

Welcome to Alaska - and a challenge to adapt

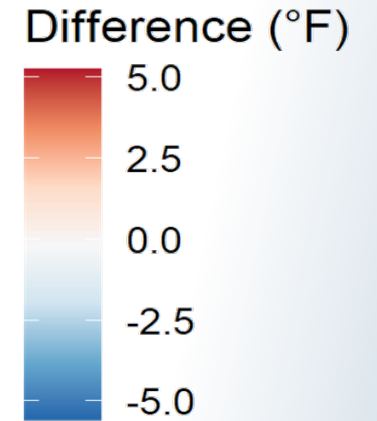
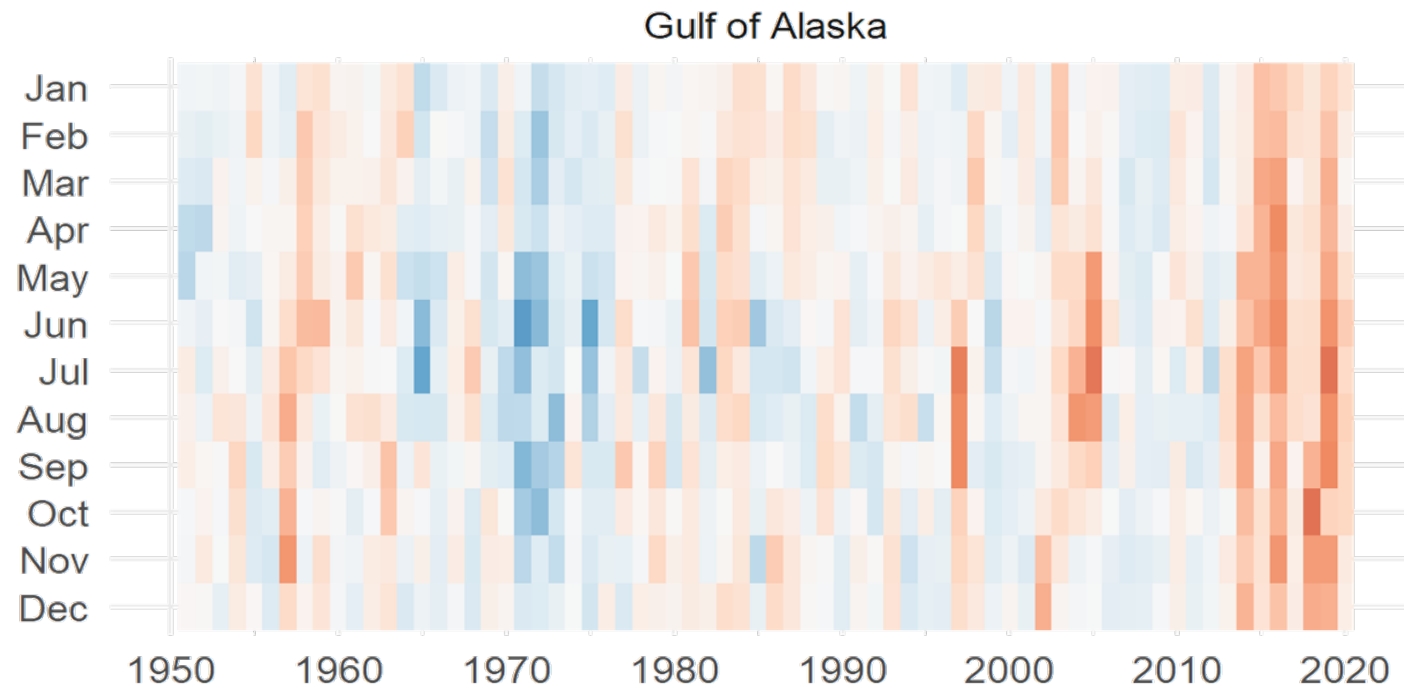
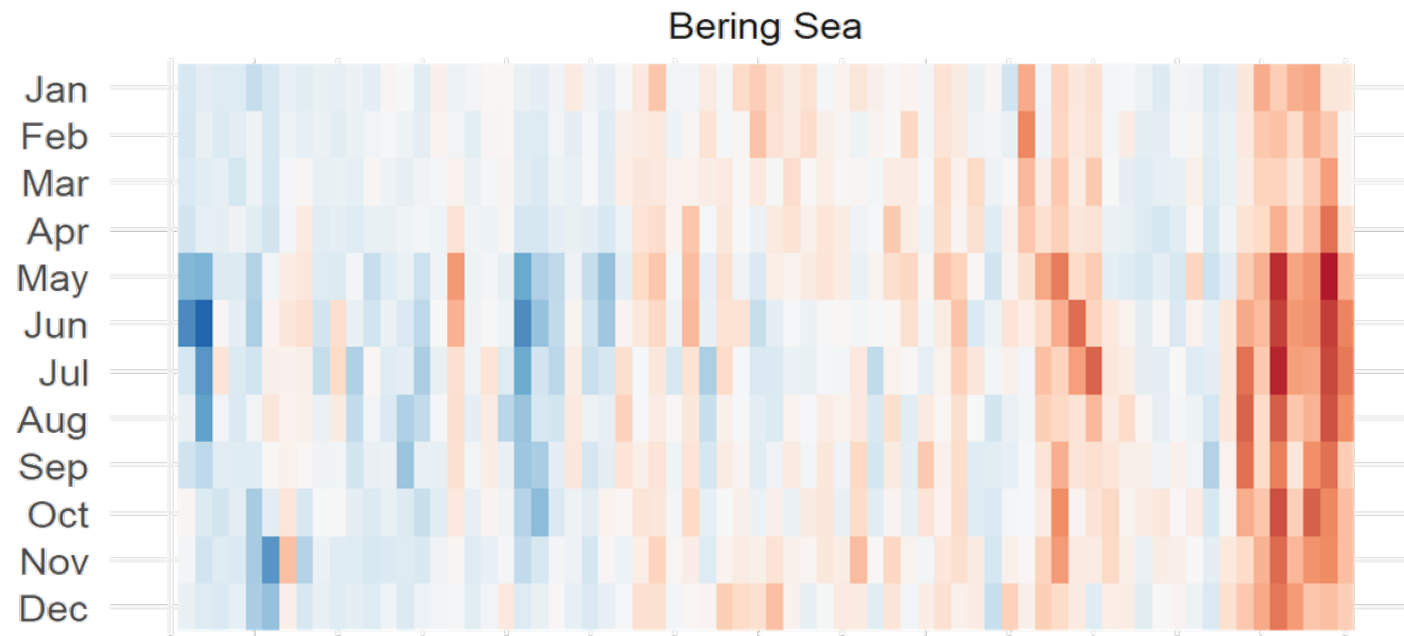


