



Upper Trophics

Fish and Crabs

Marine Mammals

Seabirds



Sheiko & Mecklenburg



Benthic fish (and crab) 2017 and 2019

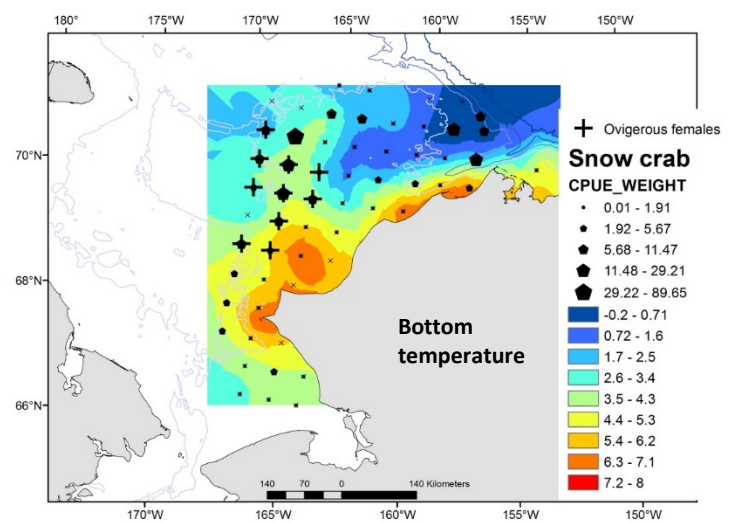
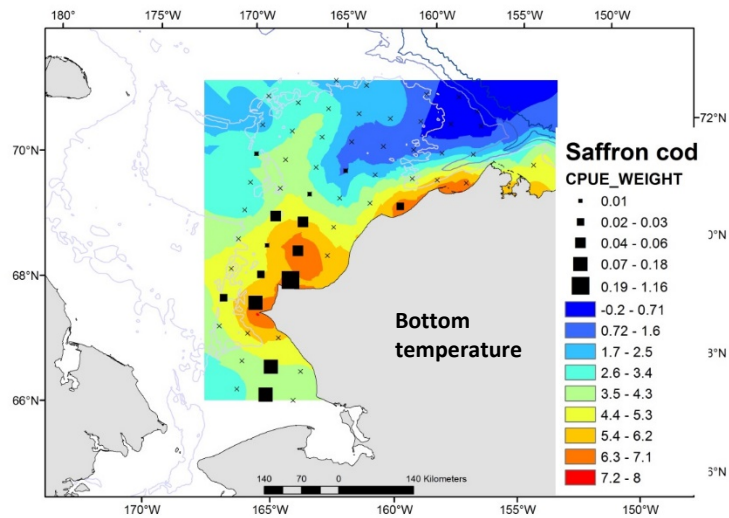
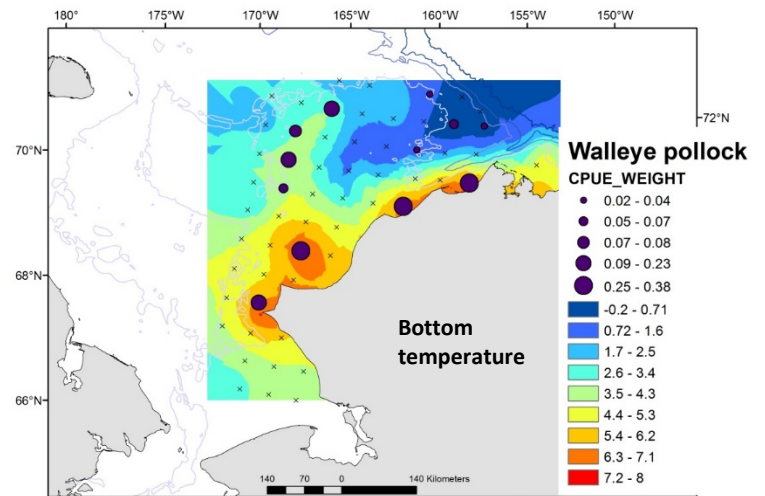
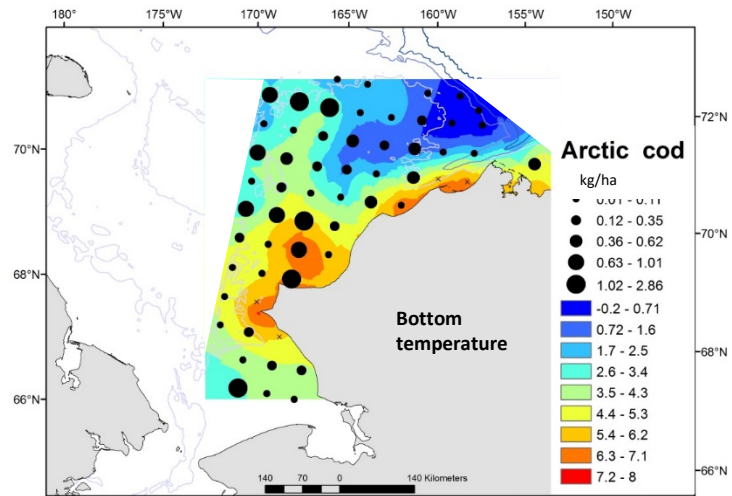
Dan Cooper and Libby Logerwell



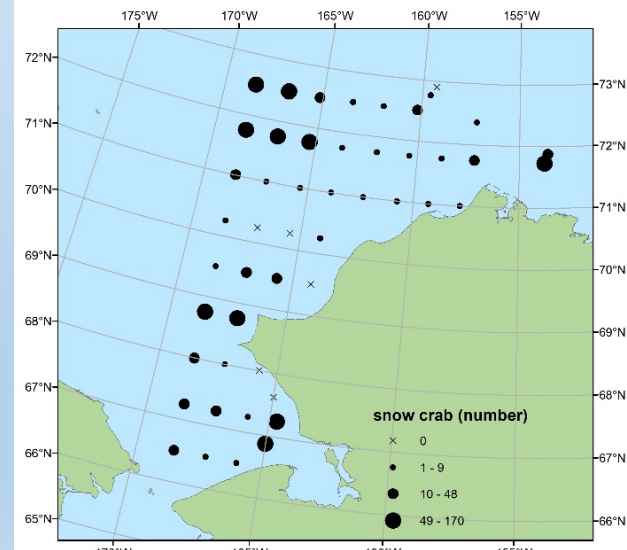
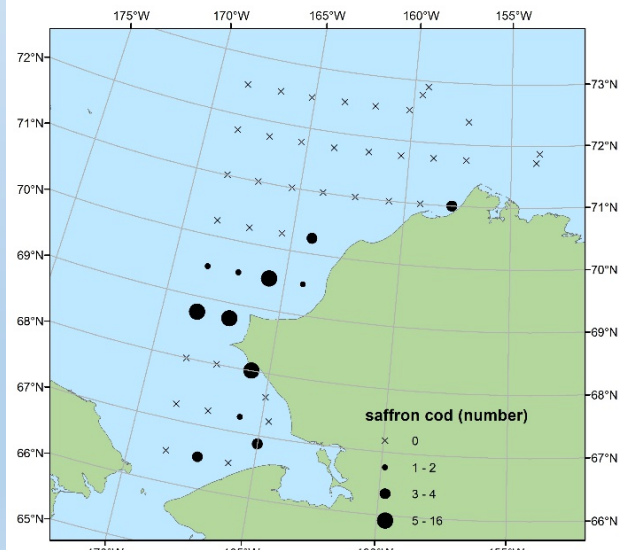
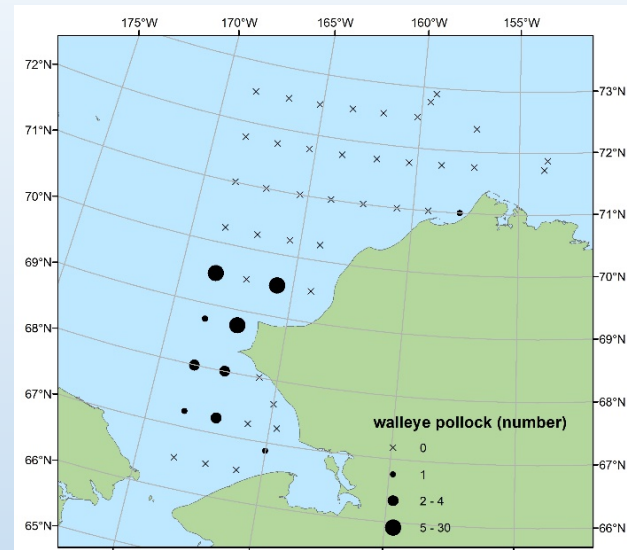
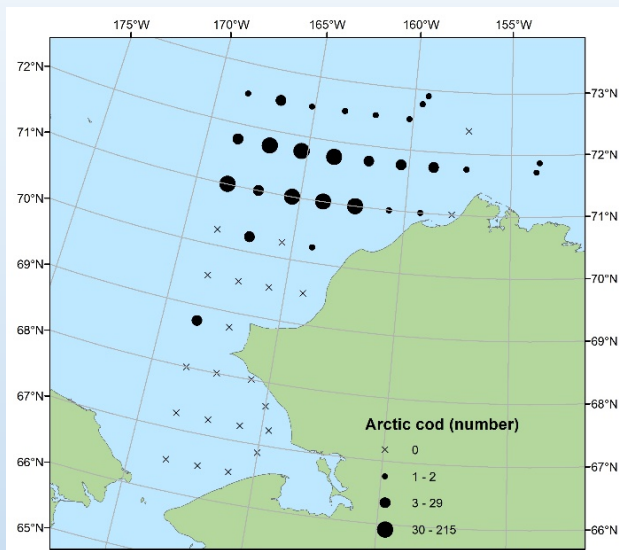
NOAA FISHERIES



