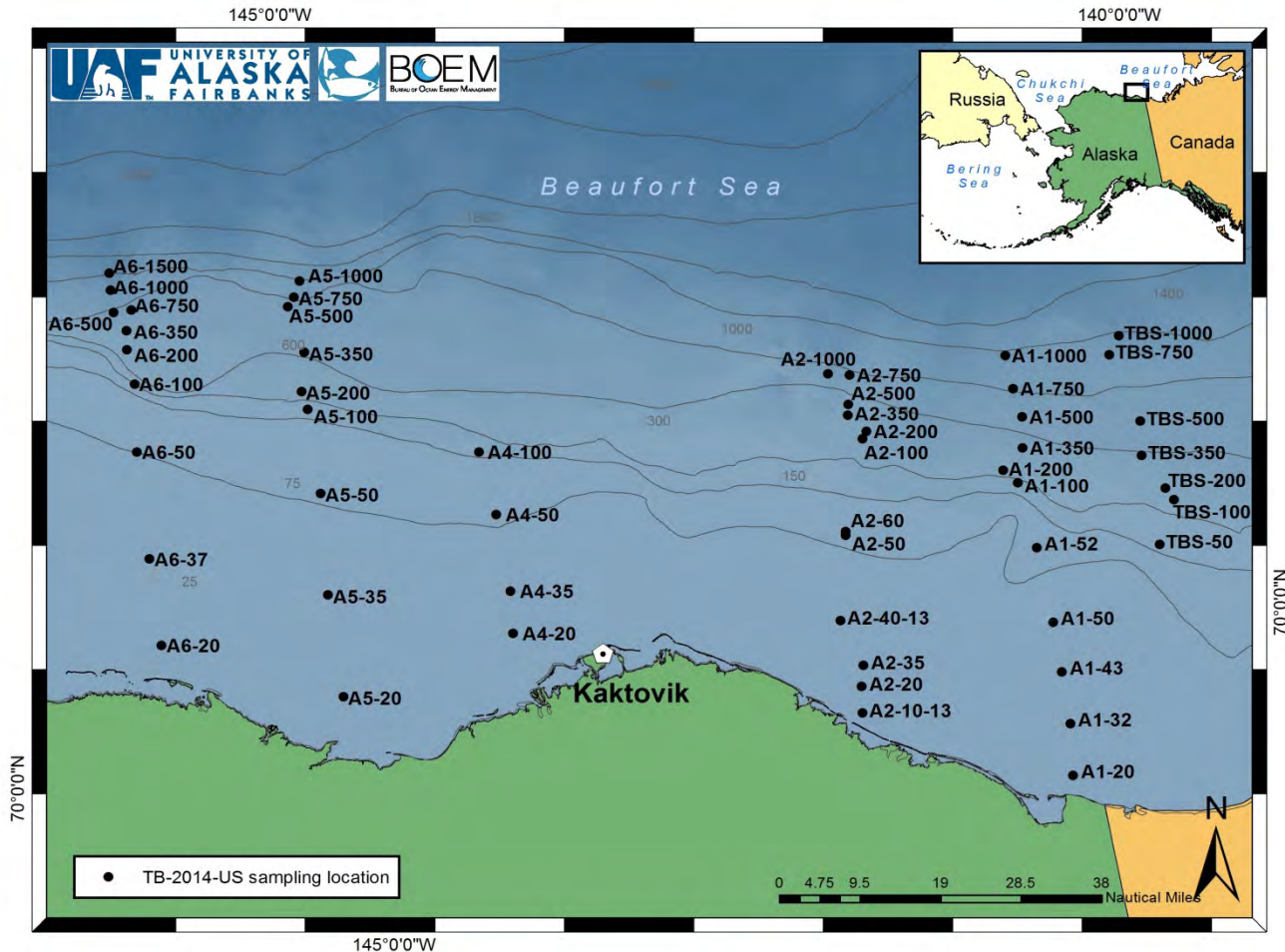


Russ Hopcroft

University of Alaska Fairbanks

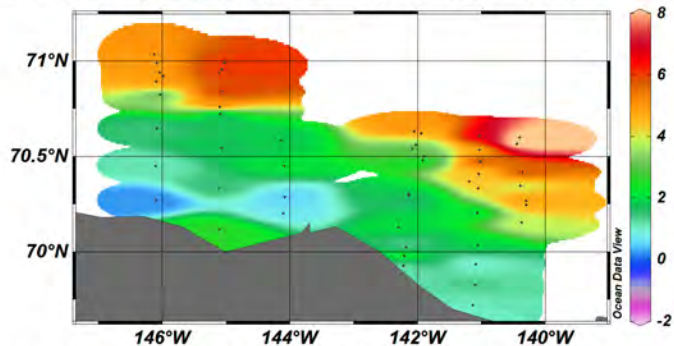
- Canada-USA Transboundary Project
- AMBON: Arctic Marine Biodiversity Observing Network Project
- CSESP

