2018 ACOUSTIC-TRAWL SURVEY OF EASTERN BERING SEA SHELF WALLEYE POLLOCK – PRELIMINARY RESULTS

6 June –26 August
NOAA ship *Oscar Dyson*

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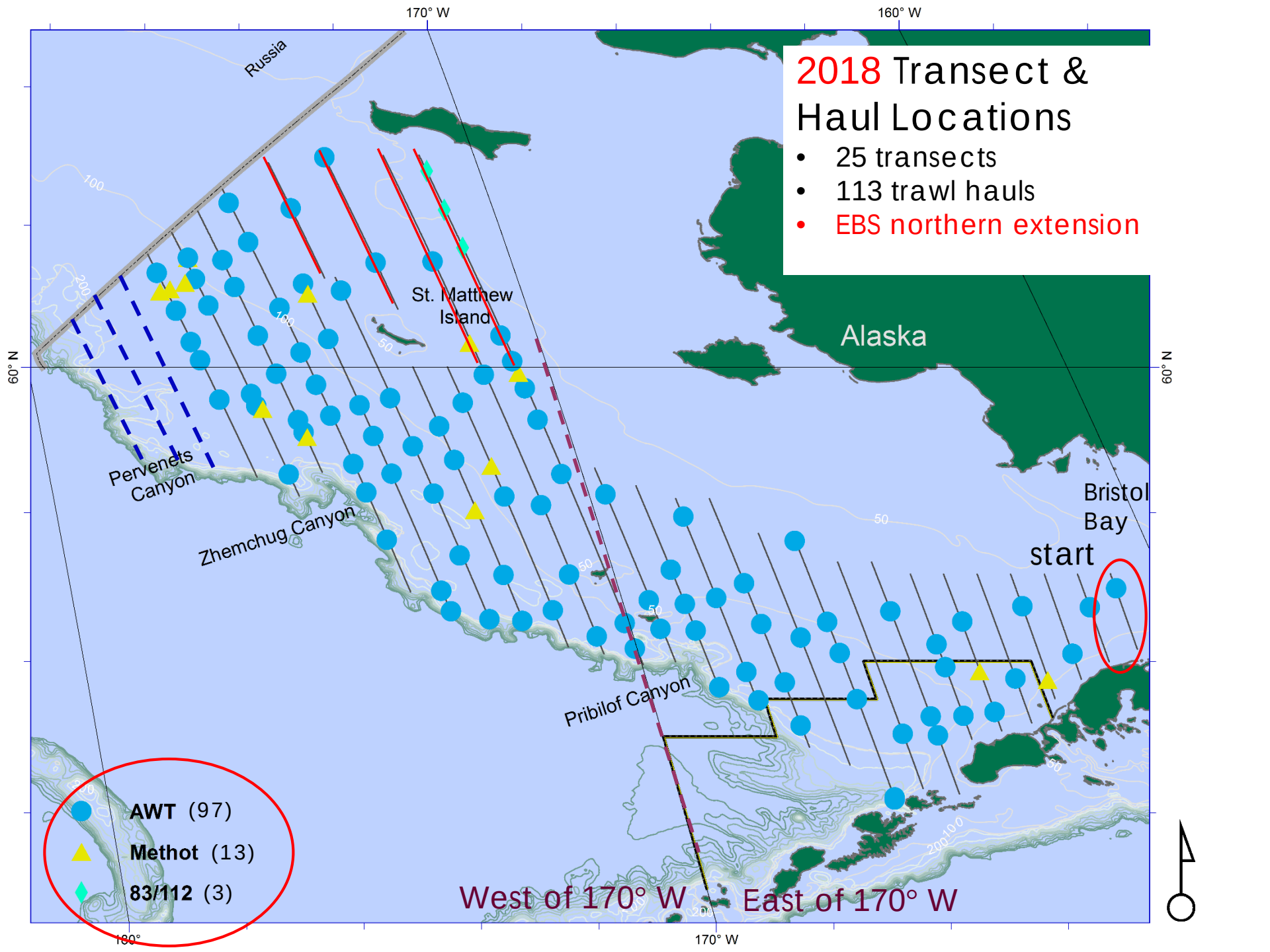
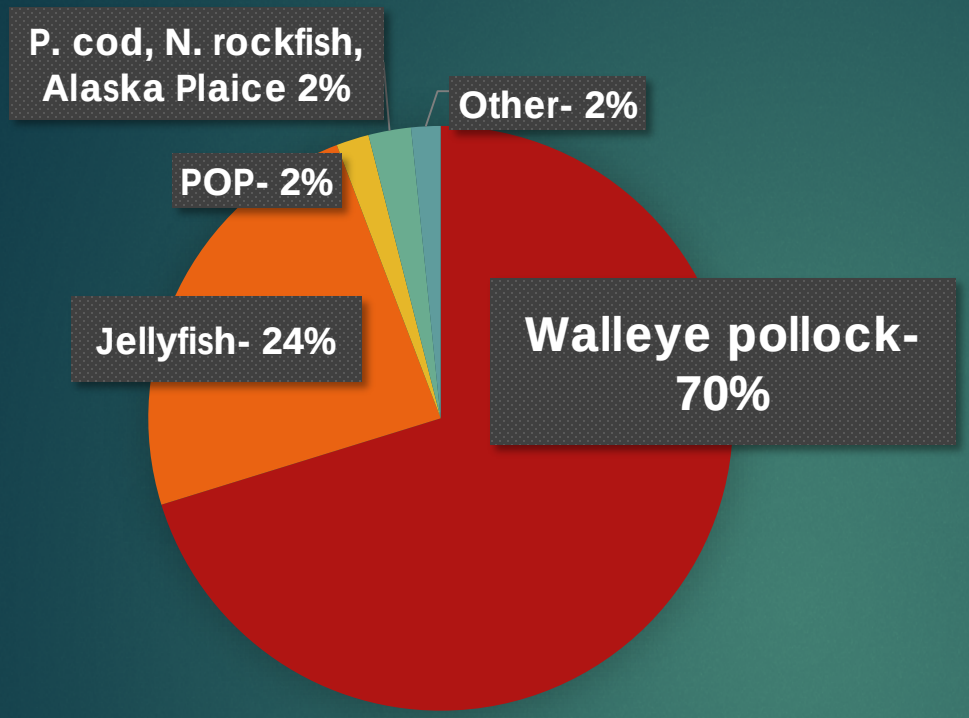
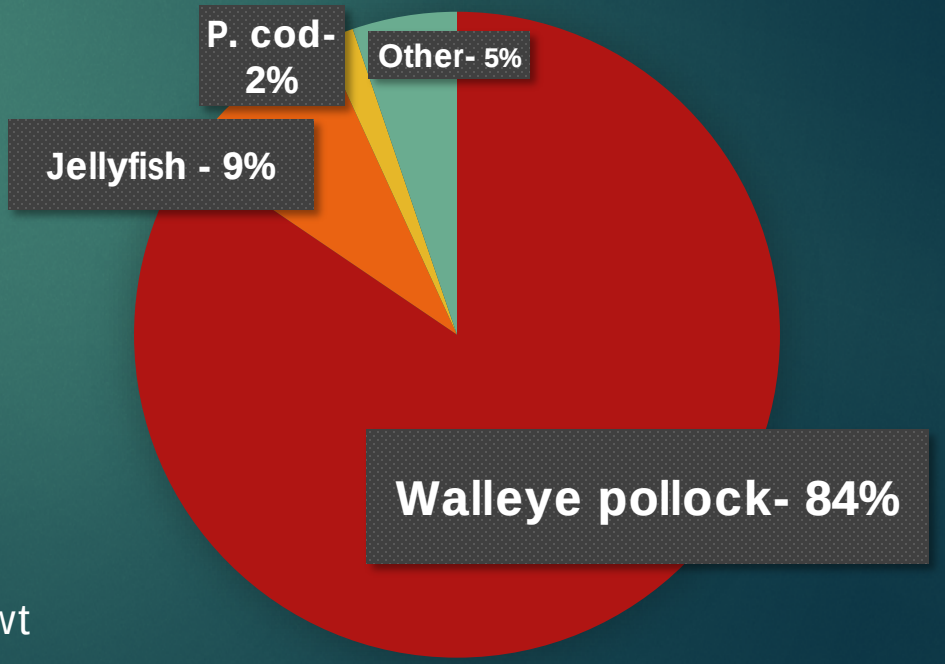
and MACE Program
Alaska Fisheries Science Center