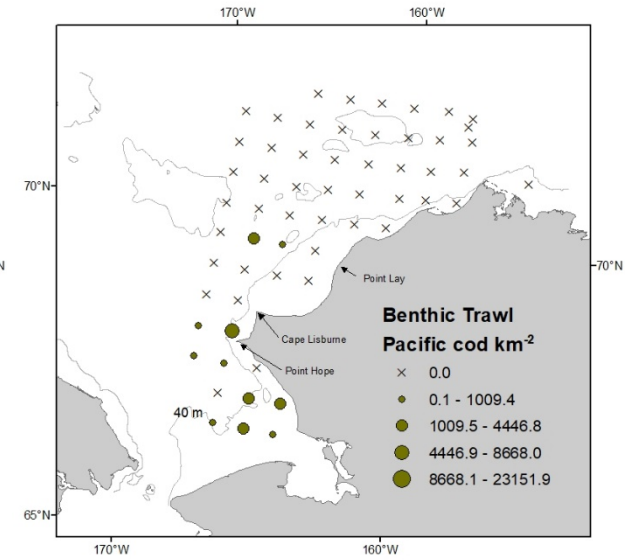
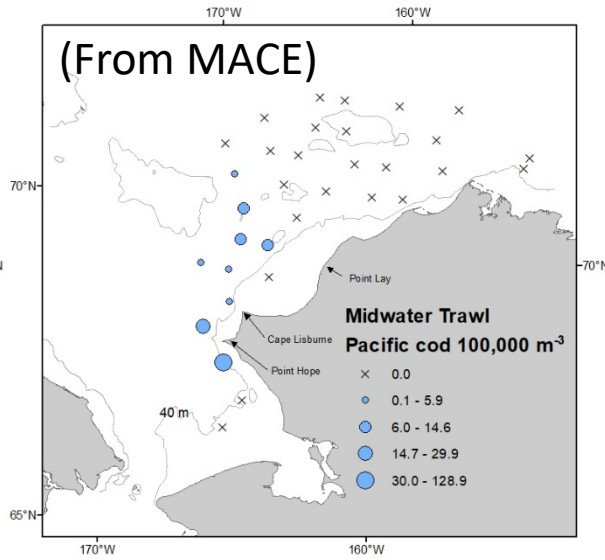
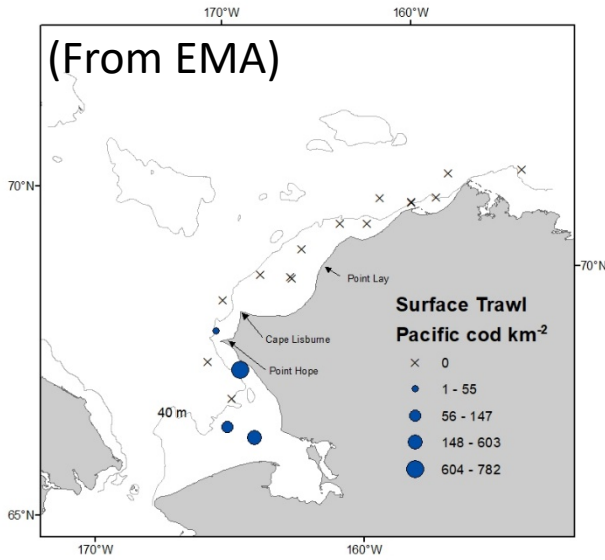
2017



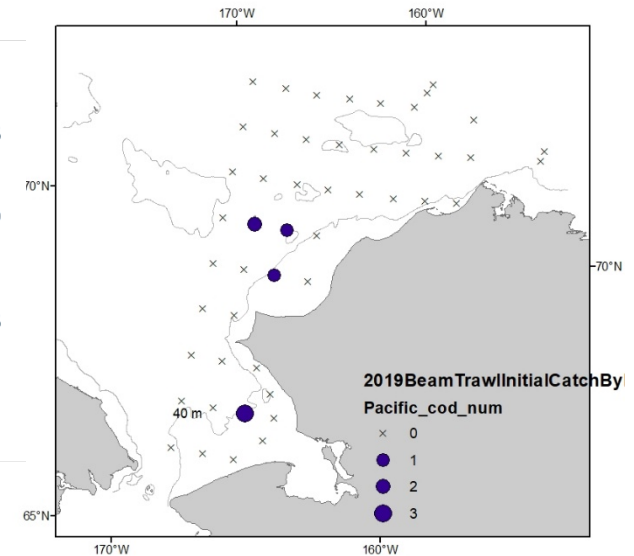
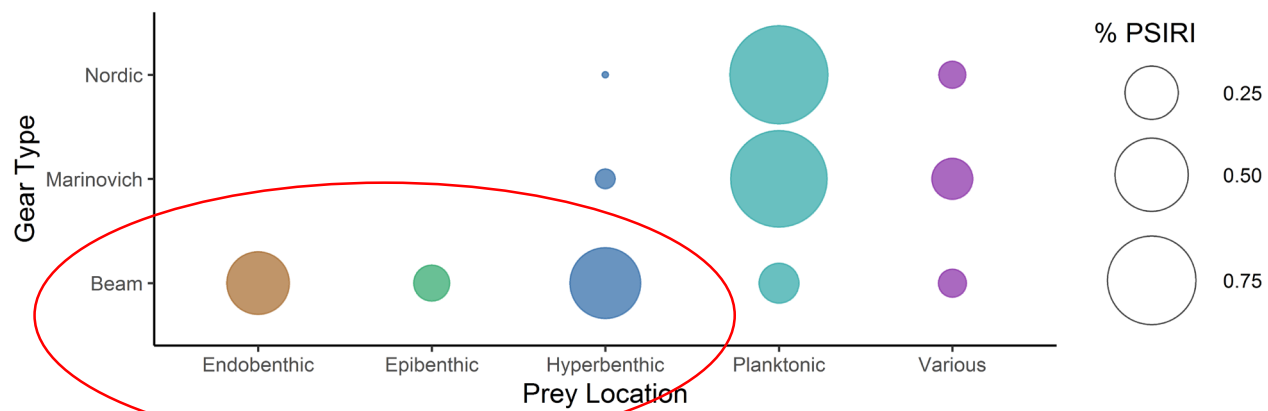
2019



2017 age-0 sized Pacific cod

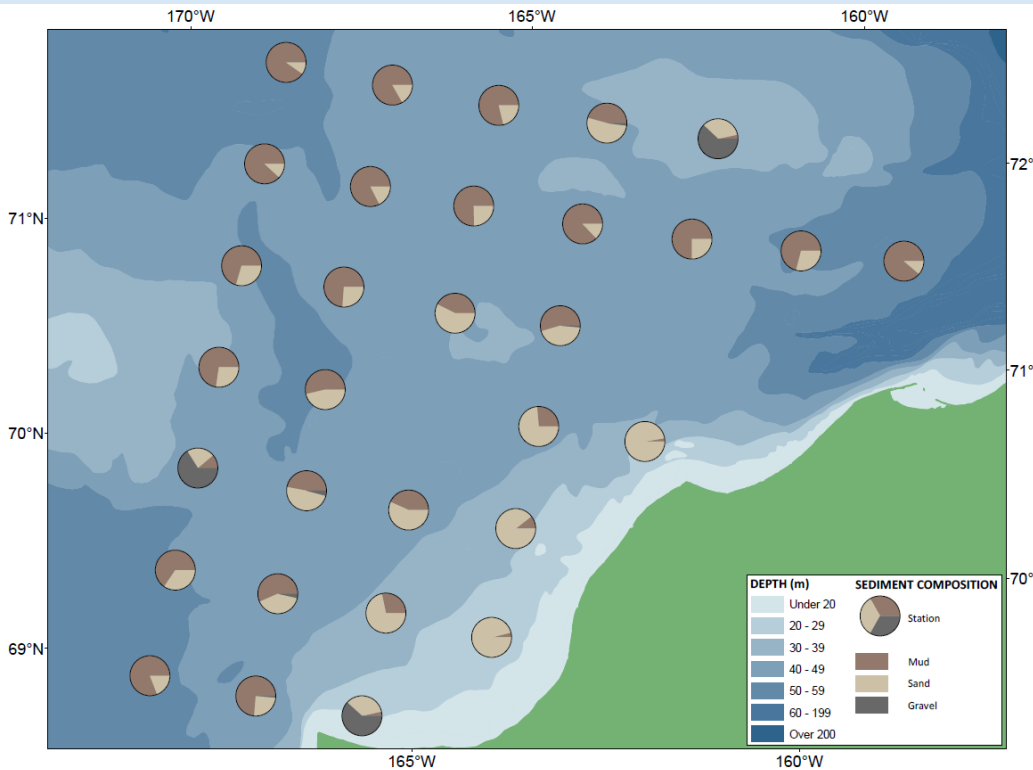


2019 Benthic trawl Pacific cod

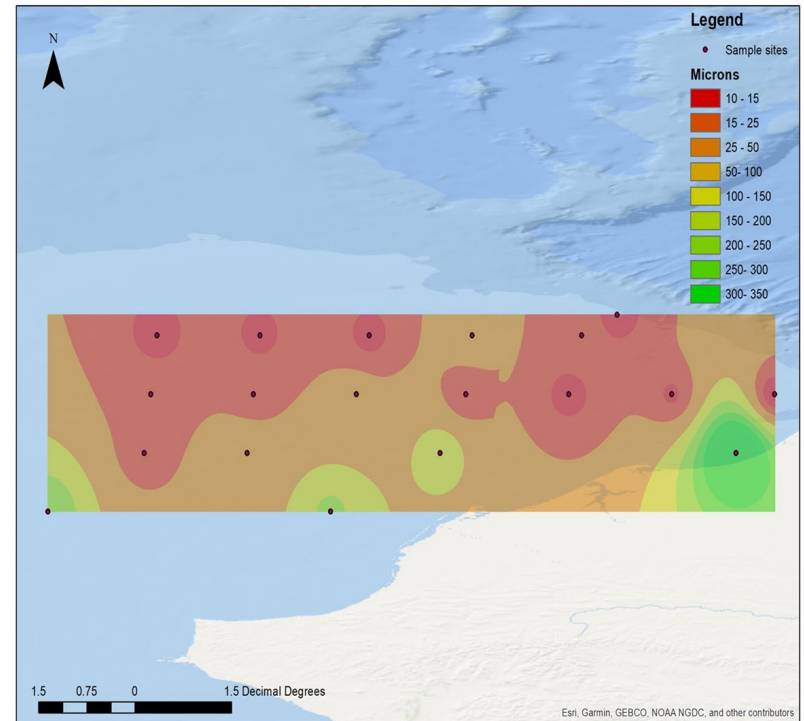


Sediment type at stations for fish and invertebrate distribution models

2017



2019 (incomplete)