Beaufort Transboundary 2014

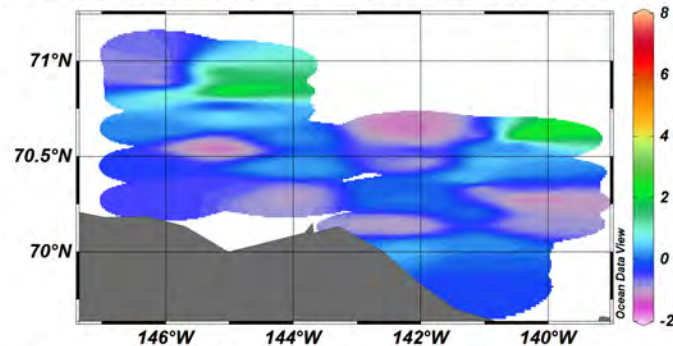


- CTD
- Nutrients, Chlorophyll
- Zooplankton (150, 505 μ m)
- Benthos (trawls & grabs)
- Fish trawls

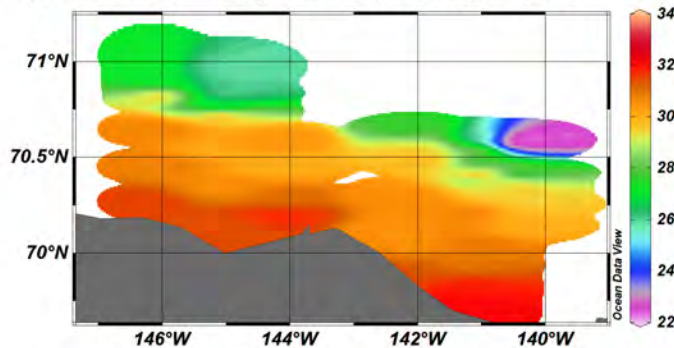
Temperature [ITS-90, deg C] @ Pressure, Digiquartz [db]=5



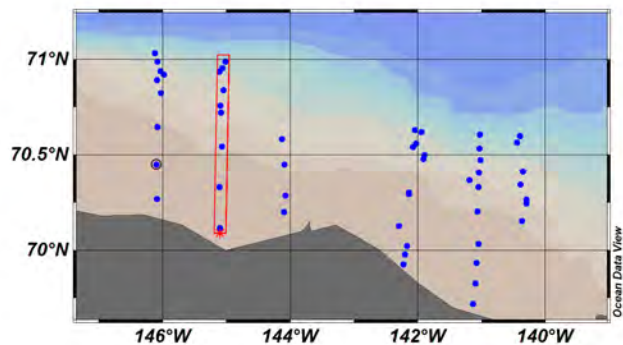
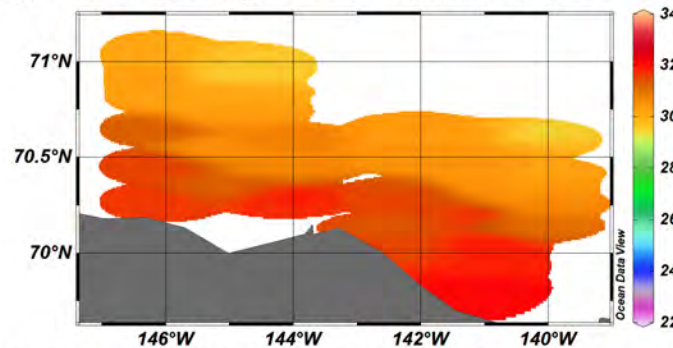
Temperature [ITS-90, deg C] @ Pressure, Digiquartz [db]=20



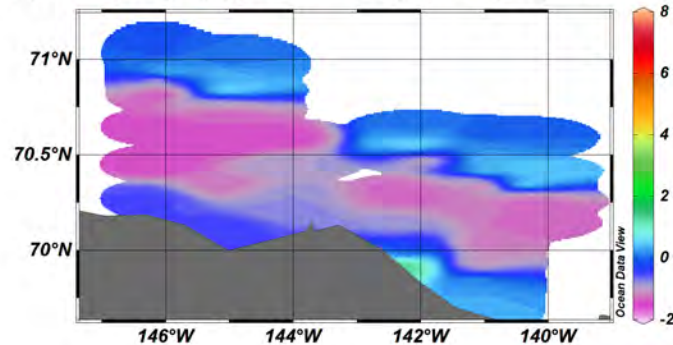
Salinity, Practical [PSU] @ Pressure, Digiquartz [db]=5