2018 Transect & Haul Locations
• 25 transects
• 113 trawl hauls
• EBS northern extension
170° W
160° W
180°
60° N
Russia
St. Matthew Island
Alaska
Pervenets Canyon
Zhemchug Canyon
Pribilof Canyon
Bristol Bay
start
AWT (97)
Methot (13)
83/112 (3)
West of 170° W
East of 170° W

97 midwater trawls – catch by weight

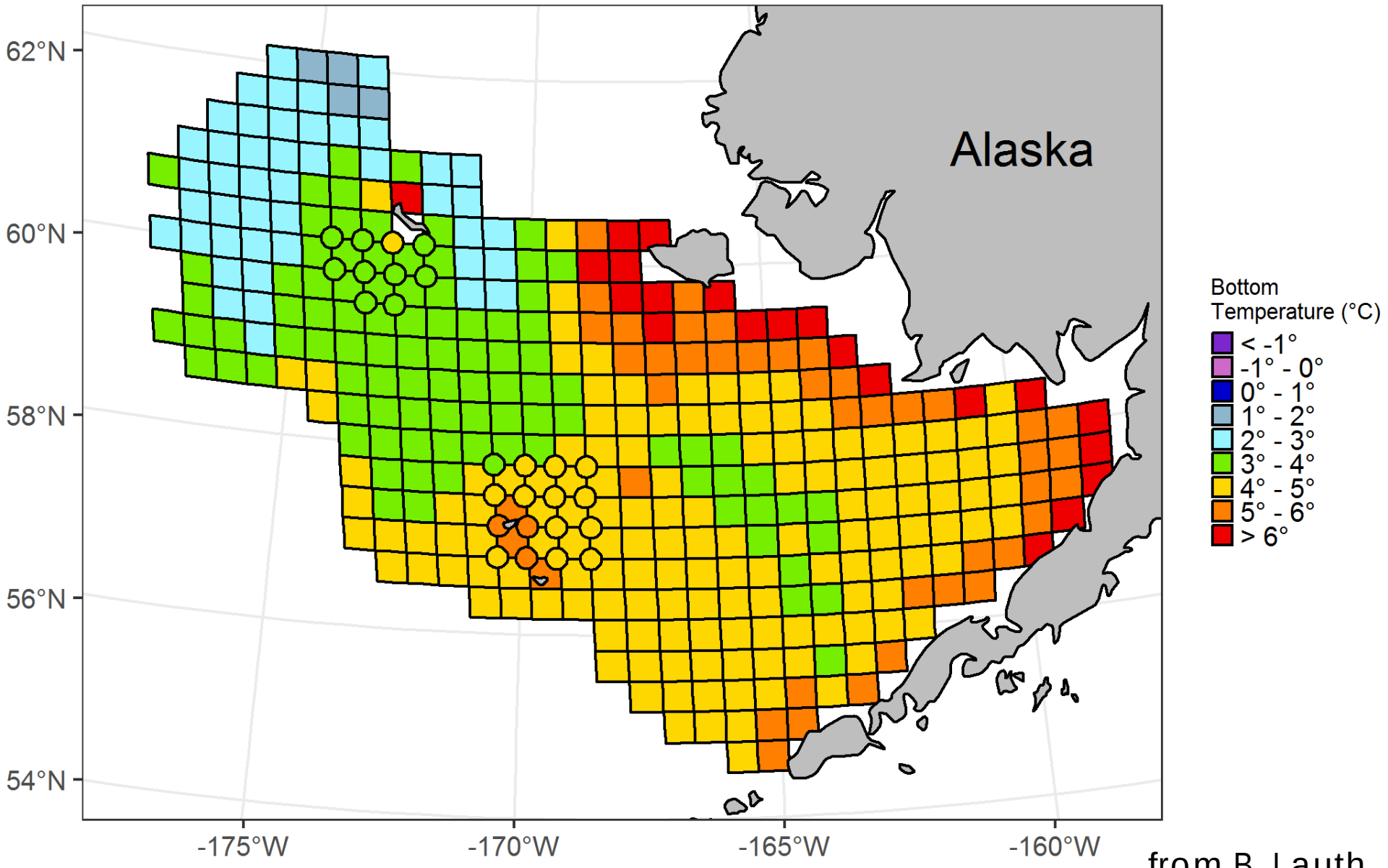


3 bottom trawls- catch by weight



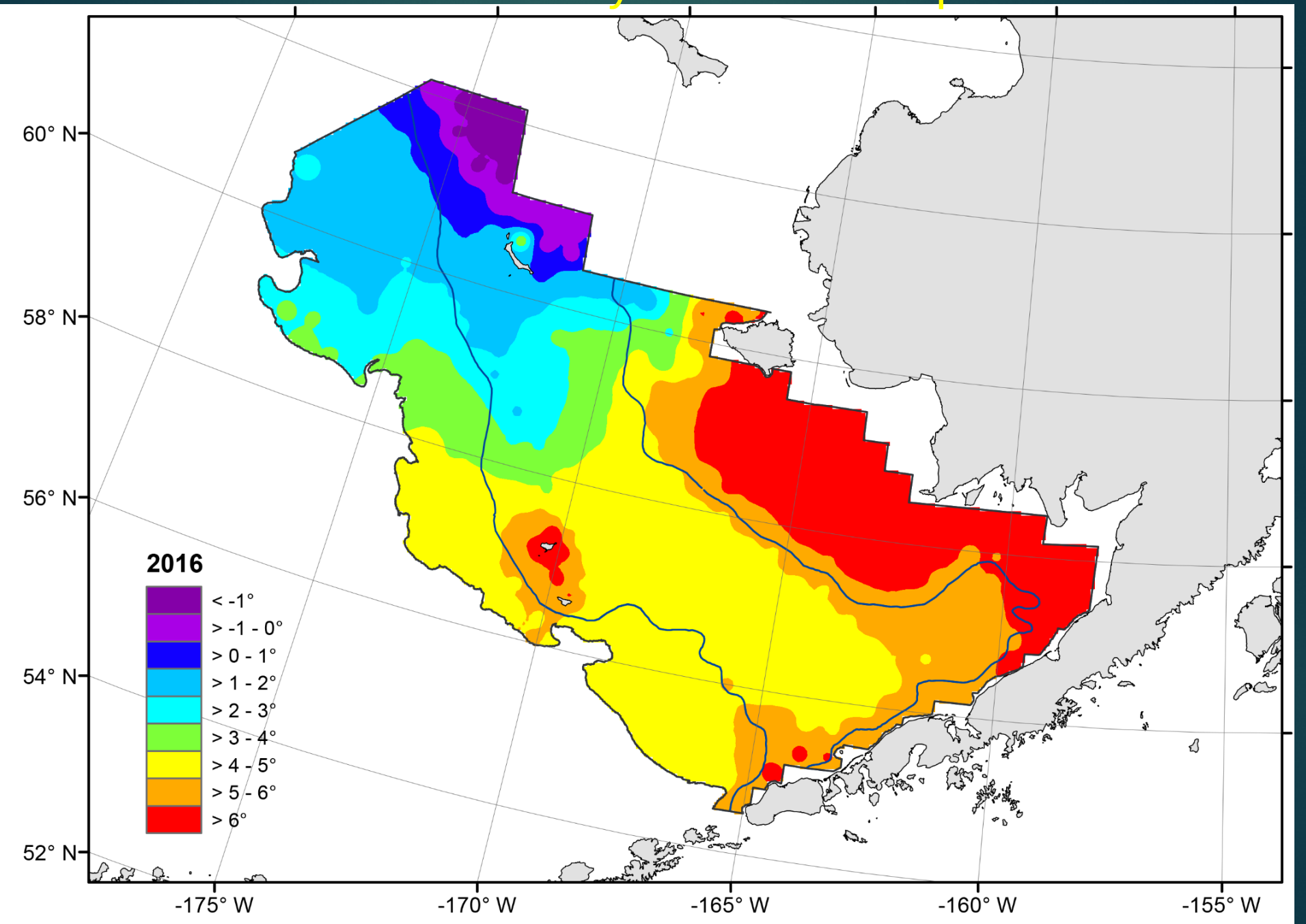
*“other “– long list of species with v. small % wt

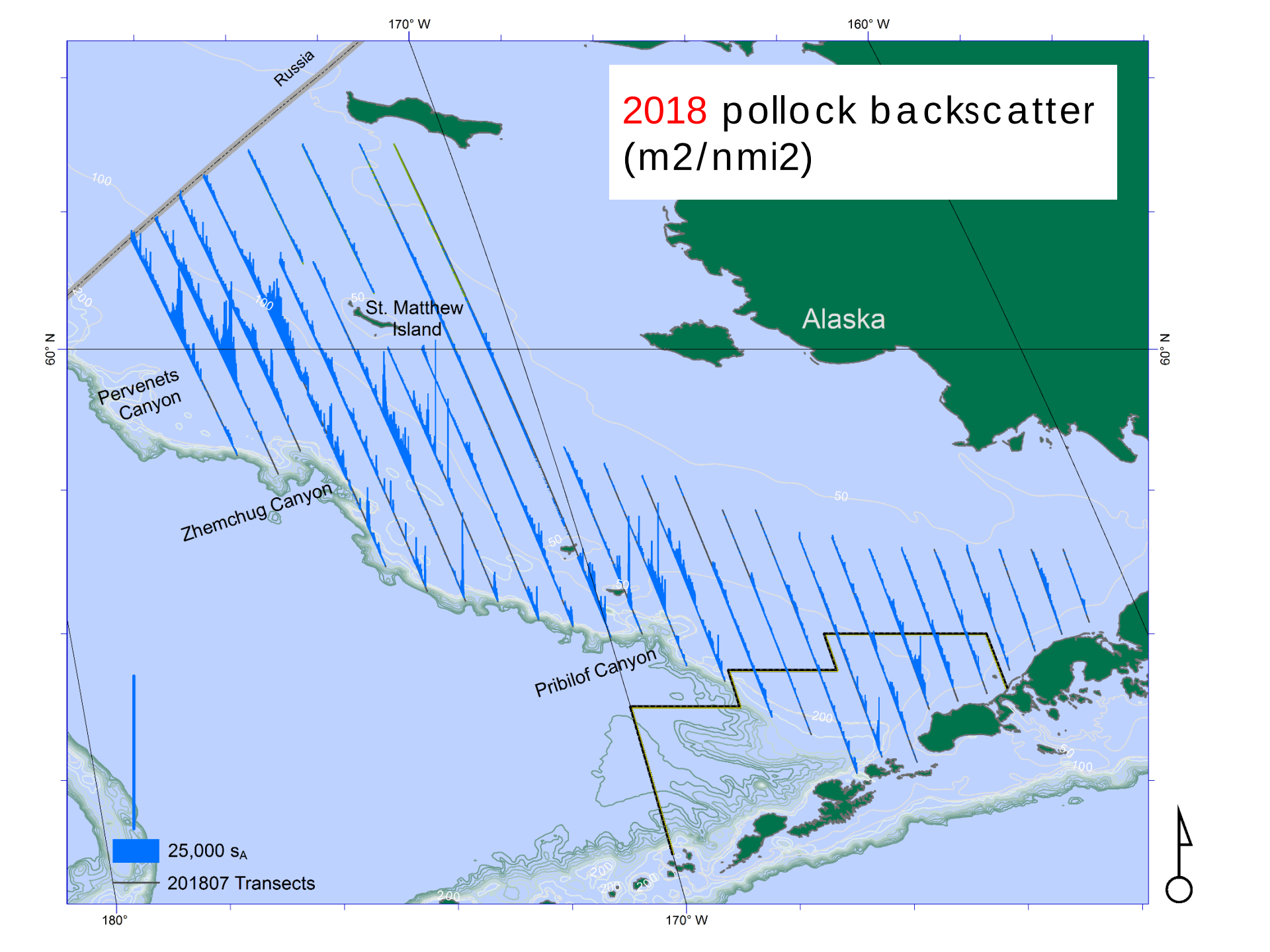
2018 Bottom trawl survey bottom temperatures