Robert Foy
AFSC Research and Science Director

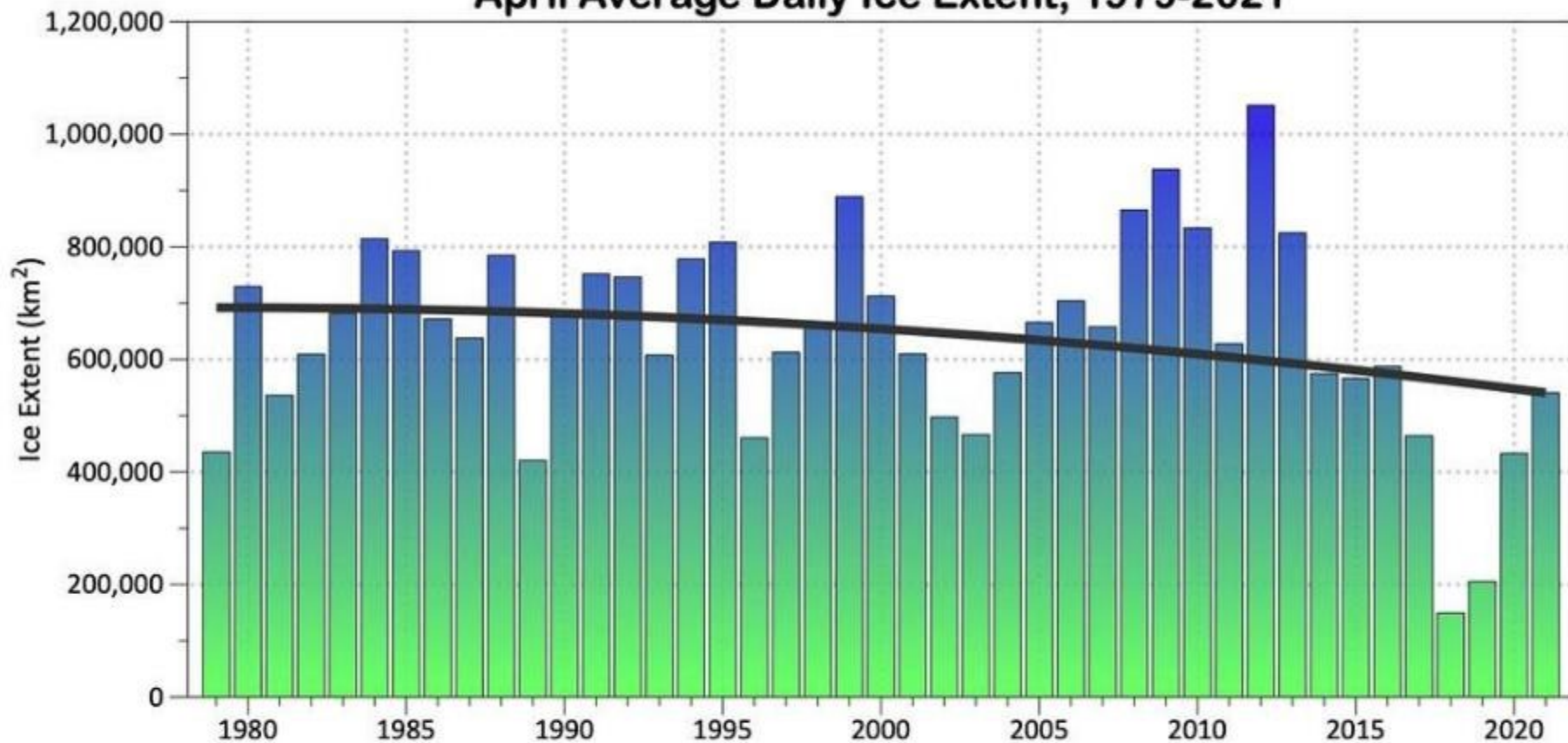
7th National Scientific Coordination Subcommittee Meeting
August 2022