Salinity, Practical [PSU] @ Pressure, Digiquartz [db]=20



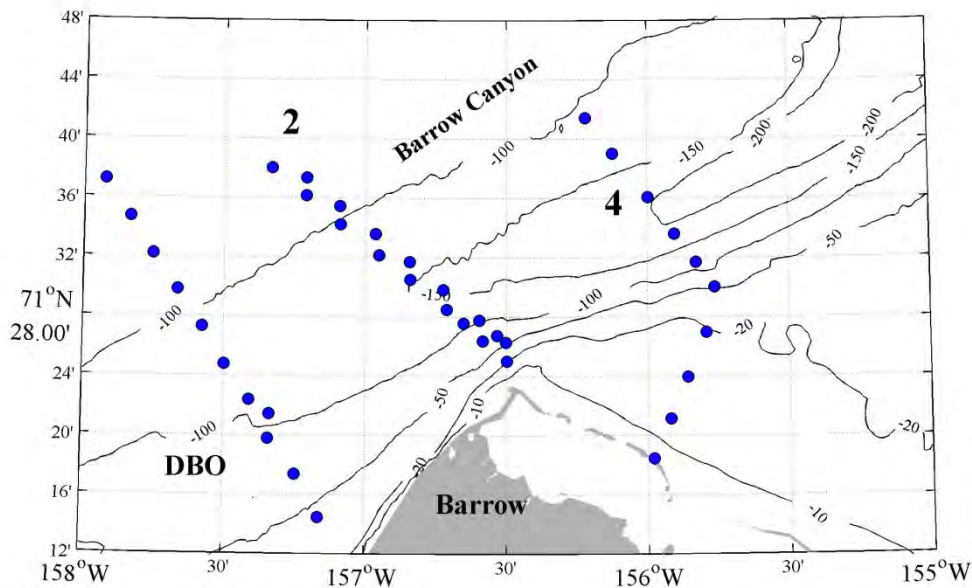
Temperature [ITS-90, deg C] @ Pressure, Digiquartz [db]=last



Ashjian, Campbell, Okkonen – AON

August 18 – September 8, 2014

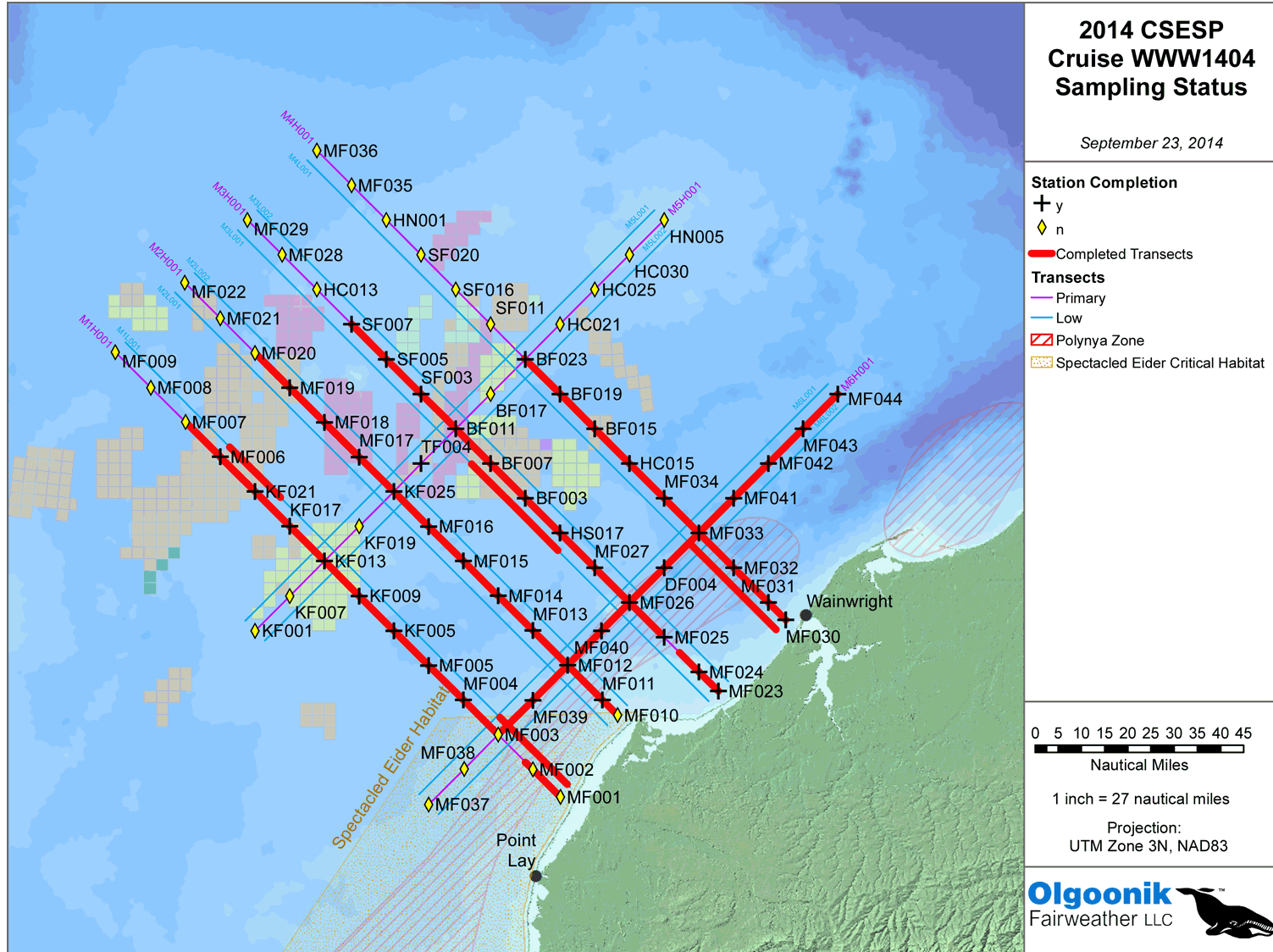
(Line 2 sampled twice)