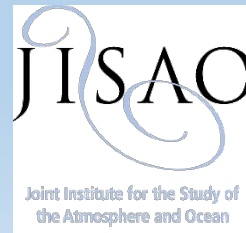
Aerial Surveys of Arctic Marine Mammals (ASAMM) 2010-19

Janet Clarke, Megan Ferguson, Amelia Brower, and Amy Willoughby



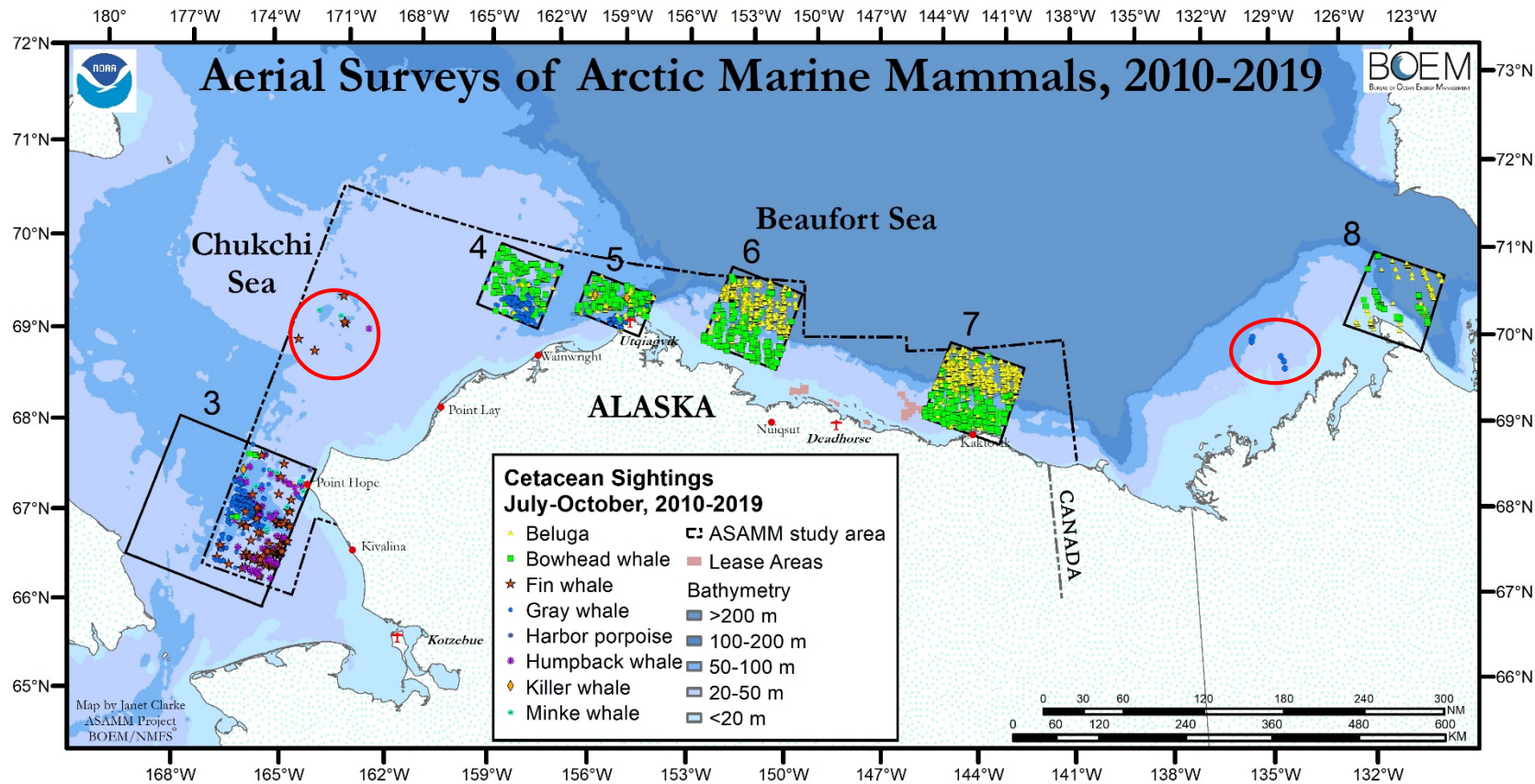
NOAA FISHERIES

BOEM
BUREAU OF OCEAN ENERGY MANAGEMENT





ASAMM July-October 2010-2019 Cetacean Sightings DBO 3, 4, 5, 6, 7, and 8



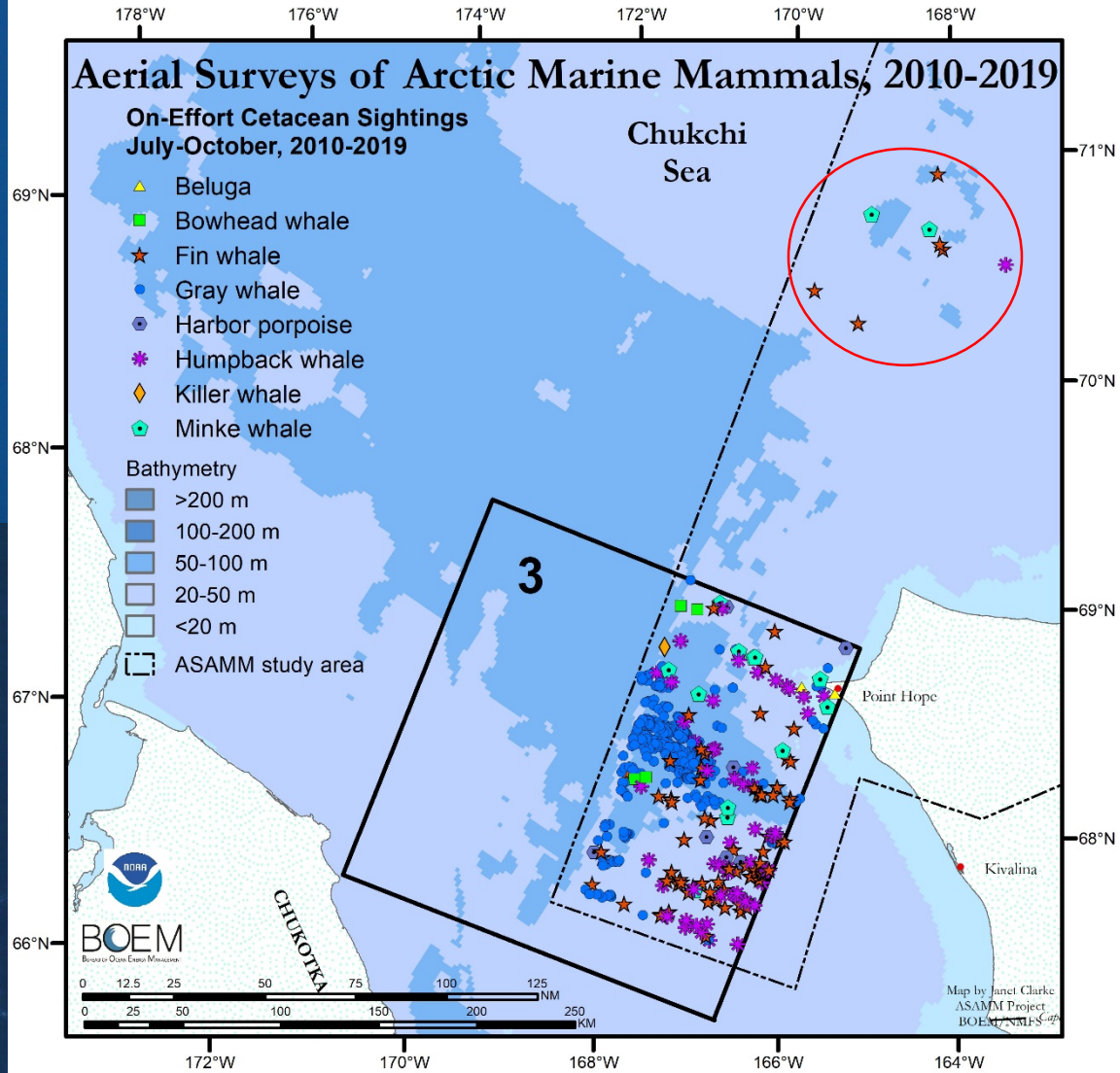
DBO-3 – gray whale hot spot, subarctic cetaceans