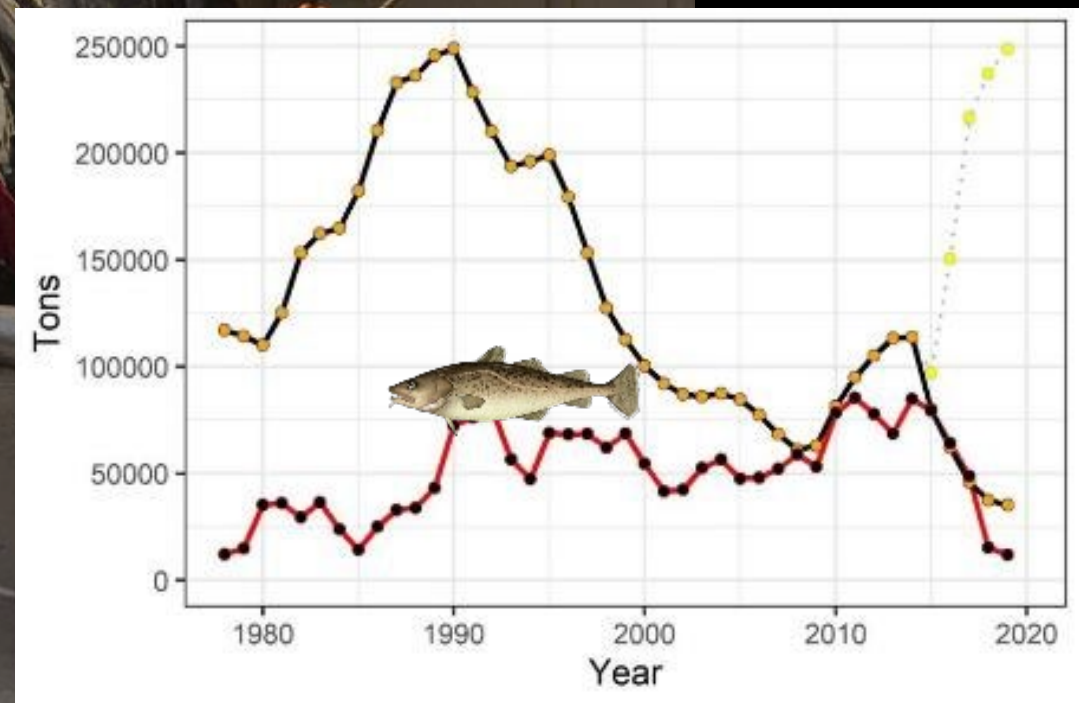
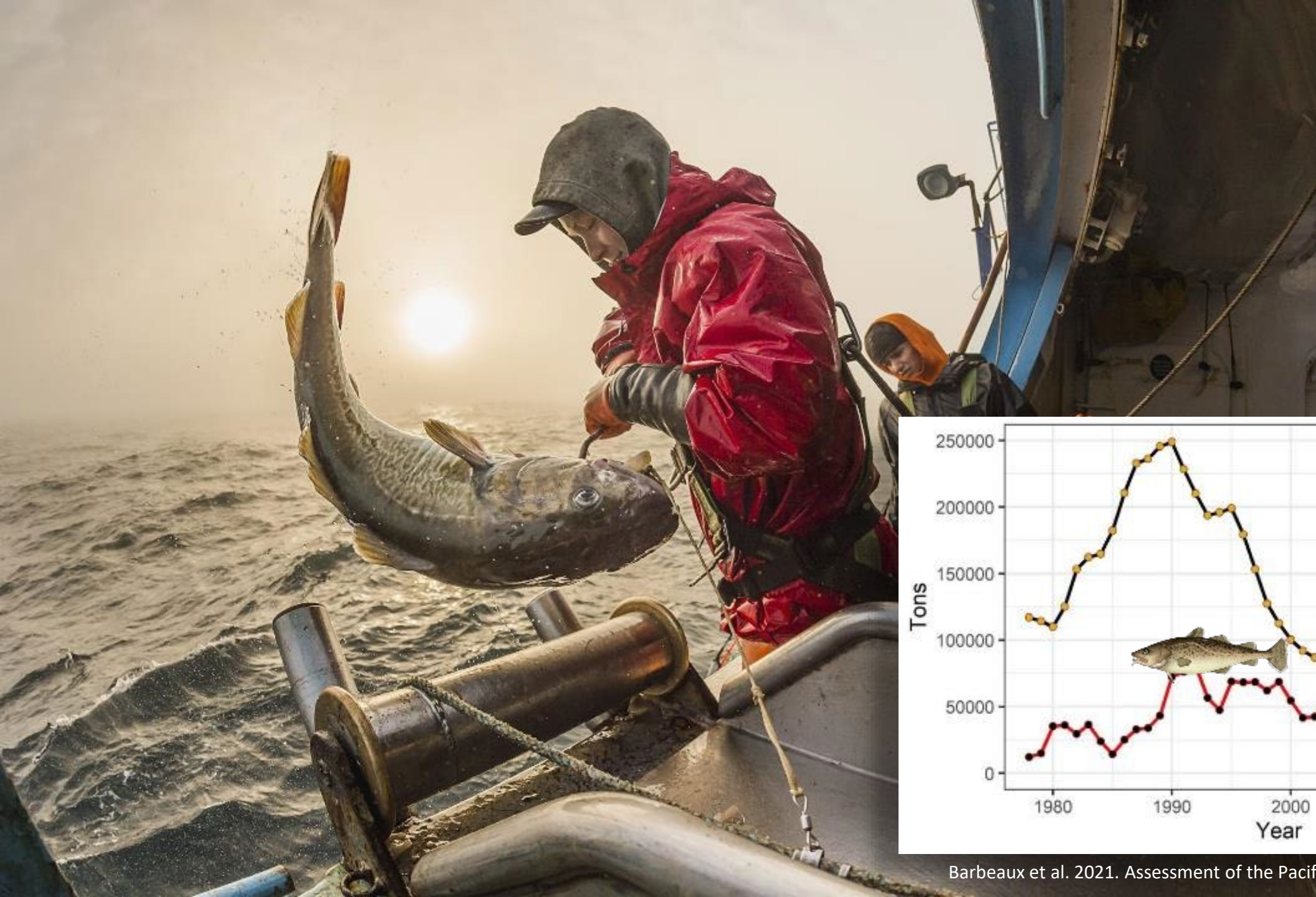
Alaska Sea Surface Temperature