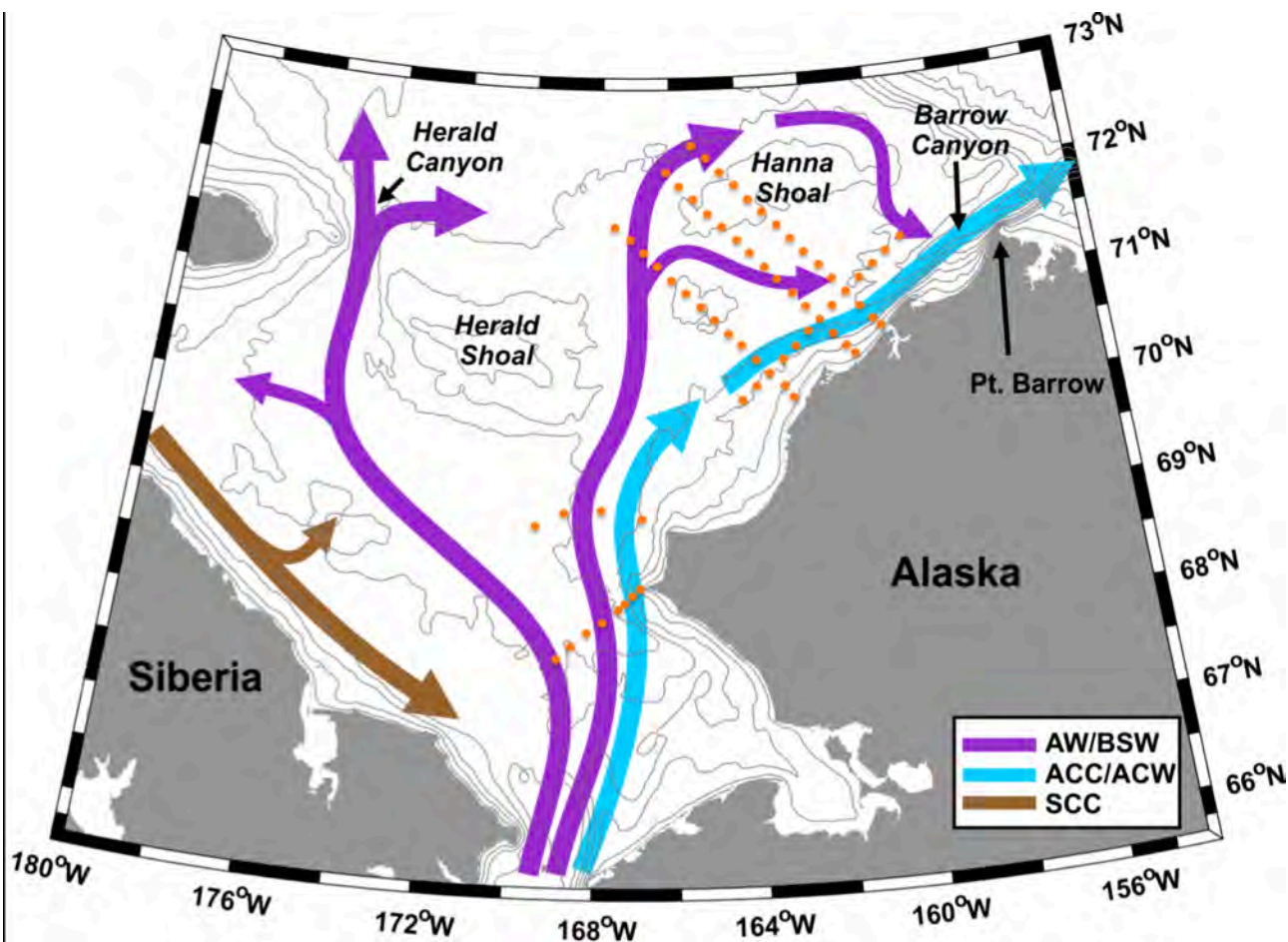
R/V Annika Marie

- Temperature, salinity, chlorophyll and CDOM fluorescence, OBS from towed profiler
- Velocity and acoustic backscatter from towed ADCP
- Chlorophyll, nutrients, FCMs, microzooplankton from Niskin bottles
- Mesozooplankton from ring nets and Tucker Trawls

CESP



AMBON 2015



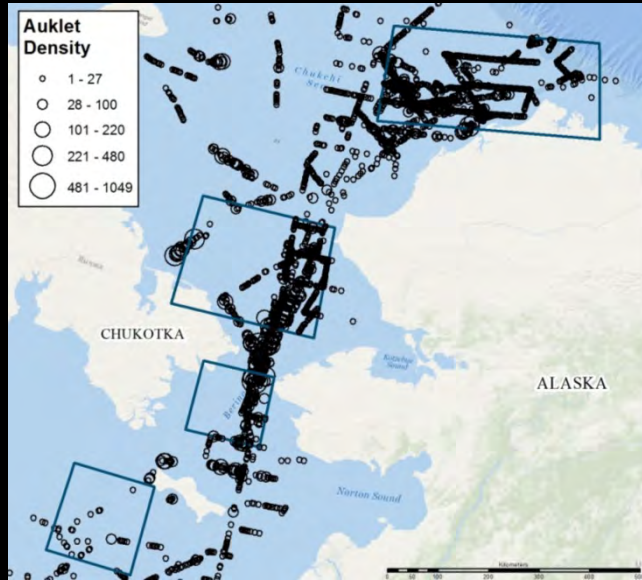
- Son of CESP
- Physics
- Plankton
- Benthos
- Fish
- Birds & Mammals

Kathy Kuletz-USFWS
Seabird studies

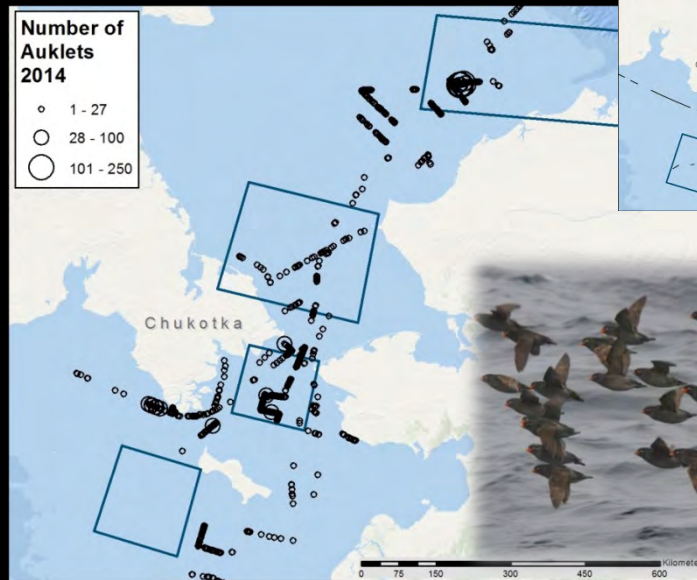
Seabird surveys on 4 cruises in 2014 in Arctic