DBO-4 and DBO-5 – bowhead whales, gray whales, belugas

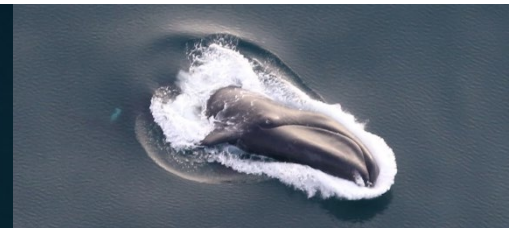
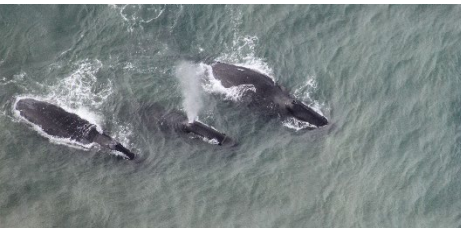
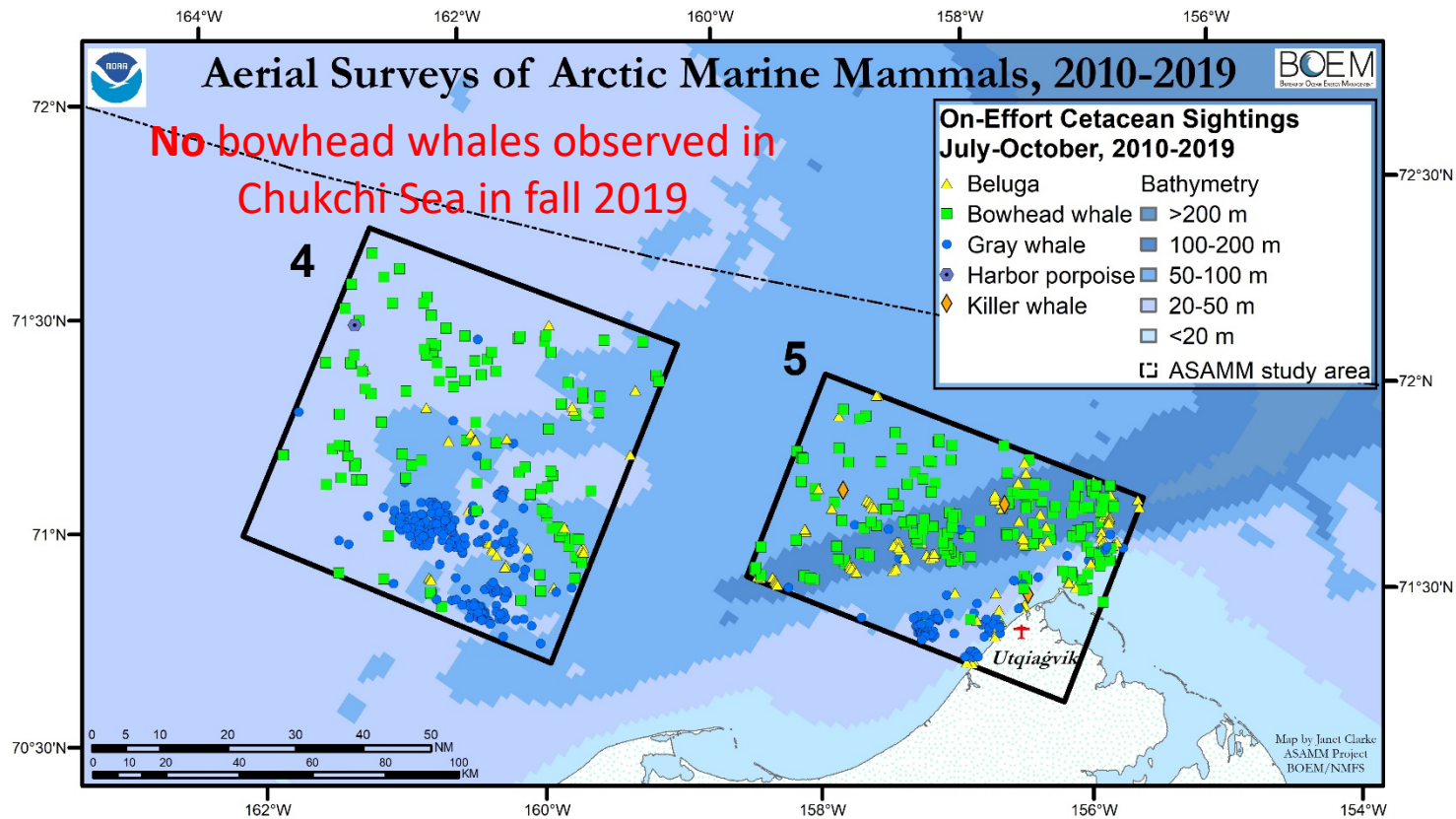
DBO-6, DBO-7, and DBO-8 – bowhead whales, belugas

**Special appearance by subarctics near Herald Shoal
and gray whales in the eastern Beaufort Sea**

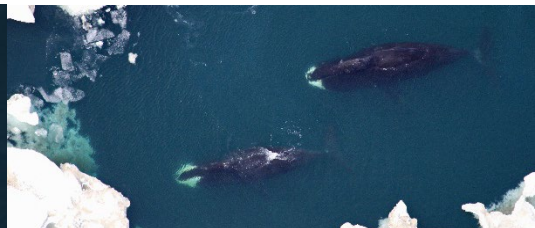
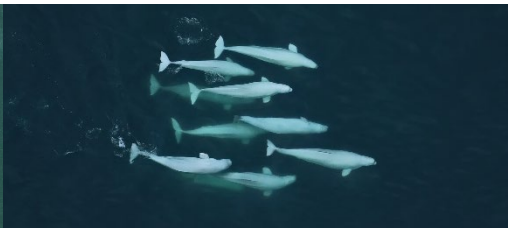
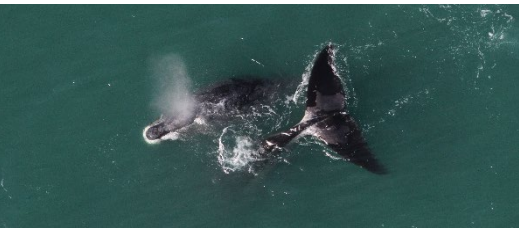
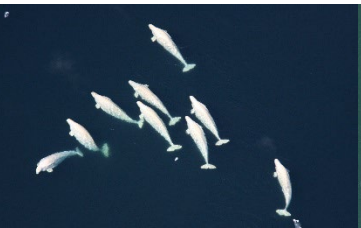
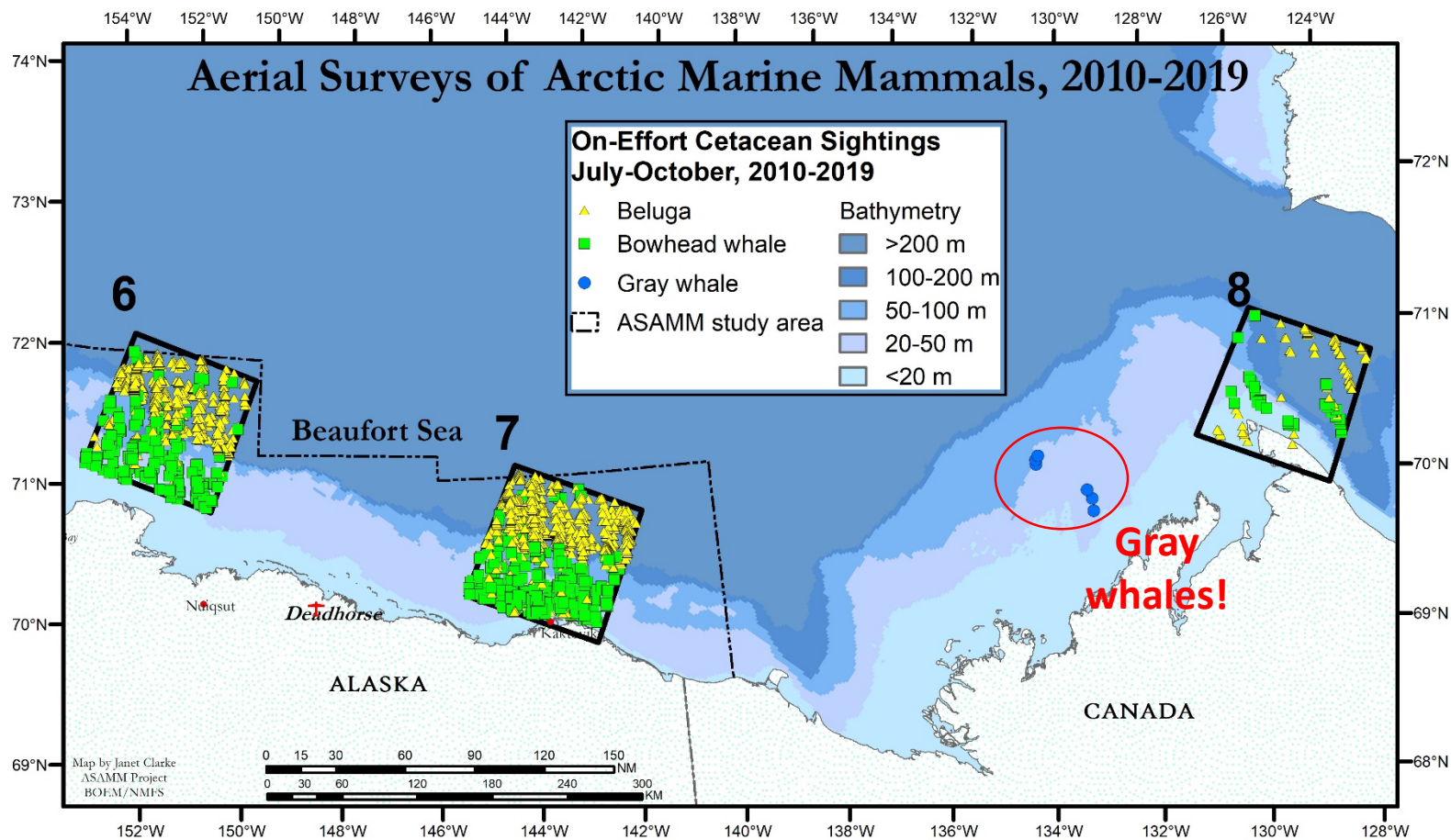
ASAMM 2010-2019 On-Effort Cetacean Sightings DBO-3 and Herald Shoal



ASAMM 2010-2019 On-Effort Cetacean Sightings DBO 4 and 5



ASAMM 2010-2019 On-Effort Cetacean Sightings DBO 6, 7, and 8



Marine mammal watch USCGC Healy 2019

Kelly Kapsar, Piper Bartlett Browne, Sue Moore

Fur seal !!!