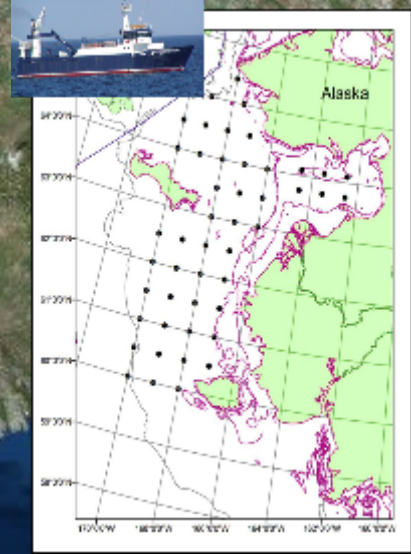
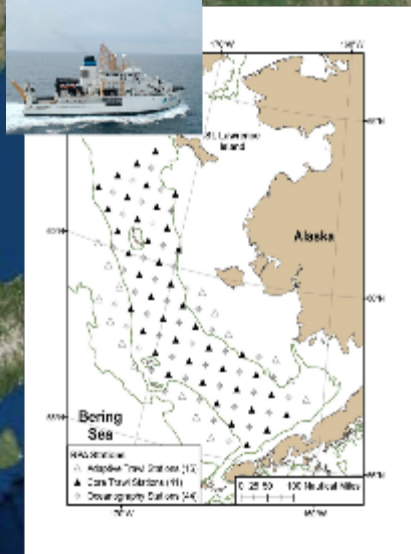


