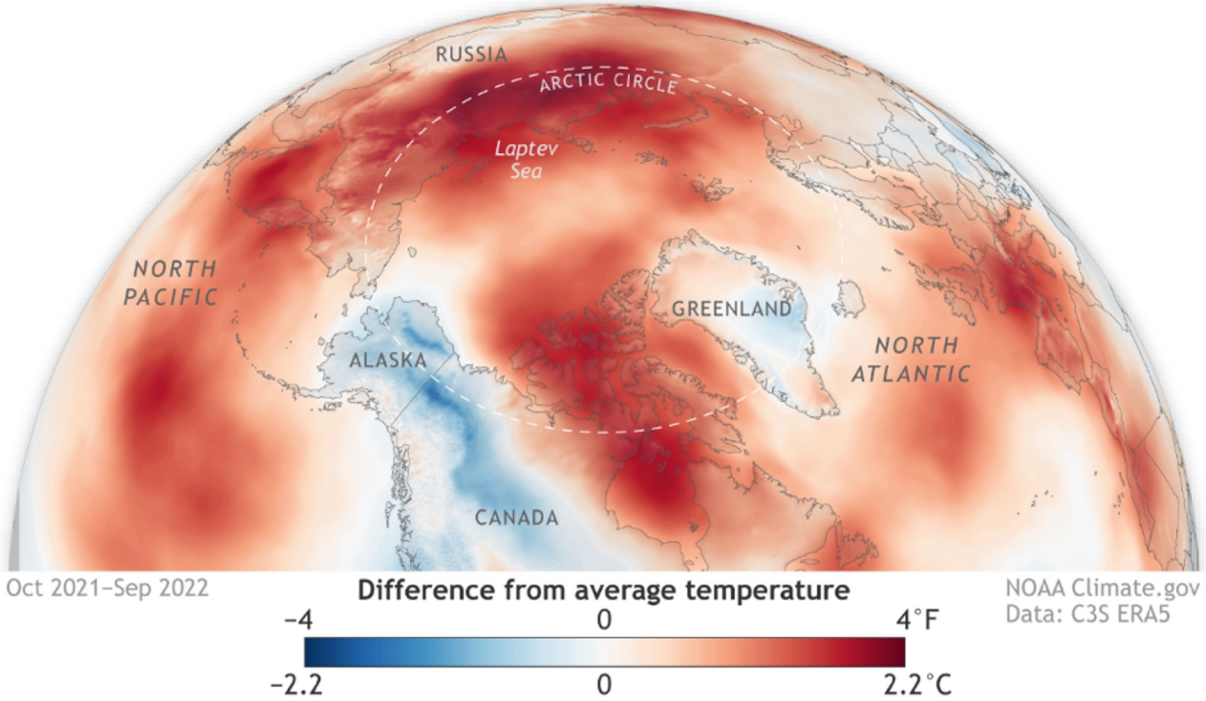
International Arctic Research Center

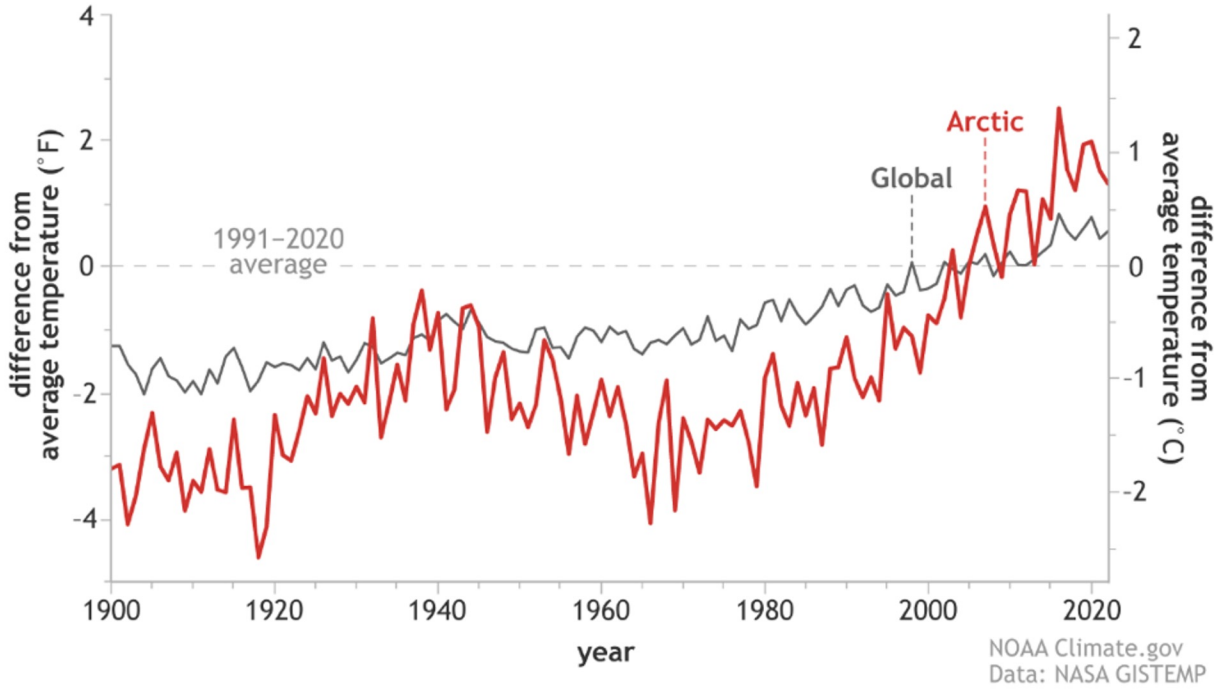
2022 NOAA Arctic Report Card

The warming Arctic reveals shifting seasons, widespread disturbances, and the value of diverse observations