AUKLETS

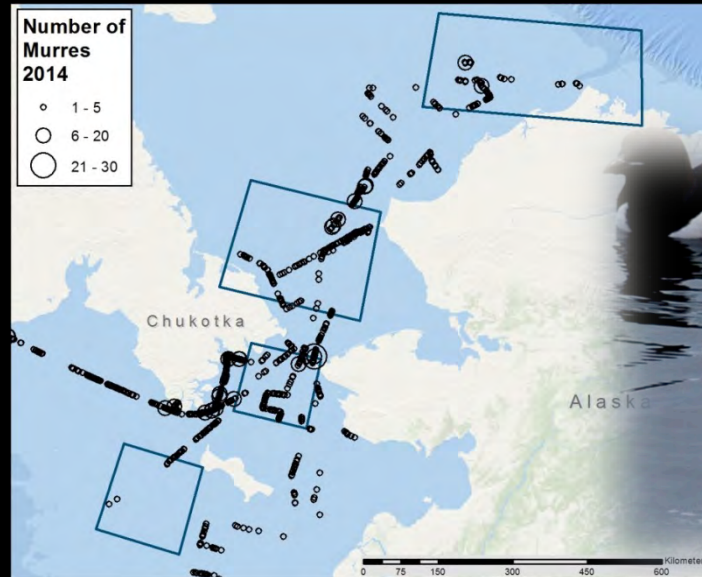
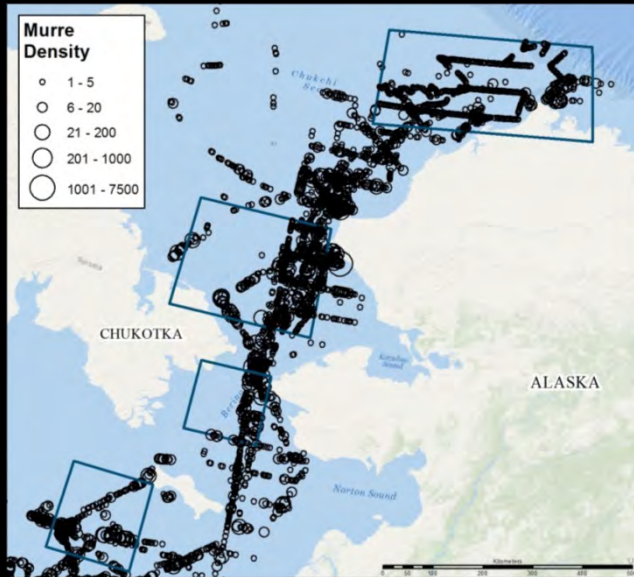
2010-2013



2014



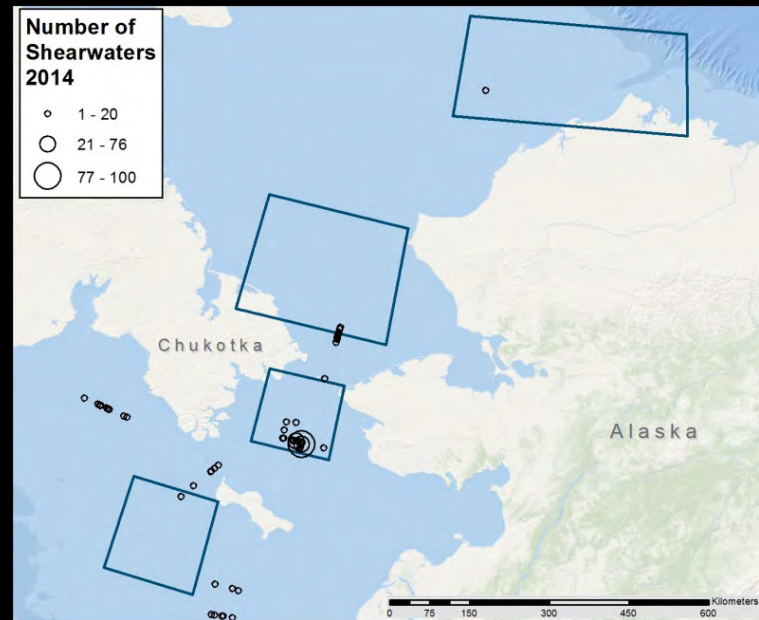
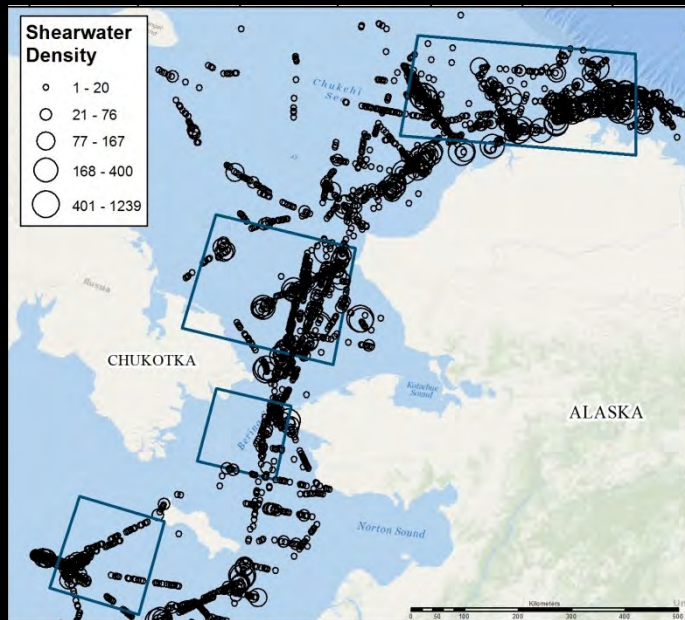
MURRES