Bering Sea April Average Daily Ice Extent, 1979-2021

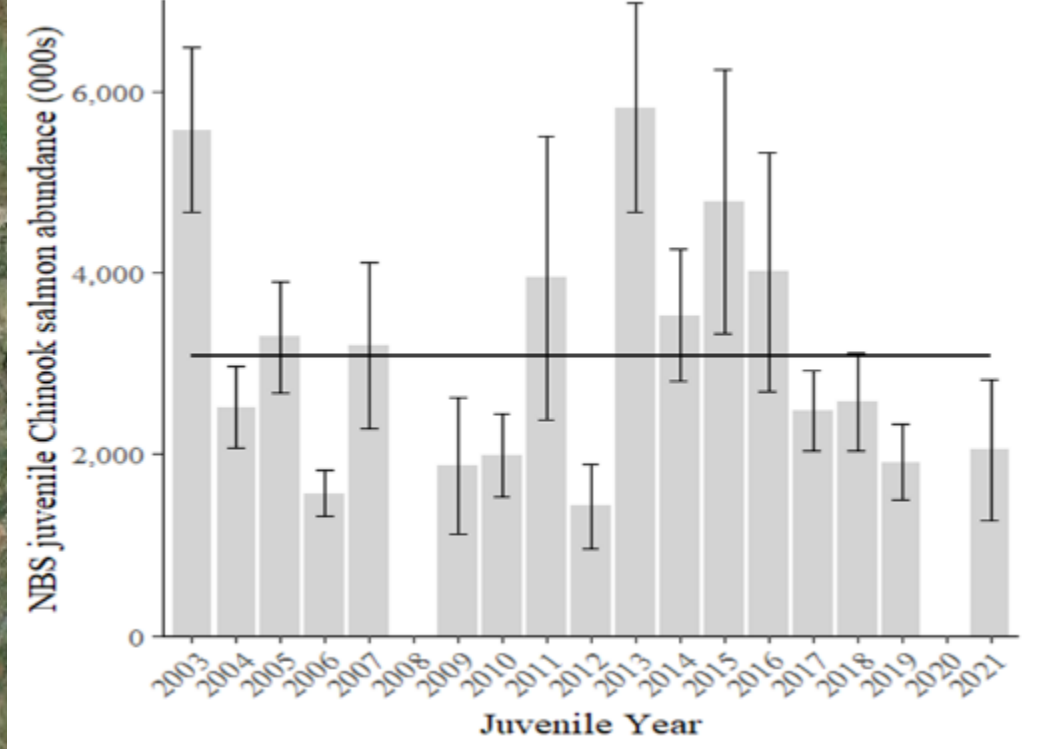


Gulf of Alaska Pacific Cod





Chukchi Sea



Western AK Chinook



Bering Sea

Gulf of Alaska

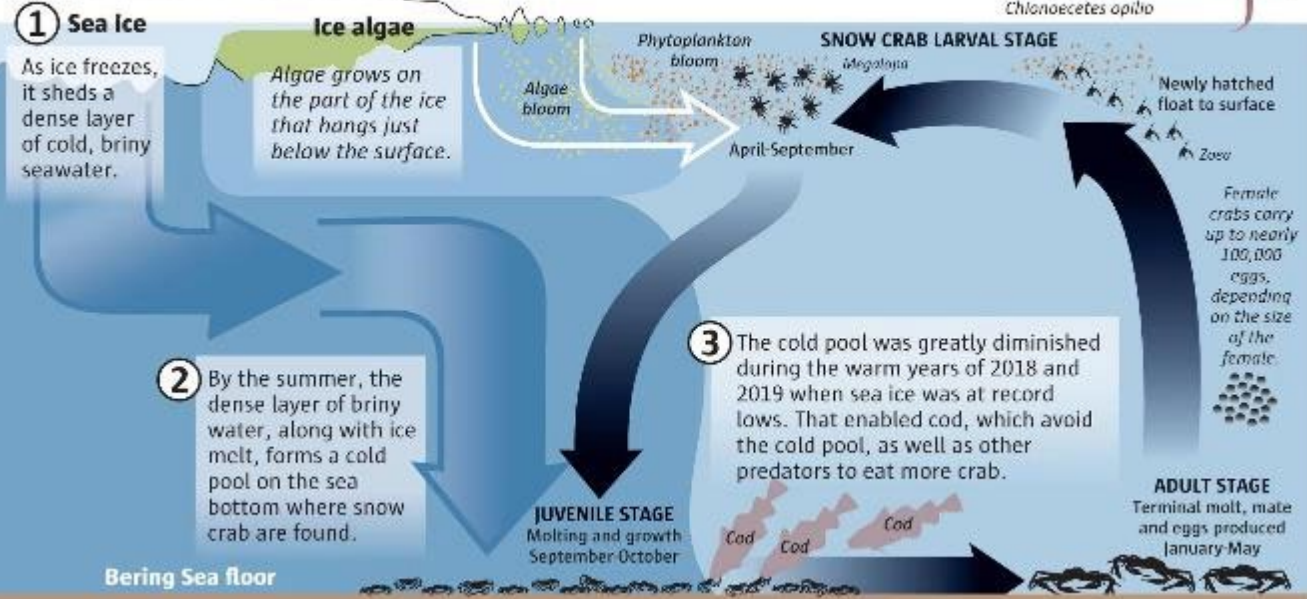


Western AK Chum



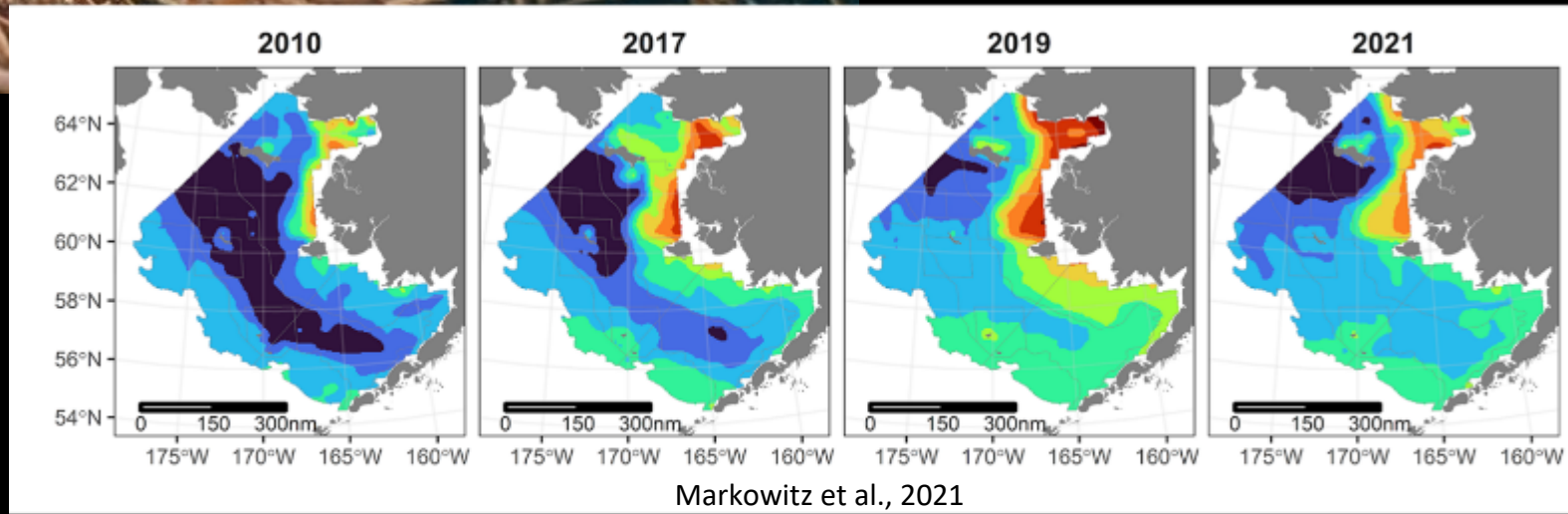
How sea ice helps sustain Bering Sea snow crab