2022 was Arctic's 6th-warmest year on record

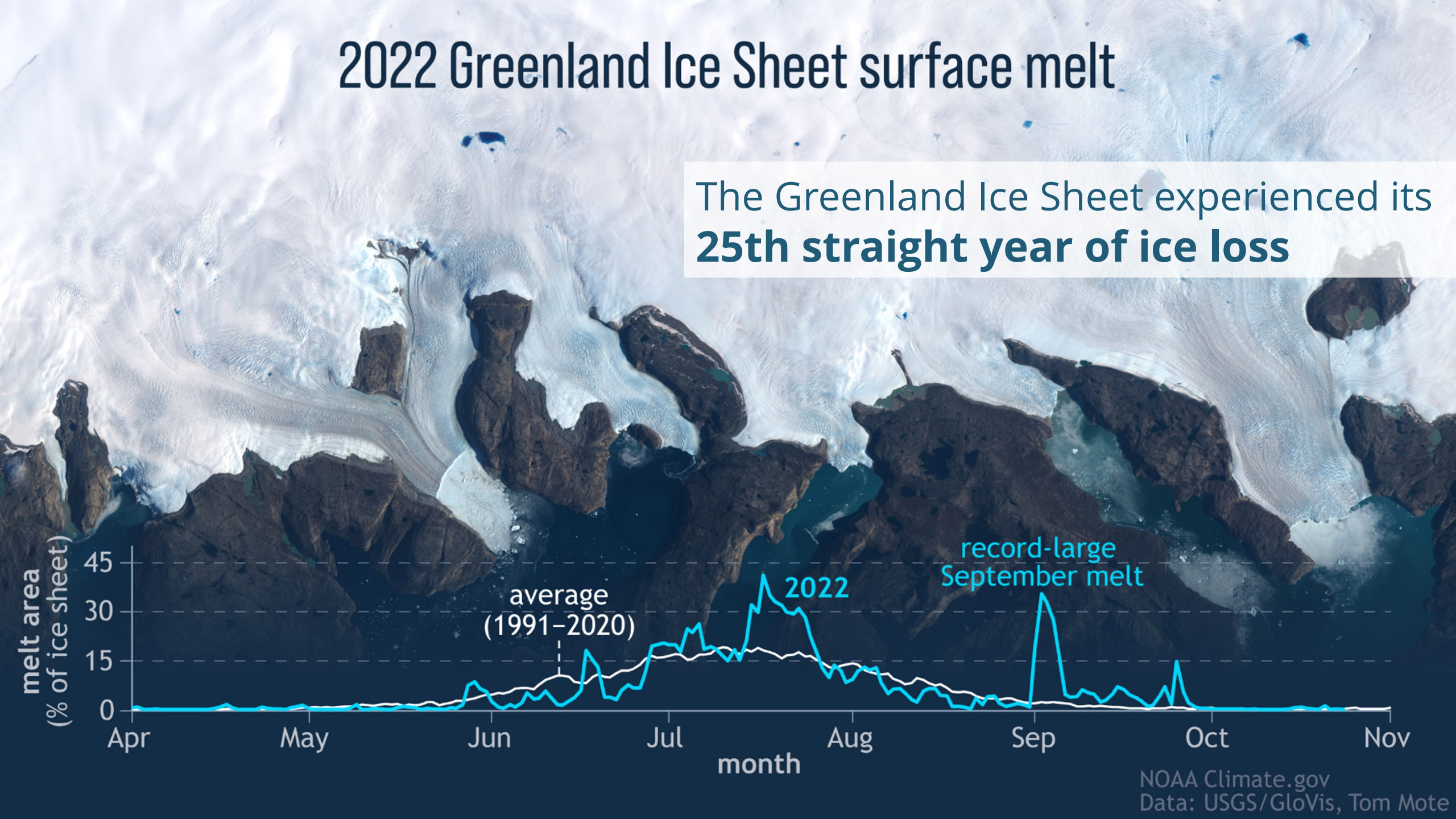


Arctic warming outpacing the global average



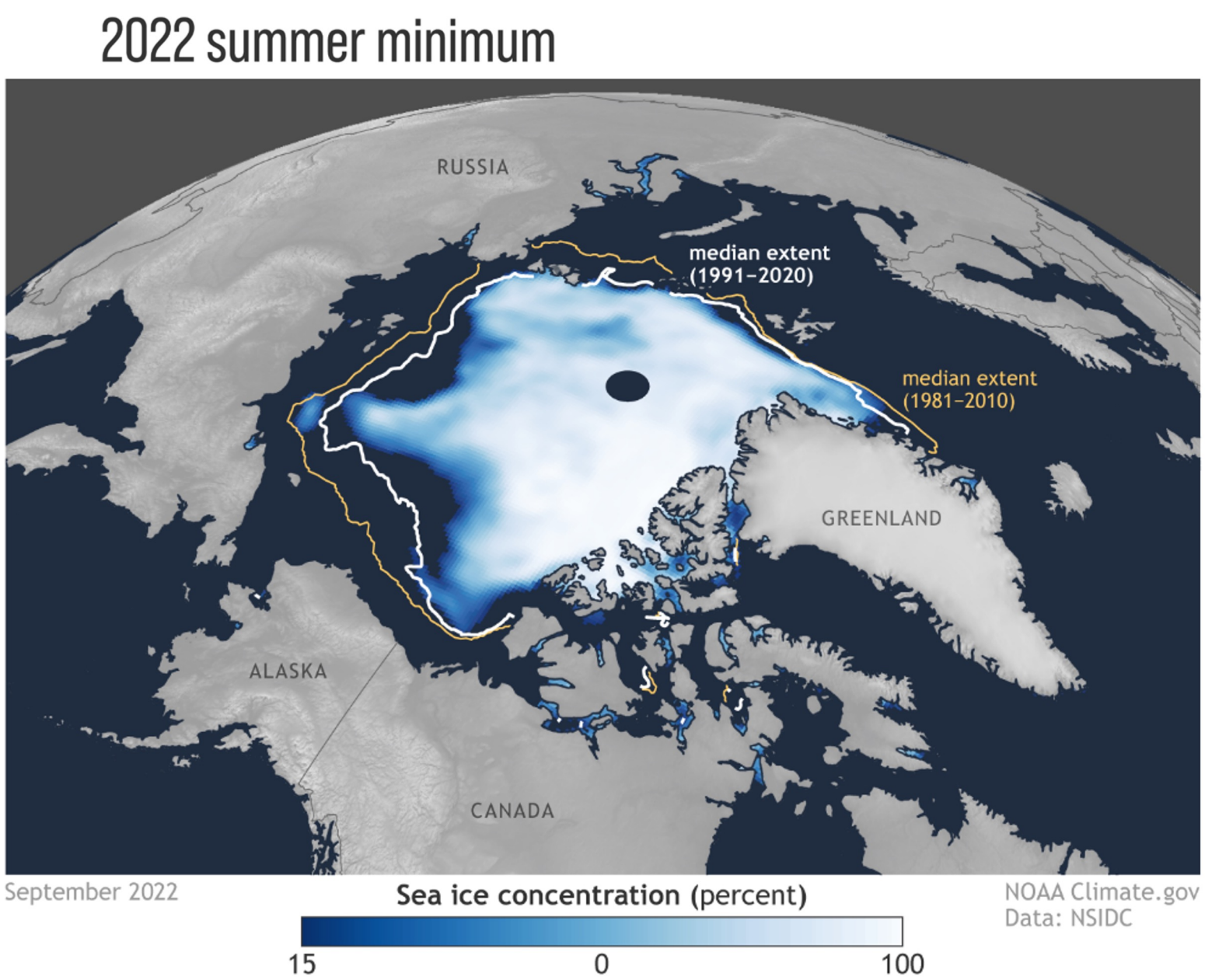
2022 Greenland Ice Sheet surface melt

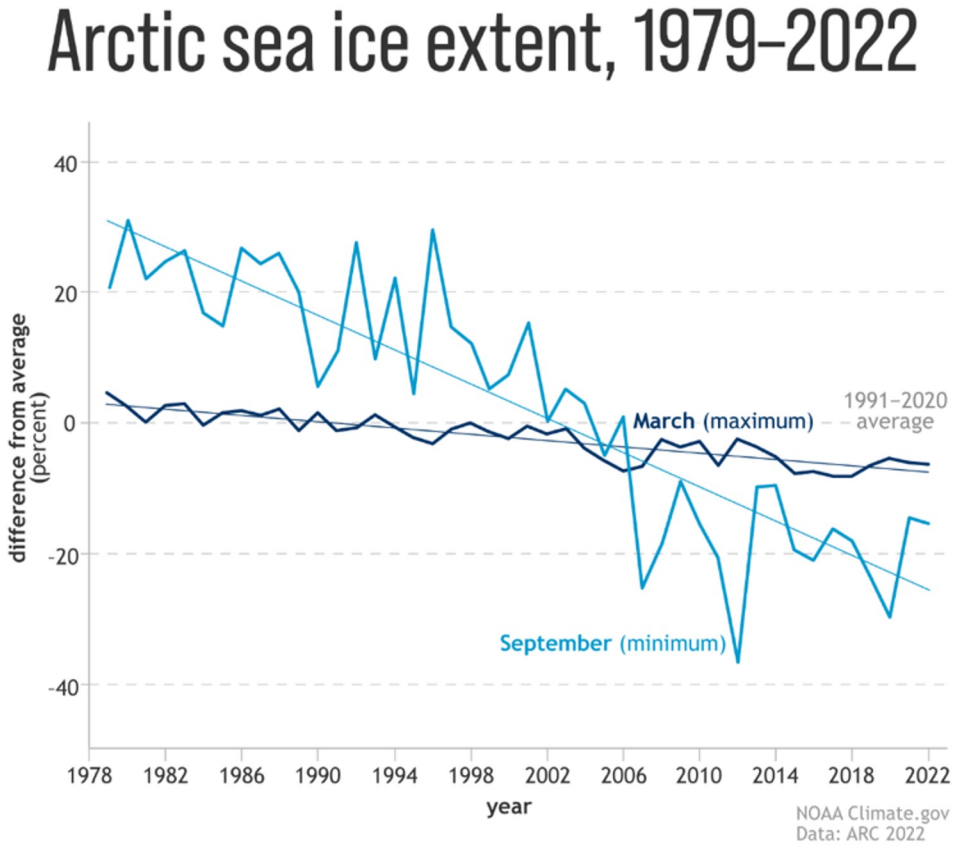
The Greenland Ice Sheet experienced its **25th straight year of ice loss**



NOAA Climate.gov