*Seen at Station 5 of DBO 4,
August 2019*



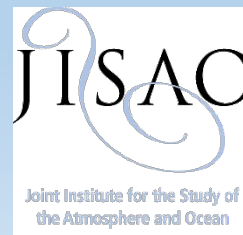
“ Farthest north we've observed fur seals with satellite tag data is north of St. Matthews, south of St. Lawrence Island. ” - Jeremy Sterling, AFSC

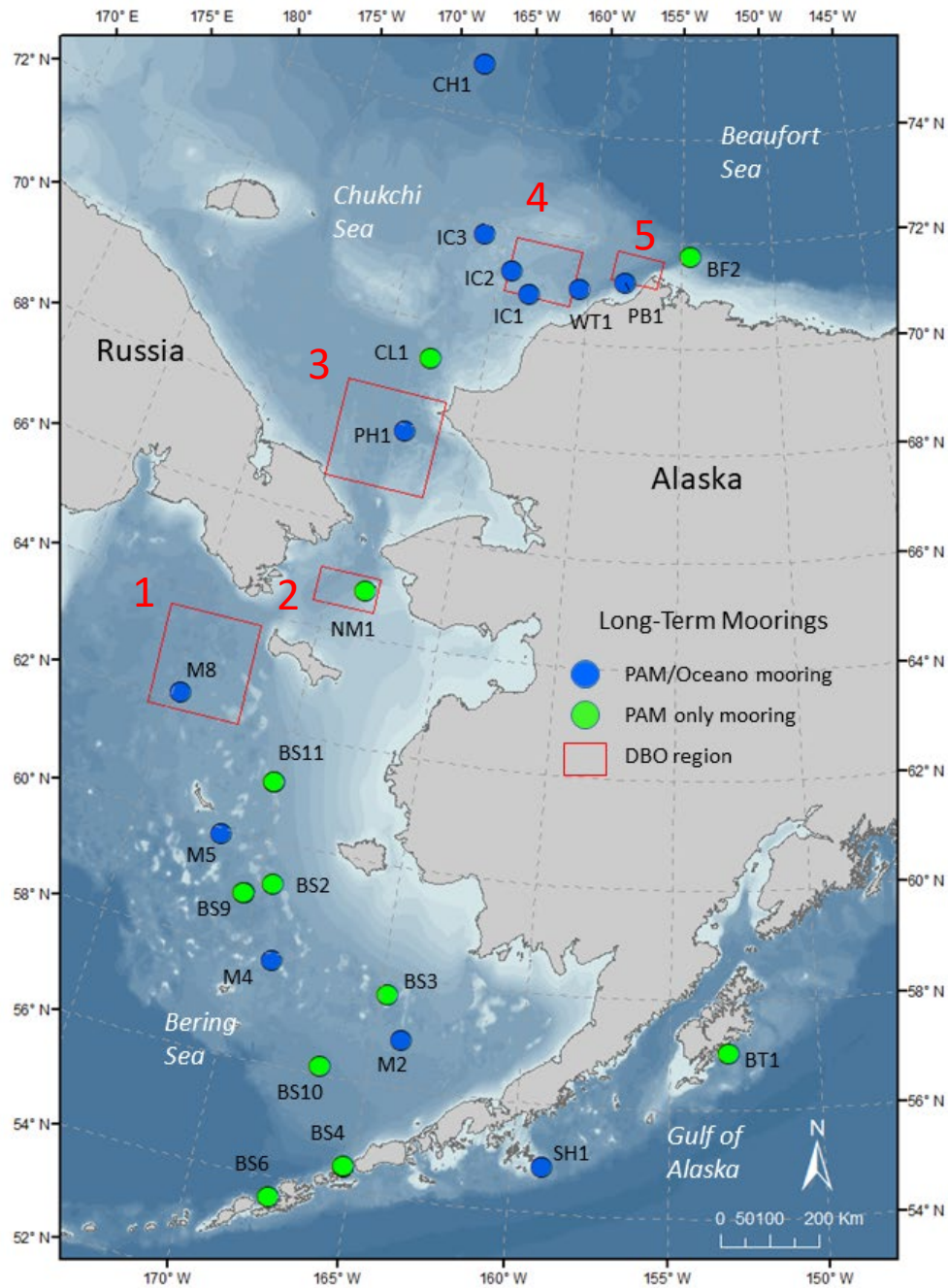
Arctic Long-Term Integrated Mooring Array (ALTIMA) 2010-19

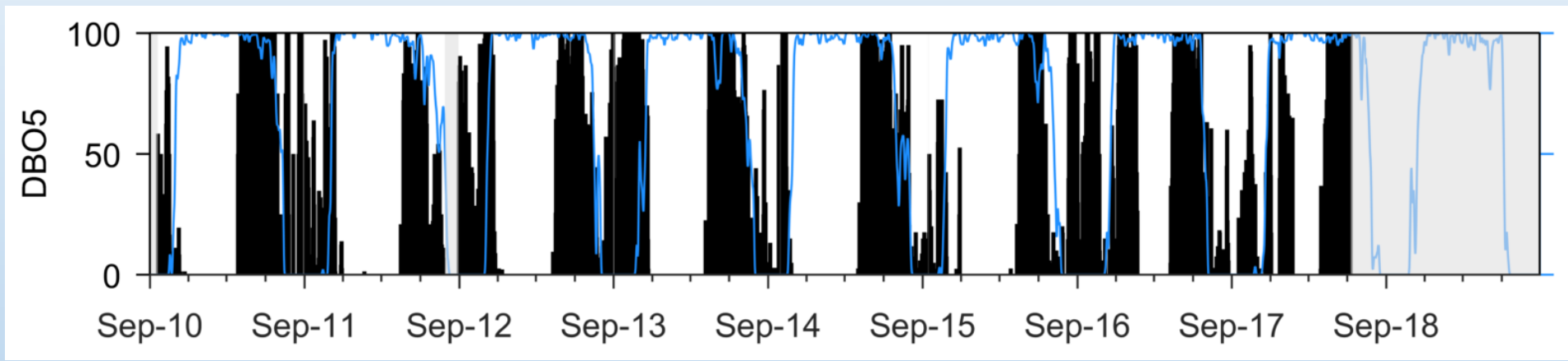
Catherine Berchok, Eric Braen, Jessica Crance, Stephanie Grassia, Jenna Harlacher, Brynn Kimber, Daniel Woodrich, Dana Wright & Phyllis Stabeno, Sigrid Salo, and David Strausz