Snow crab typically dwell in a bottom layer of cold water that provides protection from predators. That cold pool shrank drastically during recent warming.



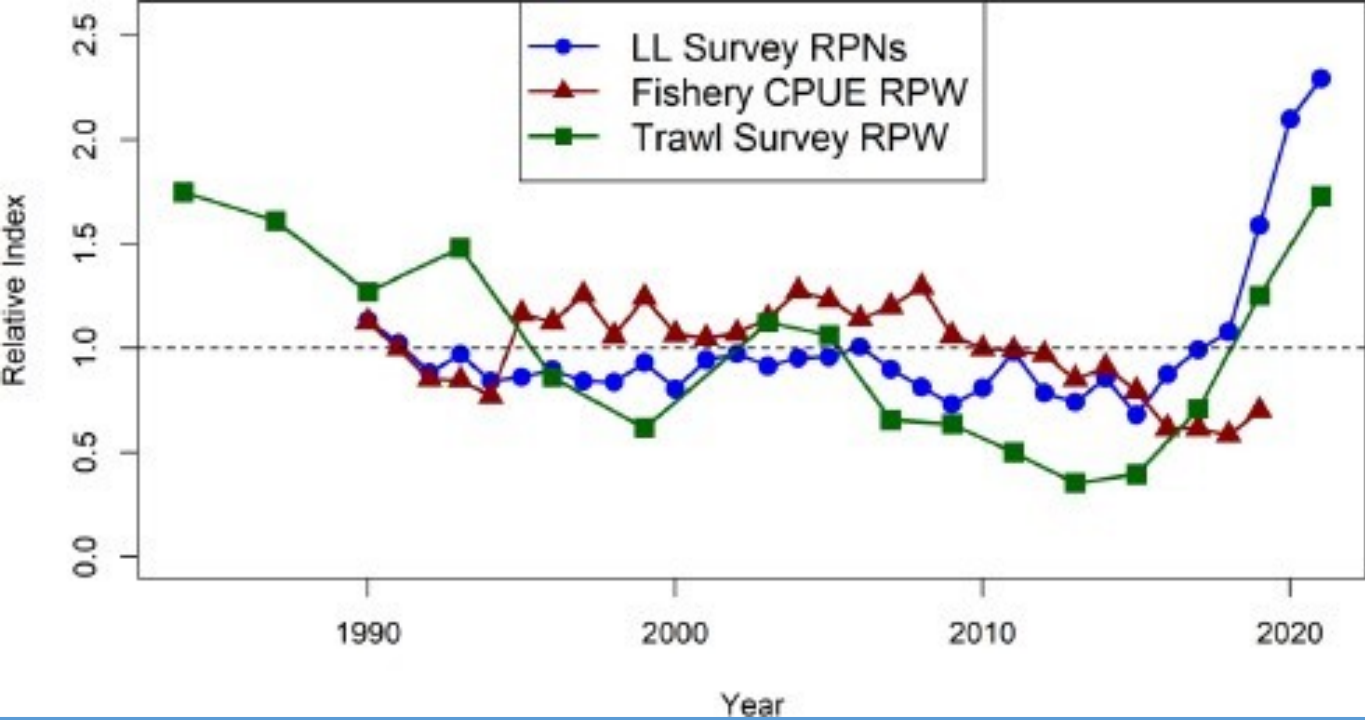
Source: Aug. 23, 2019, presentation by Janet Duffy-Anderson, NOAA/Alaska Fisheries Science Center

MARK NOWLIN / THE SEATTLE TIMES

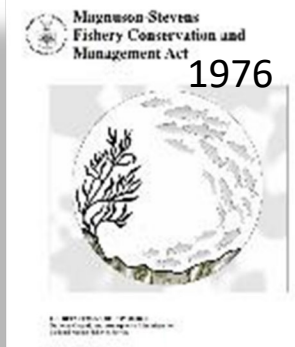


Bottom Temperature (°C)