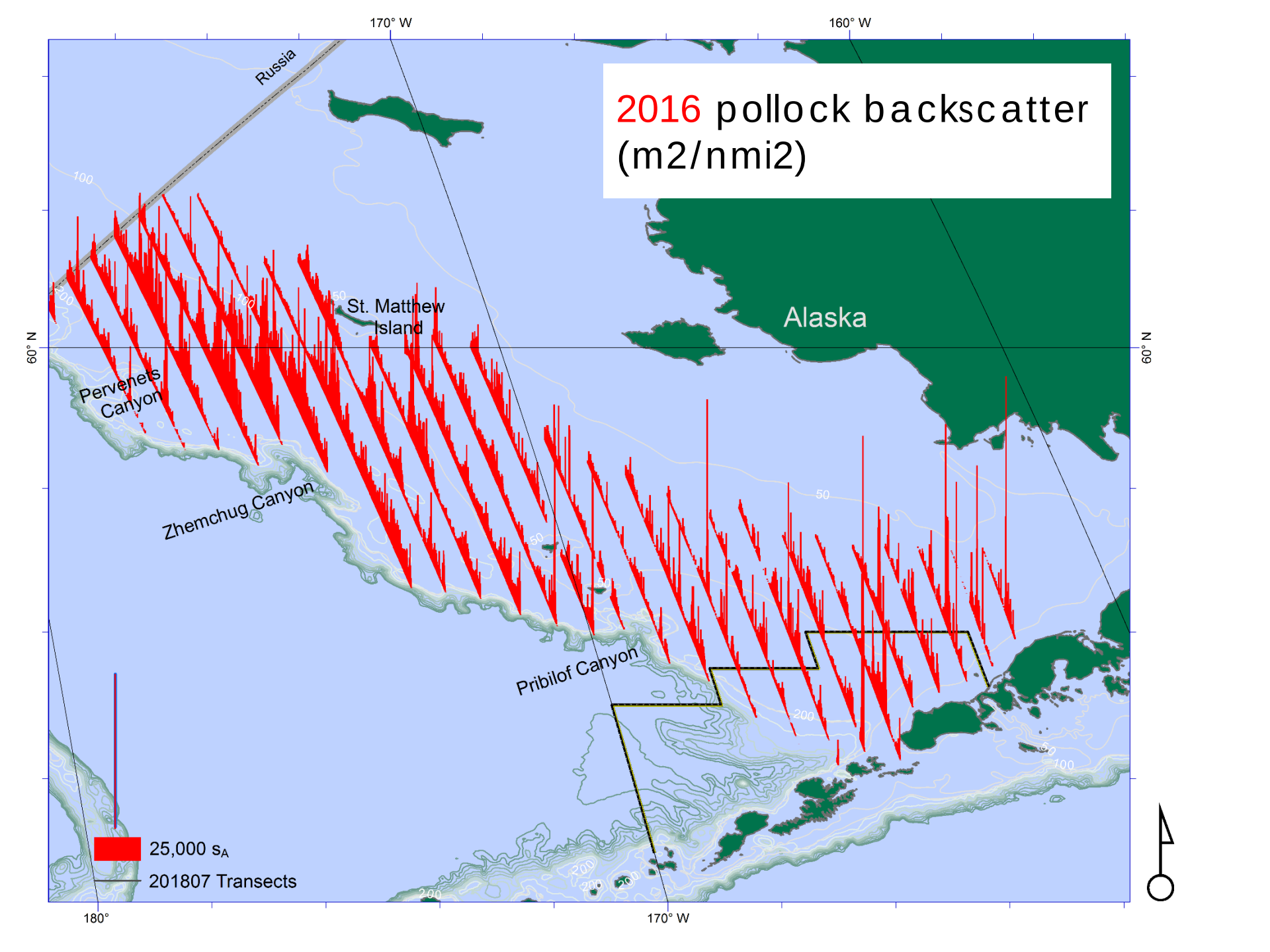


from B. Lauth

2016 Bottom trawl survey bottom temperatures




2018 pollock backscatter (m2/nmi2)
170° W
160° W
180°
170° W
60° N
60° N
Russia
Alaska
St. Matthew Island
Pervenets Canyon
Zhemchug Canyon
Pribilof Canyon
25,000 sA
201807 Transects