Data: USGS/GloVis, Tom Mote

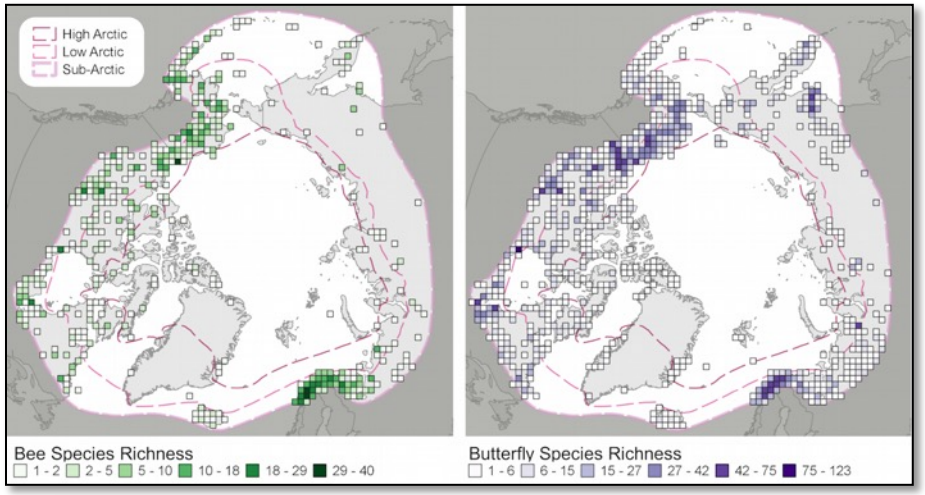
2022 Arctic **sea ice extent** was similar to 2021 and **well-below** the long-term average





Arctic Report Card 2022 Frostbites

- Seabird Die-offs (Robb will talk about this)
- Arctic Pollinators
  - The wide scope of the Arctic Report Card
- Oceans Melting Greenland
  - Important project summary
- Consequences of Rapid Environmental Arctic Change for People
  - Why these changes matters



Addressing unprecedented Arctic environmental changes requires **hearing one another**, **aligning values**, and **collaborating across knowledge systems**, disciplines, and sectors of society

https://arctic.noaa.gov/Report-Card/Report-Card-2022

Photos by ANTHC