Alaska - Climate Informed Science for Management



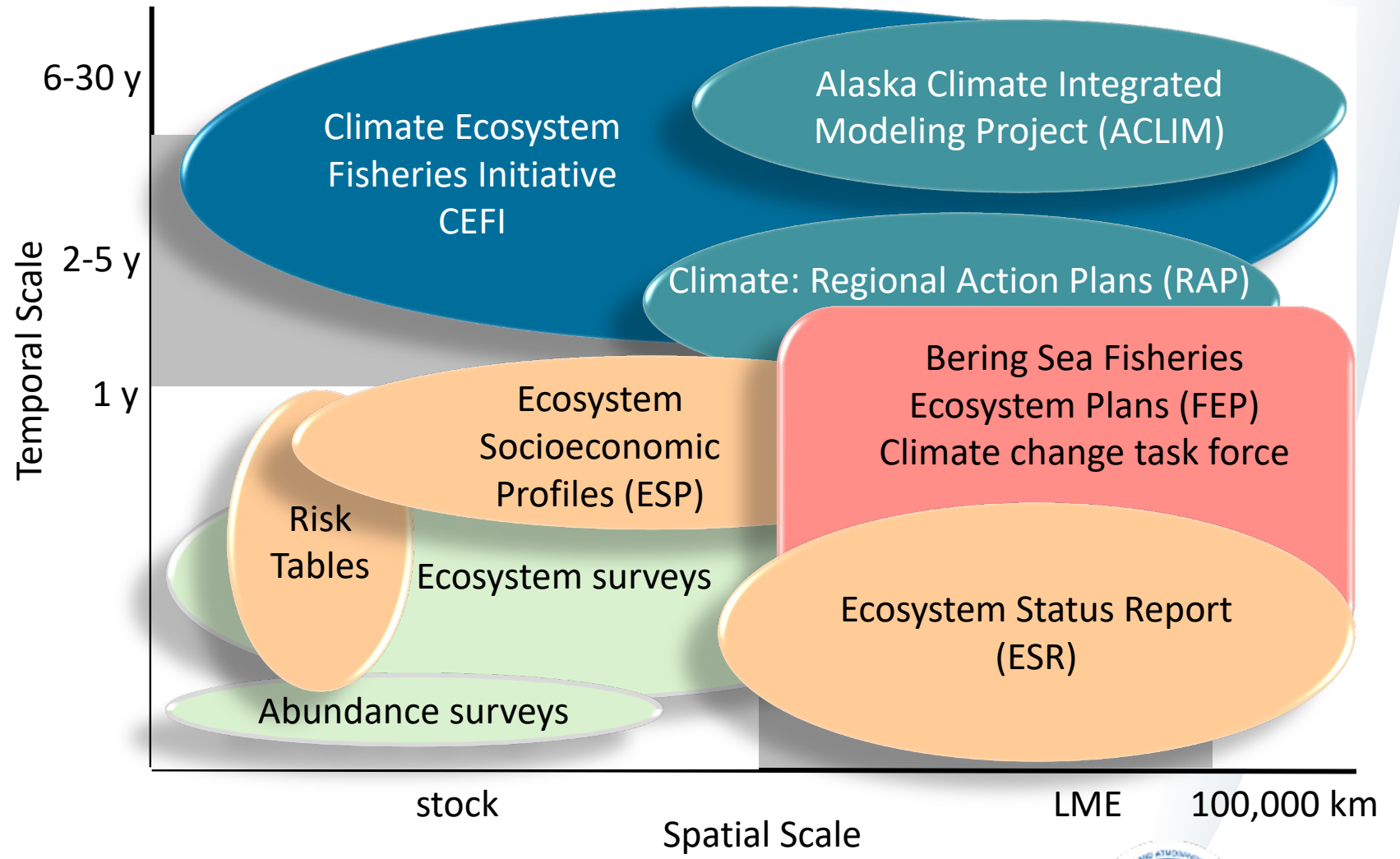
- Ecosystem Based Management Policy



- FEP
- ESR
- ESP



- RAPs
- FEP-CCTF
- ACLIM
- CFI



Challenges to consider this week

...with some Alaskan examples



Challenge 1: Plan and Predict for Resilience

Can we manage for 5-10 years in advance instead of 1-2 years?



Challenge 2: Identify a balanced science portfolio

Fish & Crab Surveys

Socio-economic Research

Ecosystem Surveys

Fish & Crab Stock Assessments

Bycatch Reduction Research

Fishery Monitoring

Process Studies

Ecosystem Modeling

Marine Mammal Surveys & Co-Mgt

Marine Mammal Stock Assessments

Climate Modeling for fisheries

Bering Sea Model

Nutrients

Phytoplankton

Zooplankton

Krill

Challenge 3: Incorporate innovative data

- NOAA Fisheries' Next Generation Data Acquisition Plan (10-15 year outlook).