SHORT-TAILED SHEARWATER

2010 – 2013

2014



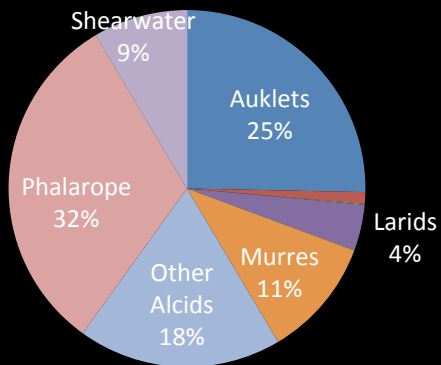
Short-tailed shearwater distribution and abundance in 2014 was very different from 2010-2013.

Shearwaters had been at least half of all birds, throughout N.Bering & Chukchi, but were **absent in 2014.**

Seabird species composition by DBO - 2013 & 2014

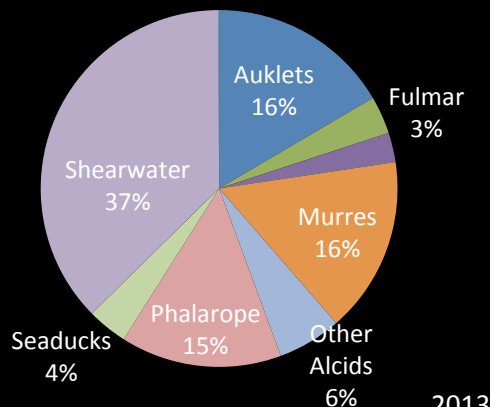
(2013 was similar to previous 3 years; 2014 had different species & abundance)