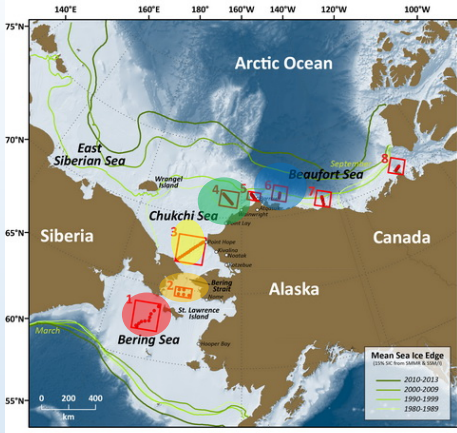
NOAA FISHERIES







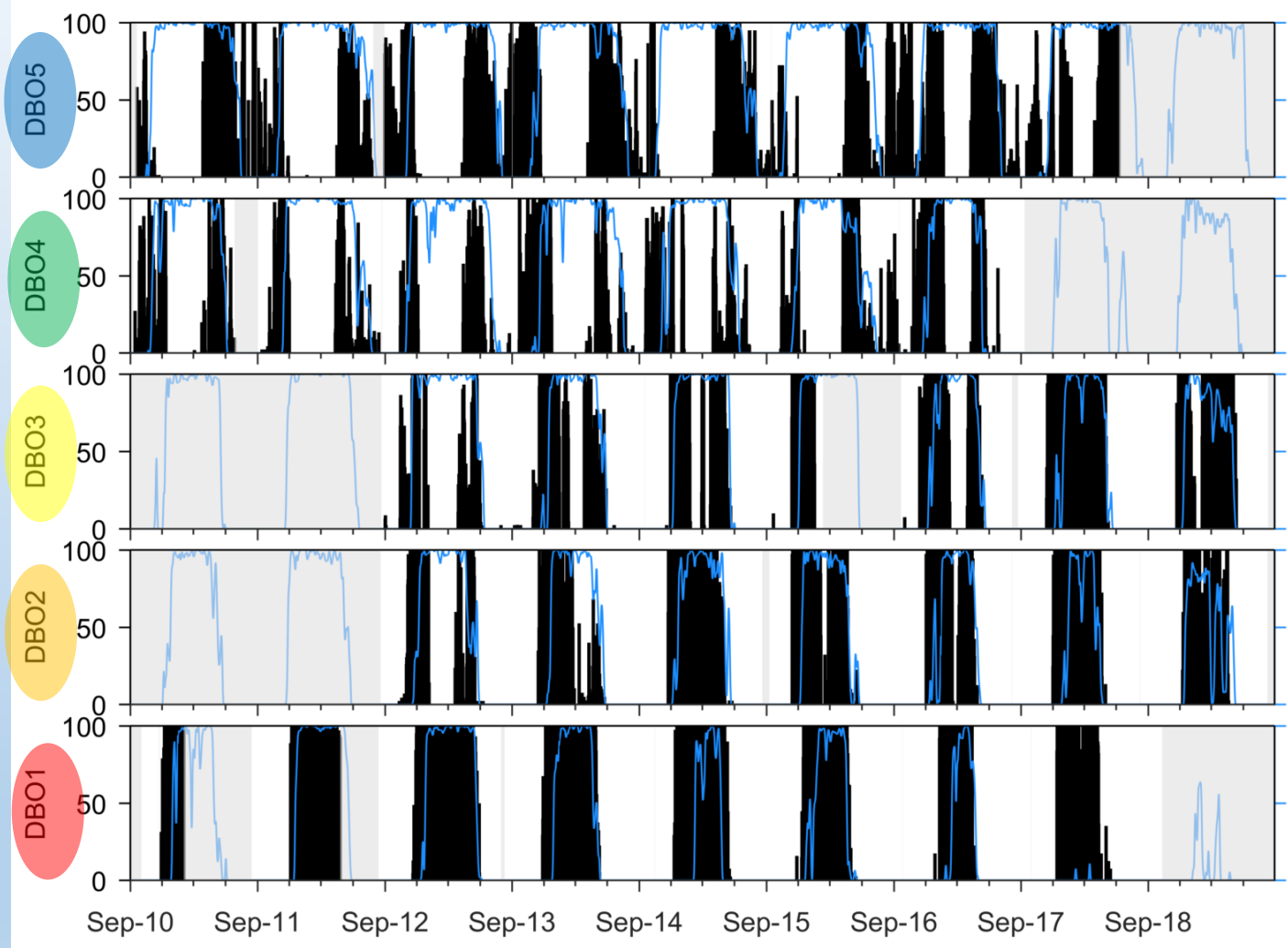
Bowhead whale



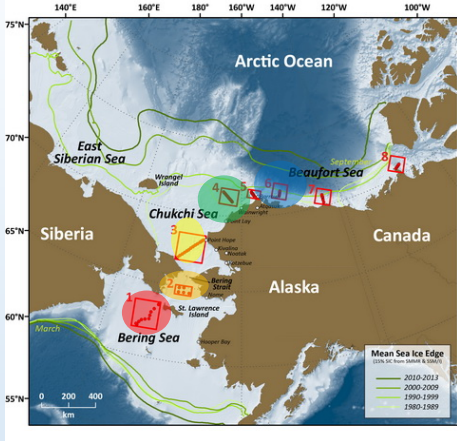
Arctic species

Summers in
Beaufort Sea

Winters in
Bering Sea



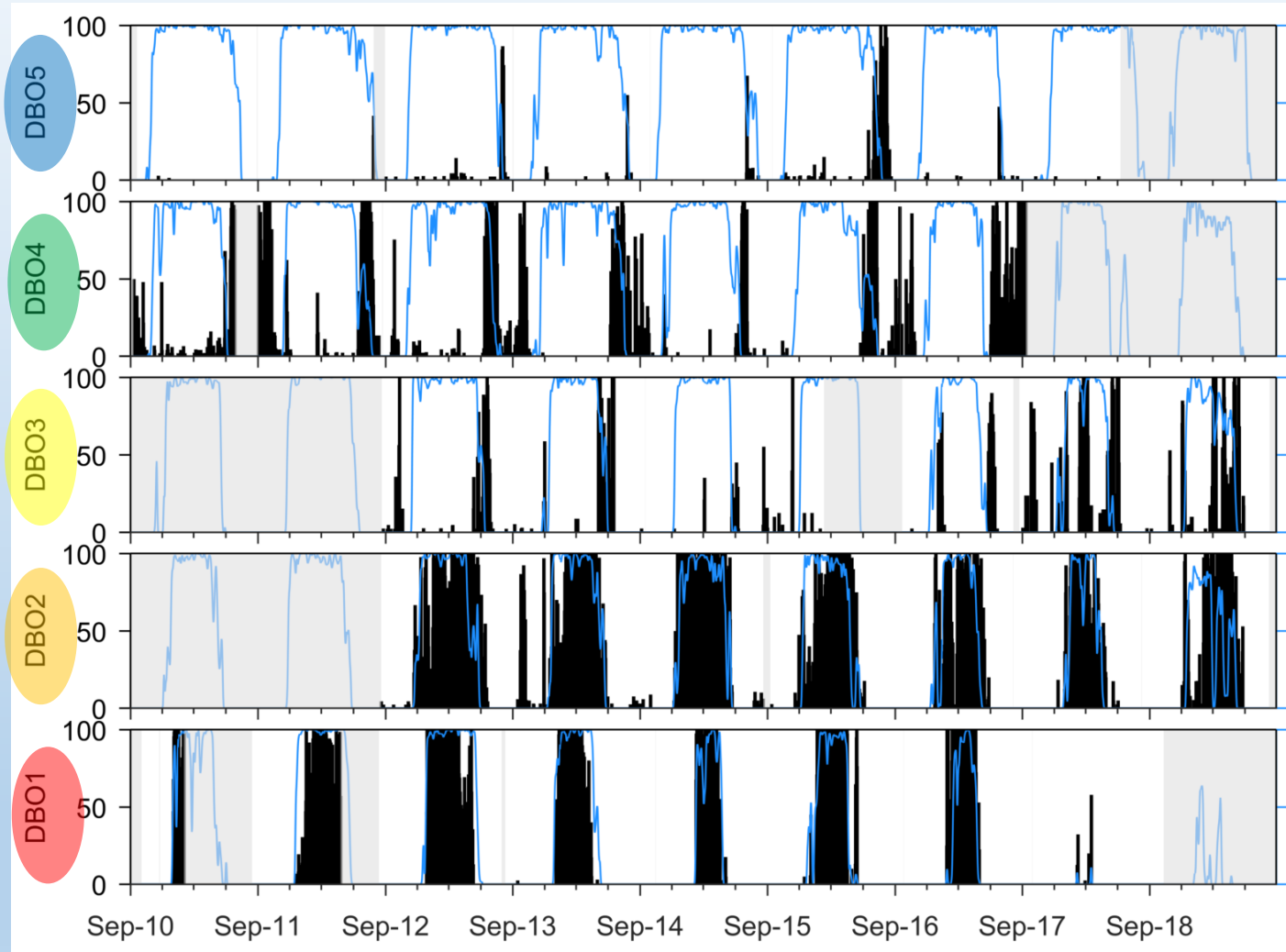
Walrus



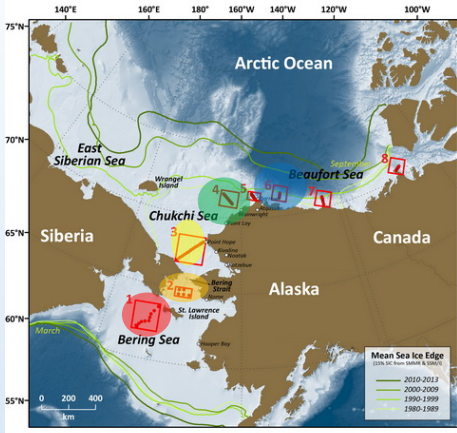
Arctic species

Summers in
Beaufort Sea

Winters in
Bering Sea



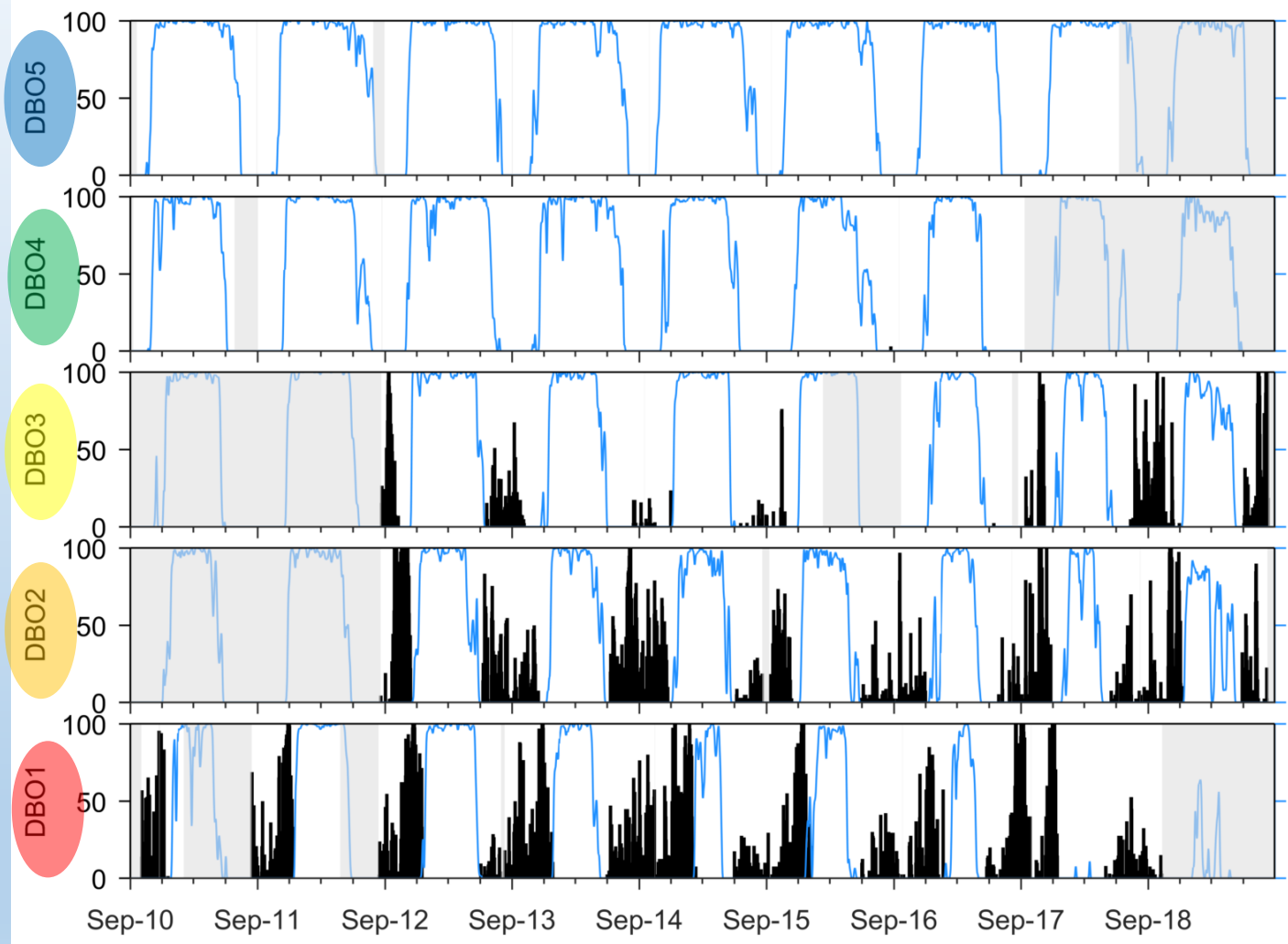
Humpback whale



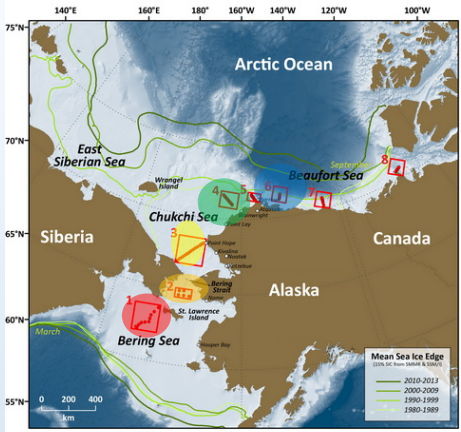
Subarctic
species

Summers in
Bering Sea

Winters
further south



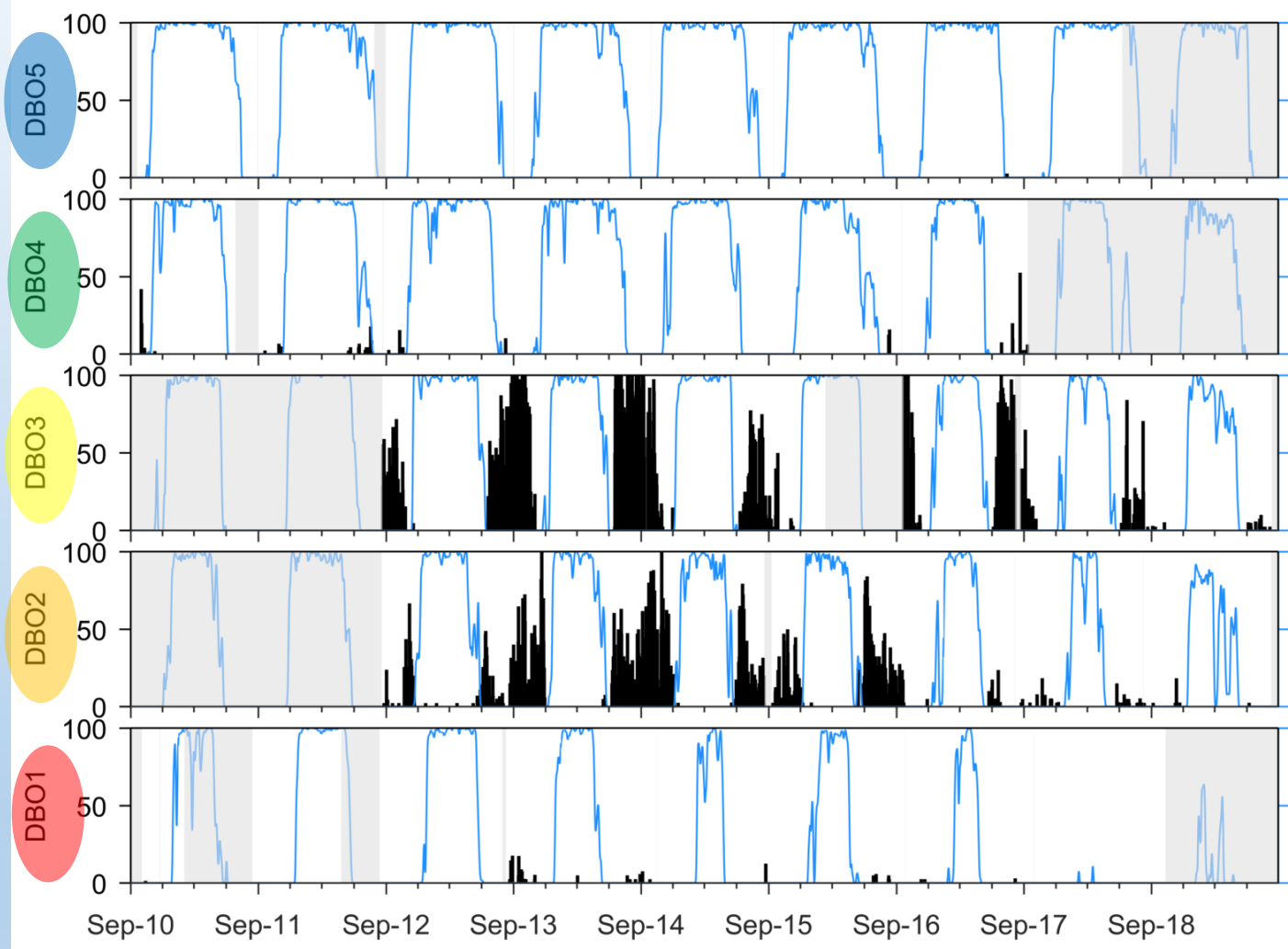
Gray whale

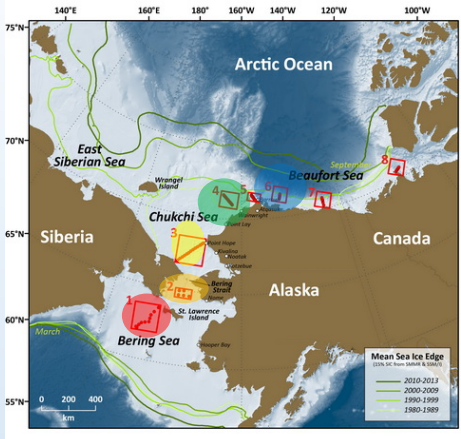


subarctic
species

Summers in
Bering Sea

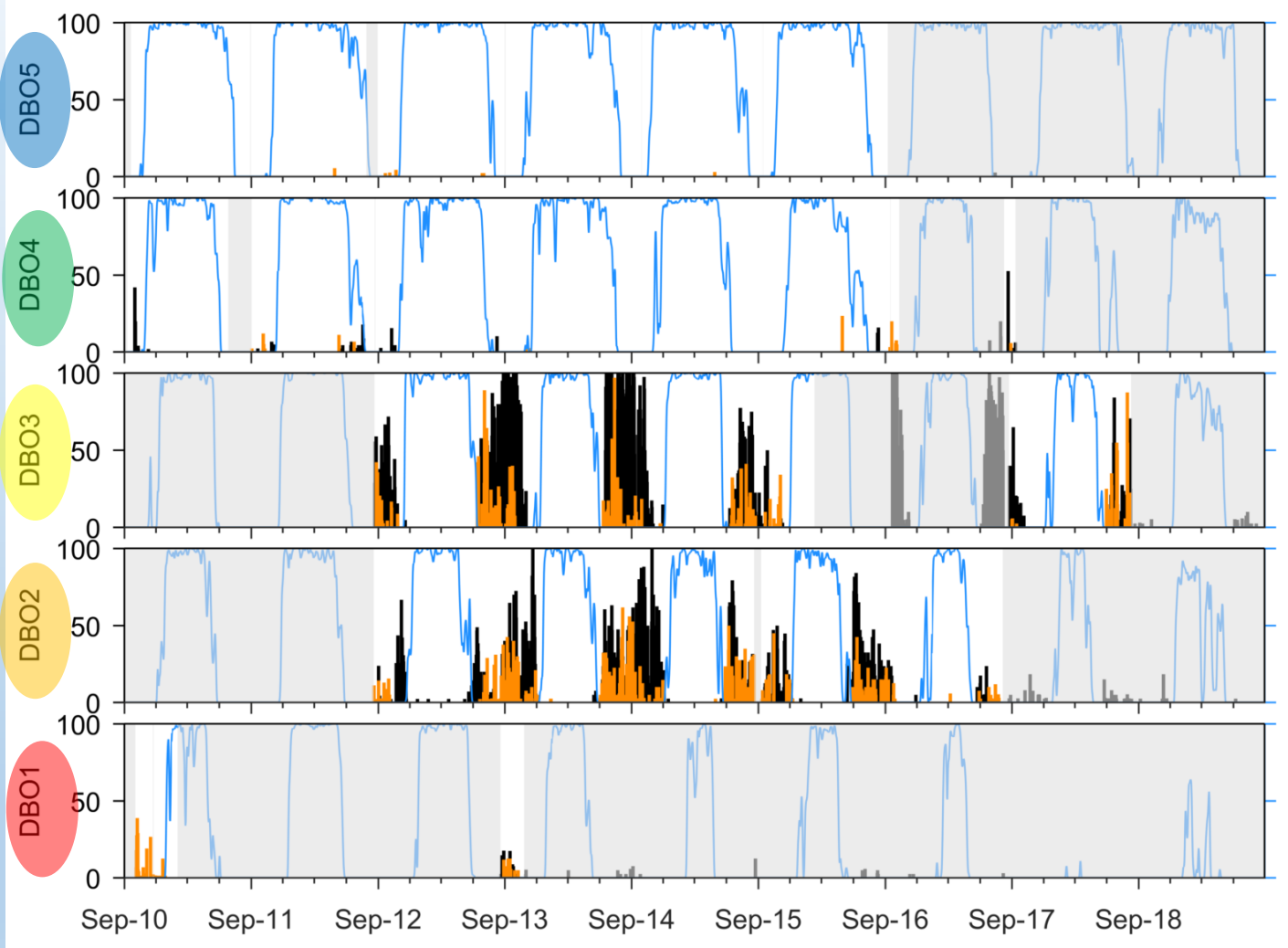
Winters
further south



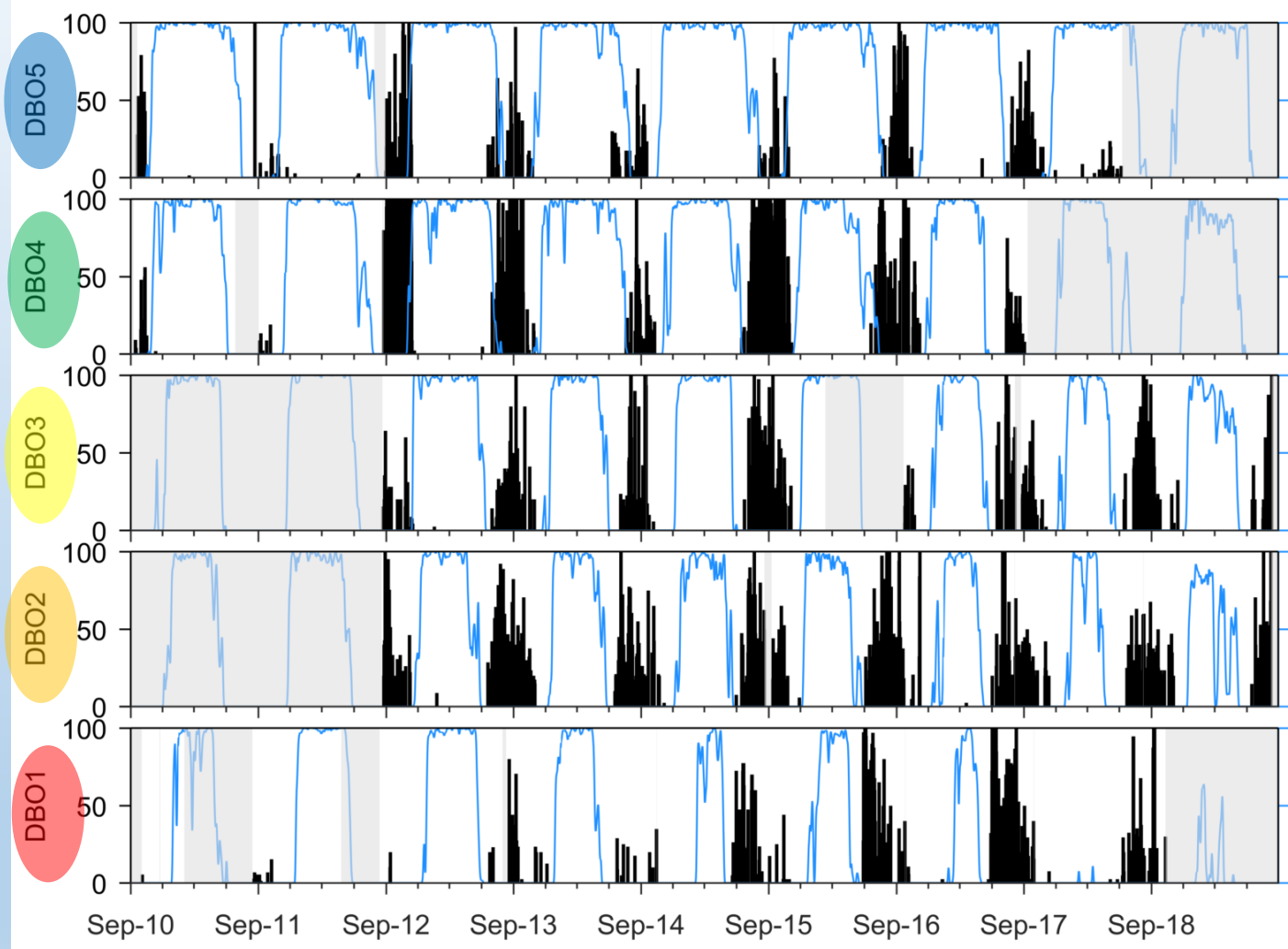
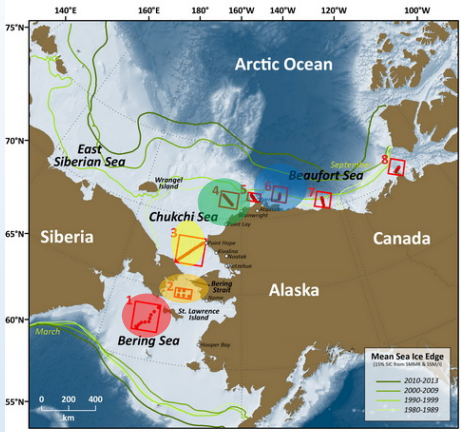


Gray whales

Killer whales