2016 pollock backscatter (m2/nmi2)
170° W
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170° W
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Alaska
St. Matthew Island
Pervenets Canyon
Zhemchug Canyon
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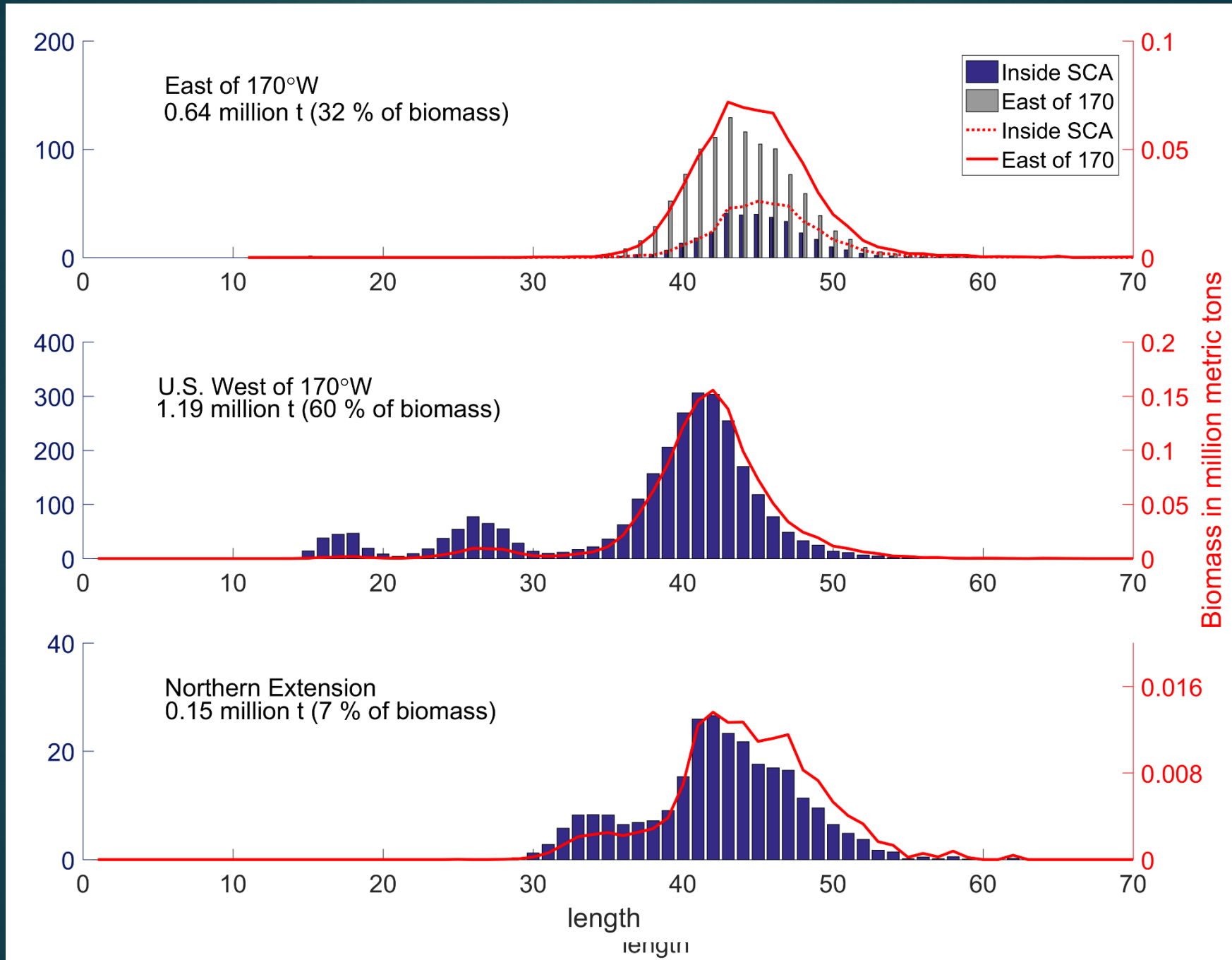
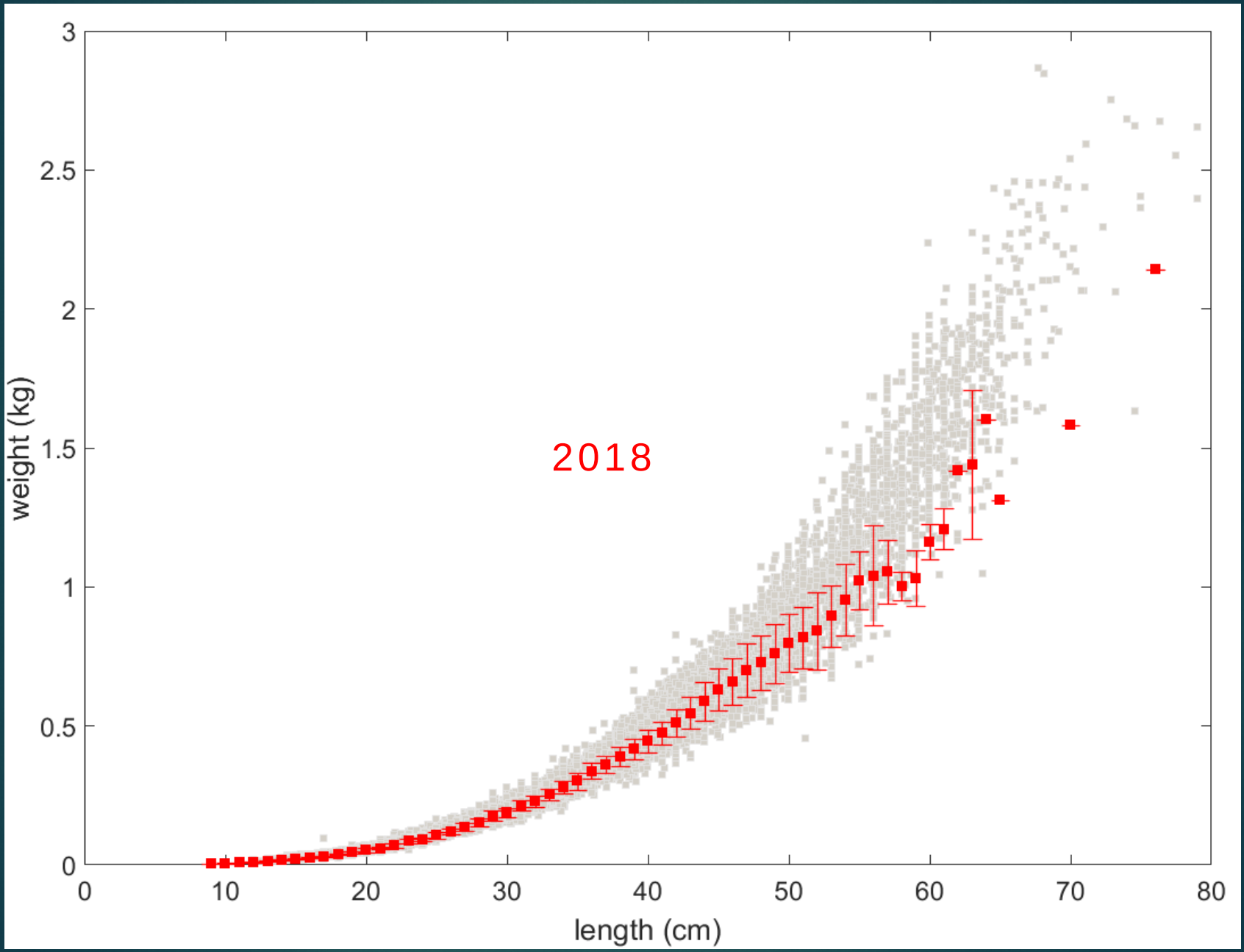
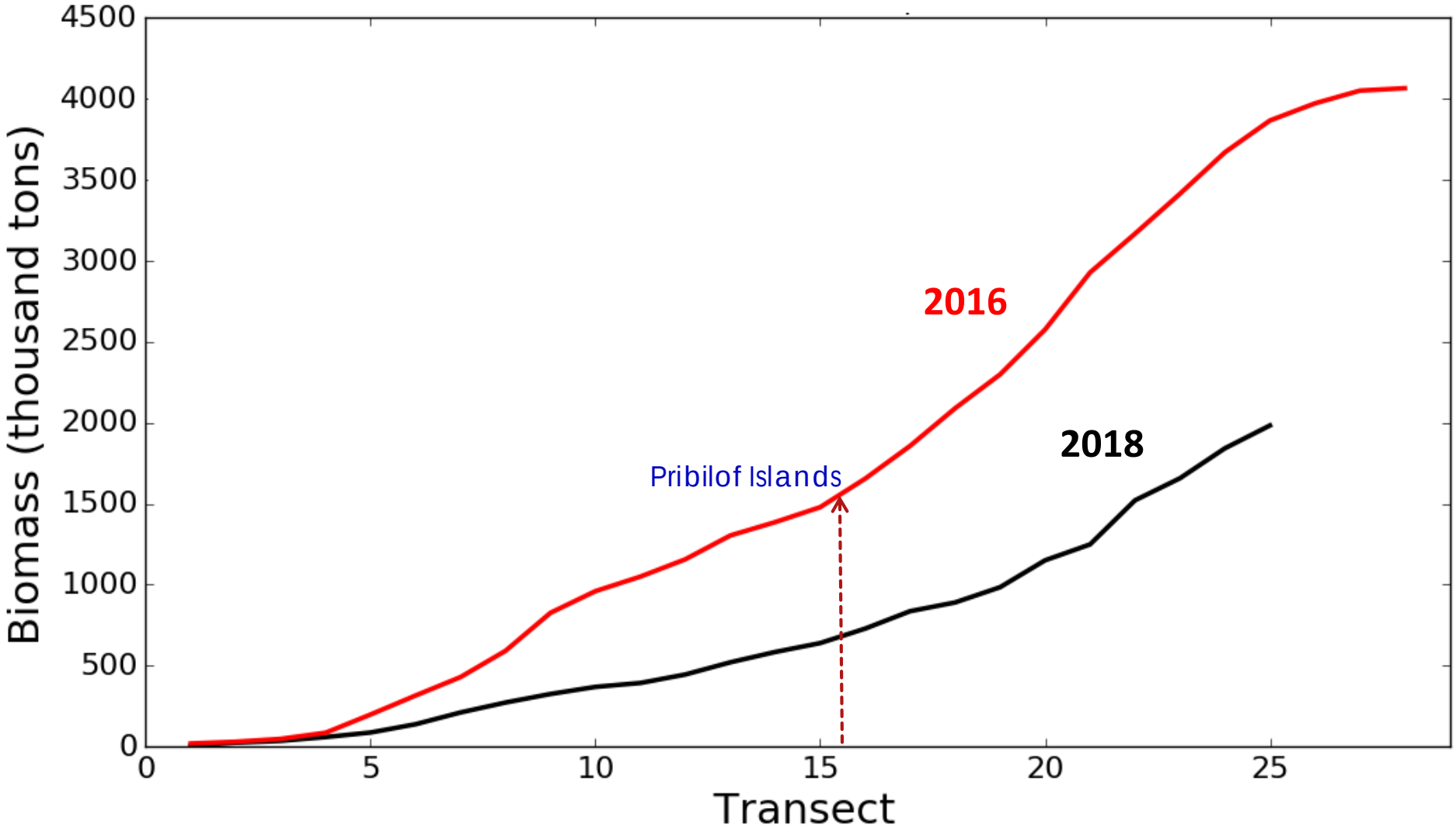
201807 Transects