EM Innovation



Eastern and Northern Bering Sea



F/V Alaska Knight (US Seafoods)

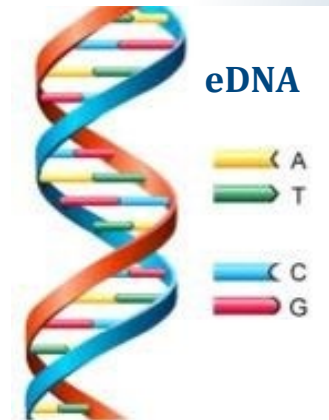
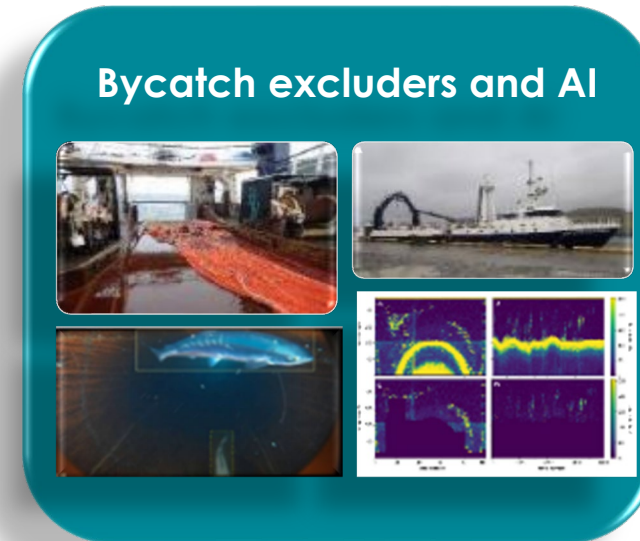


F/V Alaska Provider (US Seafoods)



F/V Ocean Explorer (B&N Fisheries)

Bycatch excluders and AI



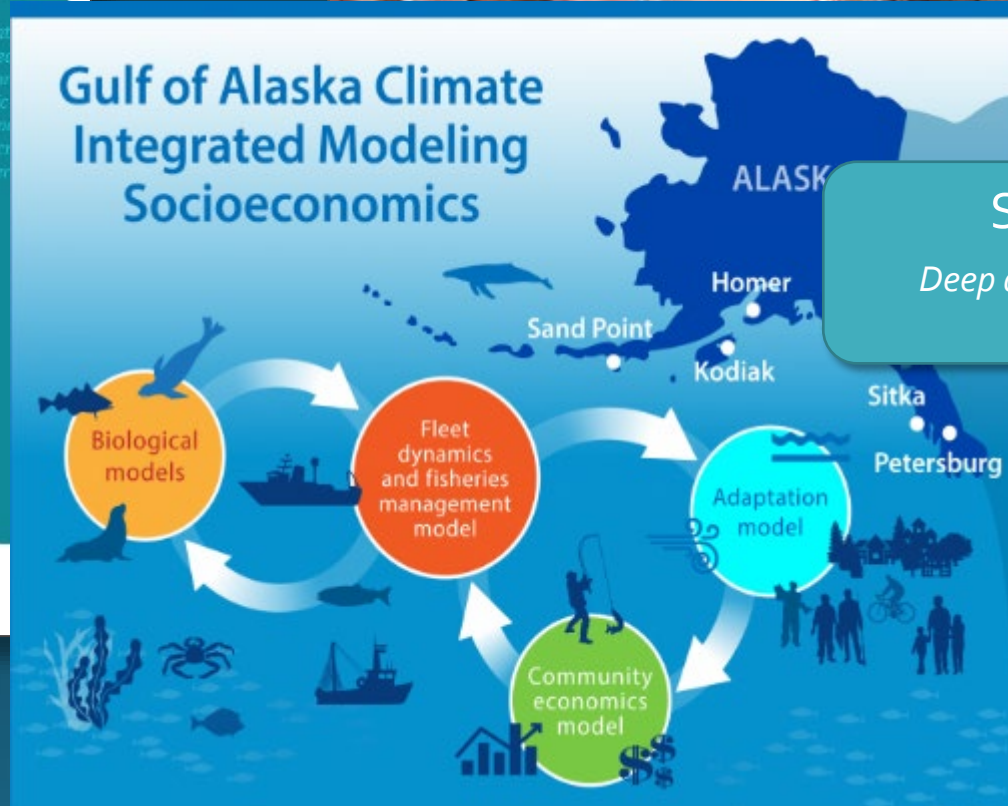
NOAA
FISHERIES

Challenge 4: Improve equity in science and management

Annual Community Engagement and Participation Overview

An annual report focusing on sustained participation of those fishing communities substantially dependent on or substantially engaged in the North Pacific groundfish and crab fisheries.

NOAA FISHERIES
Alaska Fisheries Science Center
Economic and Social Science Program



Social Vulnerability Indicators
Deep dive into Highly Engaged communities and their participation in FMP groundfish fisheries.

Integrated Ecosystem Assessments (IEAs)

Have a great meeting!

“We must listen to science — and act.”
[EO 14008 (2021)]



<https://www.fisheries.noaa.gov/resource/document/alaska-fisheries-science-center-strategic-plan-fy2023-fy2027>