Vessel





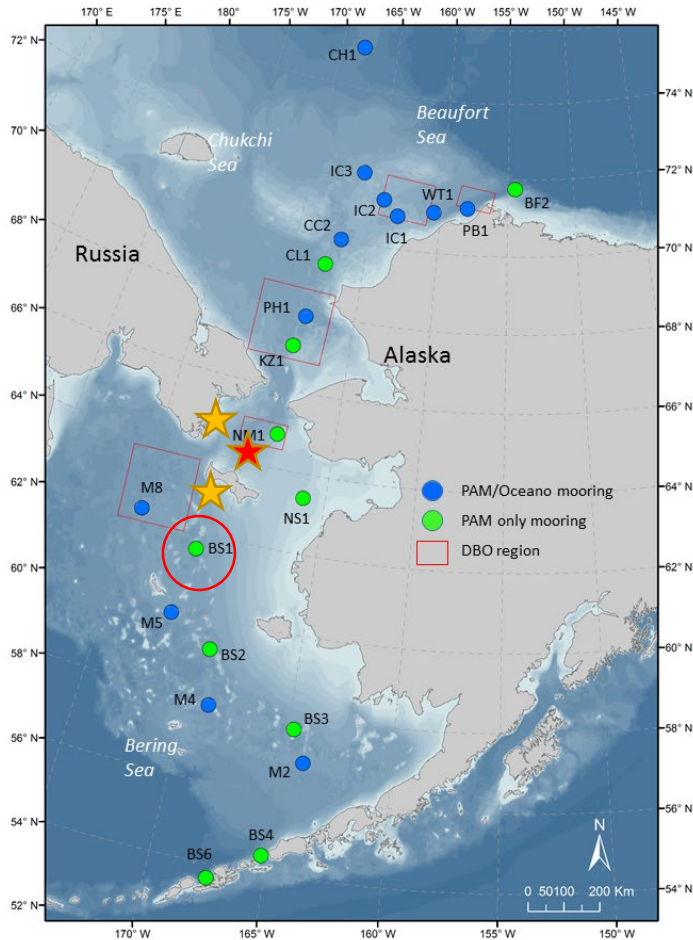
Notes

MARINE MAMMAL SCIENCE, 35(1): 311–326 (January 2019)
© 2018 Society for Marine Mammalogy
DOI: 10.1111/mms.12521

Acoustic detection of the critically endangered North Pacific right whale in the northern Bering Sea

DANA L. WRIGHT,¹ University of Washington, Joint Institute for the Study of Atmosphere and Ocean, 3737 Brooklyn Avenue NE, Seattle, Washington 98105, U.S.A. and NOAA NMFS Alaska Fisheries Science Center, Marine Mammal Laboratory, 7600 Sand Point Way NE, Seattle, Washington 98115, U.S.A.; CATHERINE L. BERCHOK, JESSICA L. CRANCE, and PHILLIP J. CLAPHAM, NOAA NMFS Alaska Fisheries Science Center, Marine Mammal Laboratory, 7600 Sand Point Way NE, Seattle, Washington 98115, U.S.A.

The eastern population of the North Pacific right whale (hereafter NPRW; *Eubalaena japonica*) is one of the most endangered baleen whale populations in the world (Reilly *et al.* 2008), numbering in the tens of individuals ($n \approx 30$; Wade *et al.* 2011) due to historical whaling (19th and 20th centuries) followed by illegal catches in the 1960s (Scarff 2001, Ivashchenko and Clapham 2012, Ivashchenko *et al.* 2017). Whaling logs indicate that the majority of NPRW catches and sightings within the eastern Bering Sea (east of 175°W) ranged from the Aleutian Islands to St. Matthew Island, with limited ($n < 20$) detections farther north (Fig. 1; Nasu 1960, Sheldon *et al.* 2005). It has been suggested that at least some of the northern range historical sightings were either misidentified as bowhead whales



Right whale sighting - 7nm S of west coast St. Lawrence Island!!! (26 Jul 2018, IWC POWER cruise)

Seabirds

Kathy Kuletz & Elizabeth Labunski

US Fish and Wildlife