Chirikov Basin



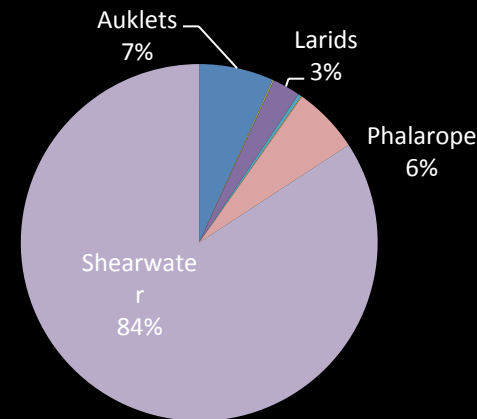
2013

Hope Basin

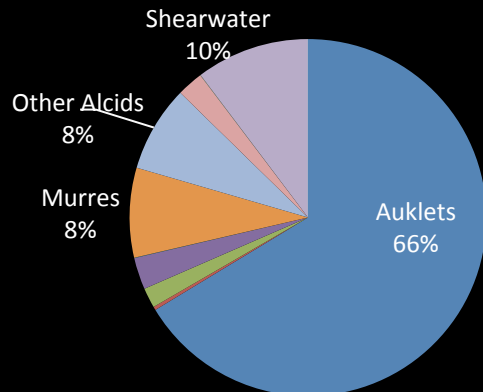


2013

NE Chukchi

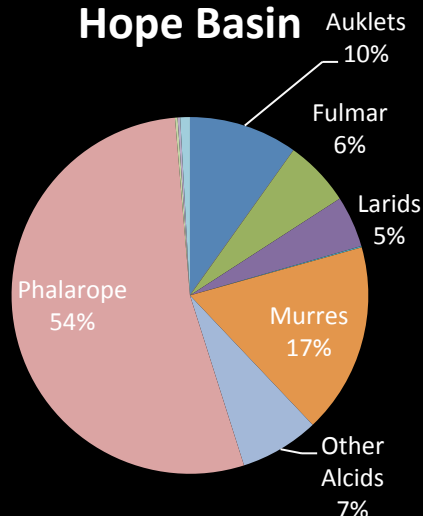


Chirikov Basin



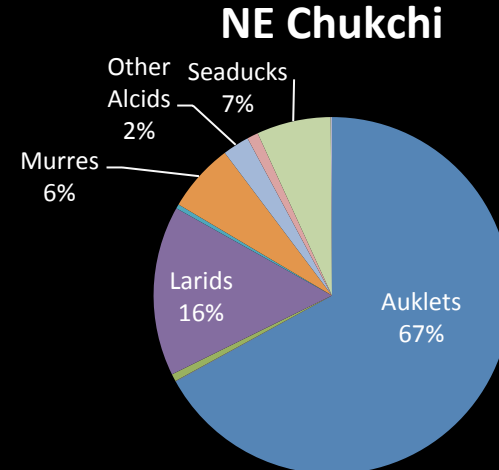
2014

Hope Basin



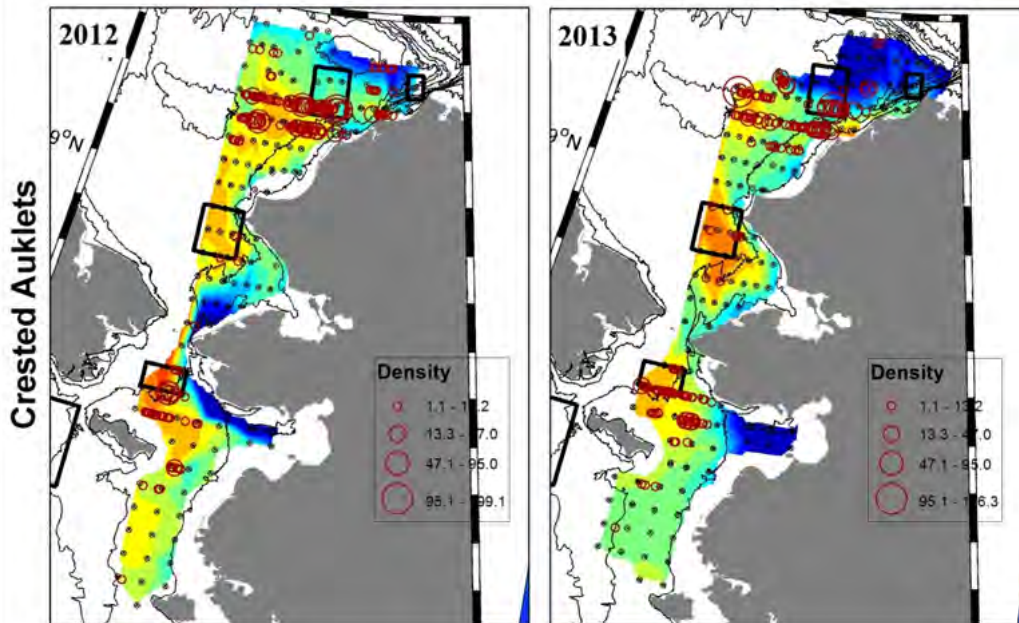
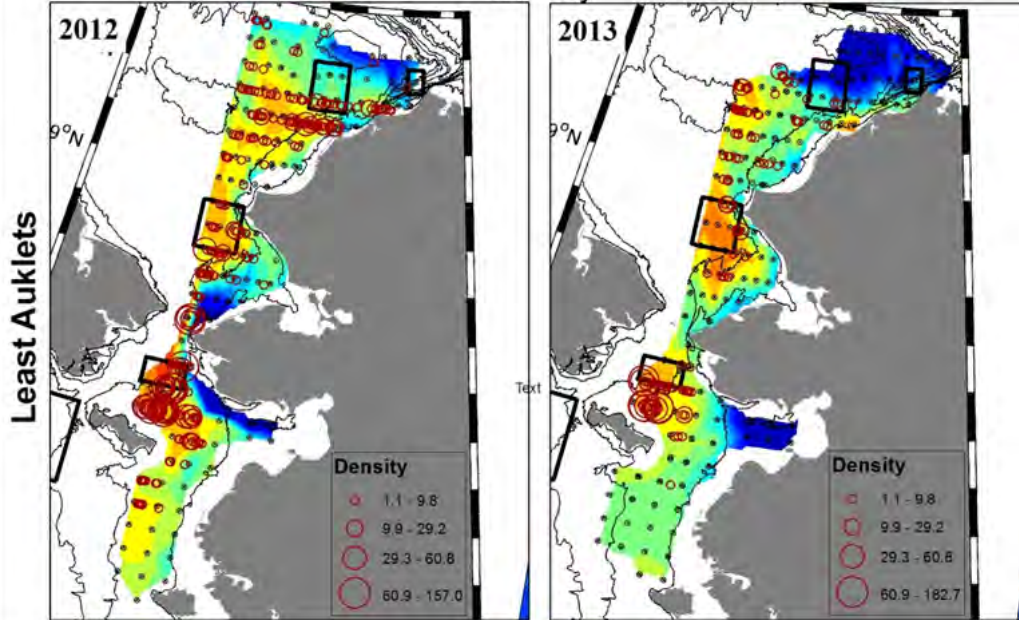
2014

NE Chukchi



2014

Salinity



Seabird Distribution varies among years

Example:

Total Seabird density higher in 2012 than in 2013, especially in N. Chukchi Sea.

Auklets (planktivores) [red circles] accounted for most of the change



Most auklets occurred in fairly saline waters (associated with higher zooplankton abundance?)