East of 170°W
0.64 million t (32 % of biomass)
Inside SCA
East of 170
Inside SCA
East of 170
U.S. West of 170°W
1.19 million t (60 % of biomass)
Northern Extension
0.15 million t (7 % of biomass)
length
Biomass in million metric tons

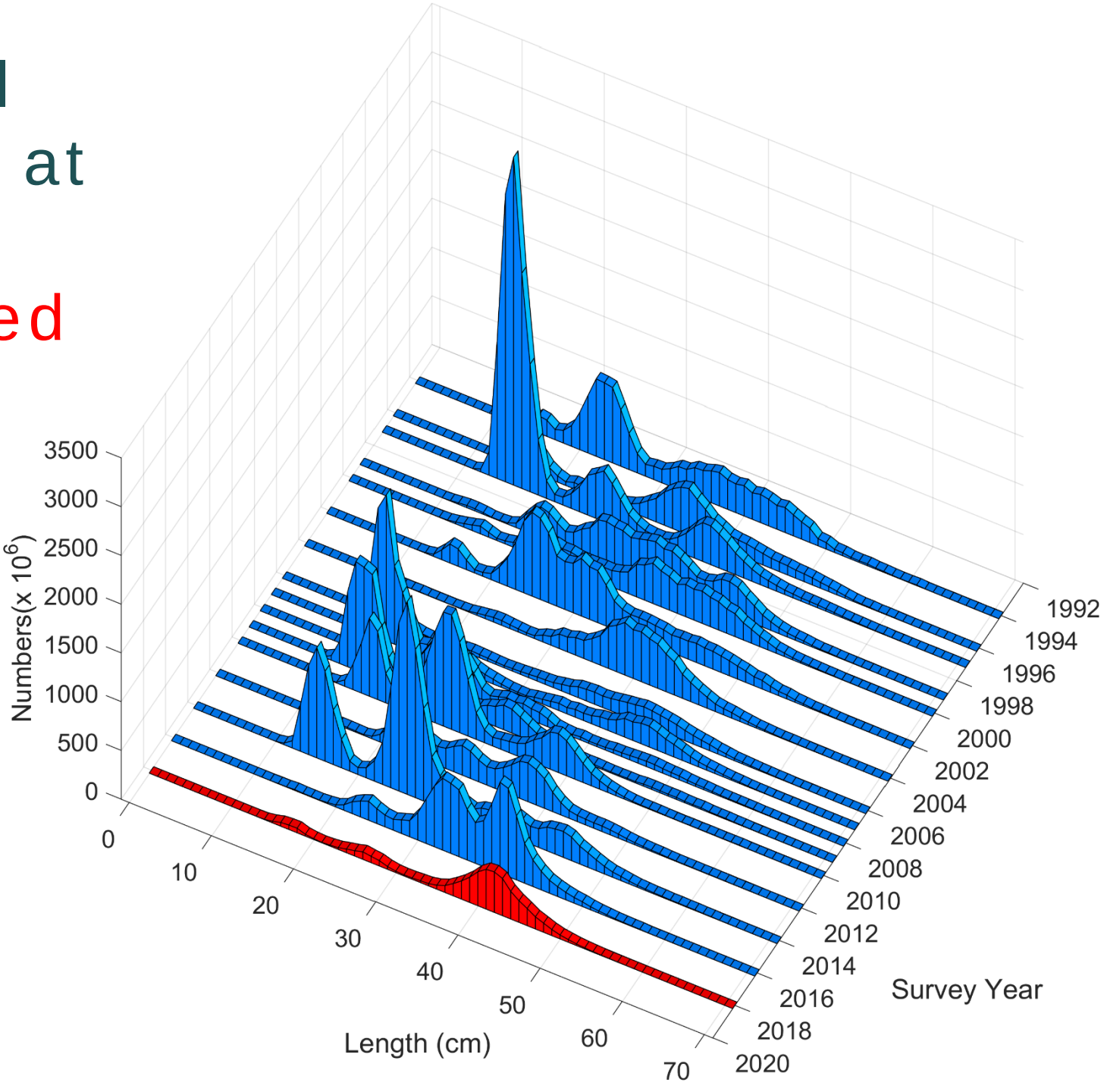
Walleye pollock length – weight relationship



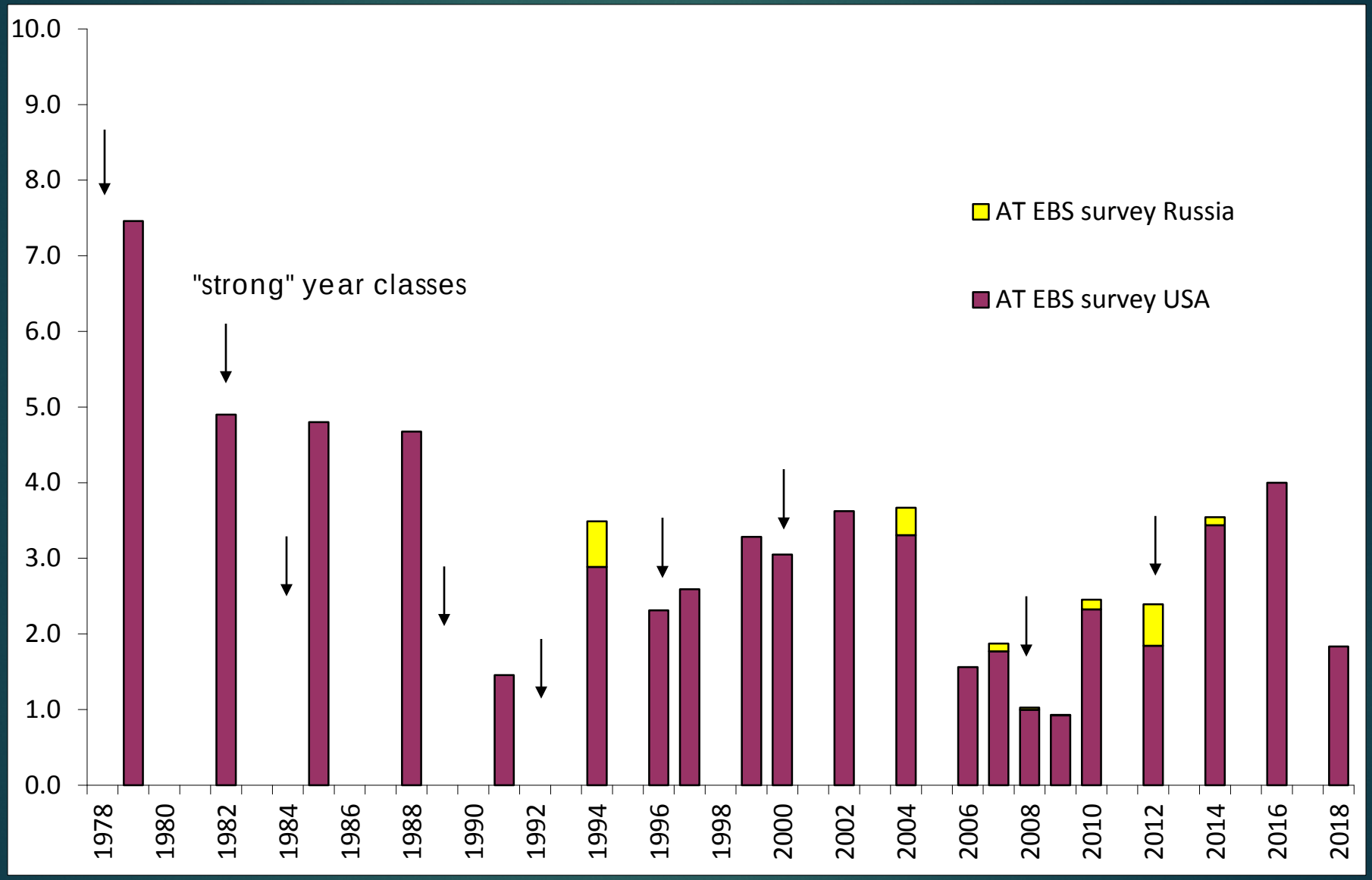
Cumulative biomass by transect 2018 vs. 2016



Historical numbers at length-
2018 in red



Acoustic-trawl survey walleye pollock biomass to 3 m off bottom



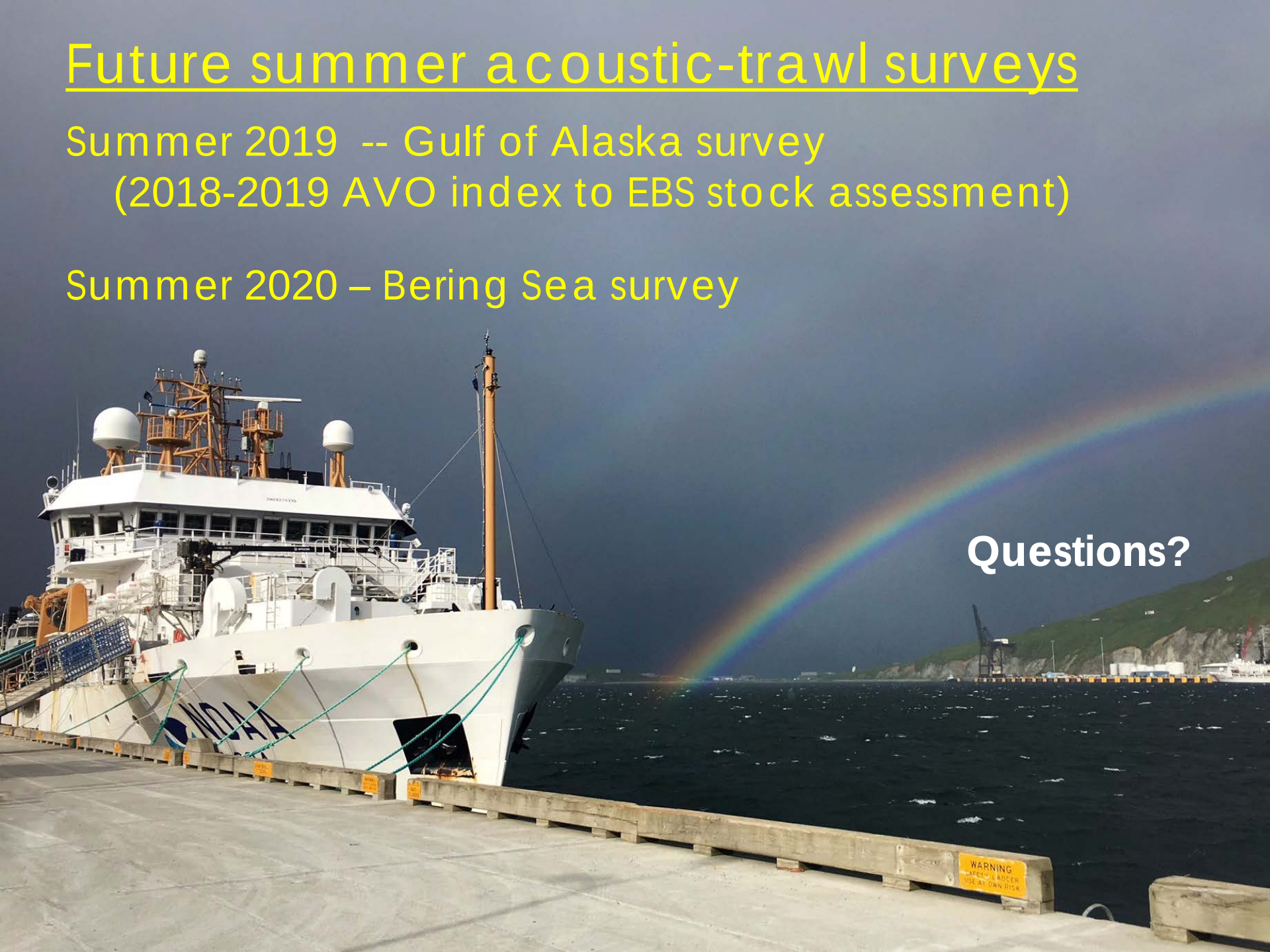
2018 AT survey preliminary results

- EBS summer shelf waters very WARM (warmer than 2014-2016)
- 2018 US EEZ midwater pollock biomass 1.8 million t- less than half of 2016 (4.0 million t)
- Little evidence of strong, incoming year class- just a few Age 1s near US/Russia border
- ~32 % pollock biomass east of 170 ° W in U.S. -- mainly 2012/2013 year classes; age 5 & 6s
- No survey of Russia's Cape Navarin area

Future summer acoustic-trawl surveys

Summer 2019 -- Gulf of Alaska survey
(2018-2019 AVO index to EBS stock assessment)

Summer 2020 – Bering Sea survey



Questions?

AT estimates between 0.5 and 3 meters off bottom

Method for determining near-bottom AT estimates:

- Find catch from closest bottom trawl stations for each EDSU
  - Within a max range of 25 nmi, weighted by 1/R distance
- Find proportion of backscatter that is from pollock using fitted coefficient values for each species and catch data
- Use proportion to scale backscatter between 0.5 and 3 meters

Biomass below 3 meters for 2018 is 0.33 million t
(18% increase when included)