



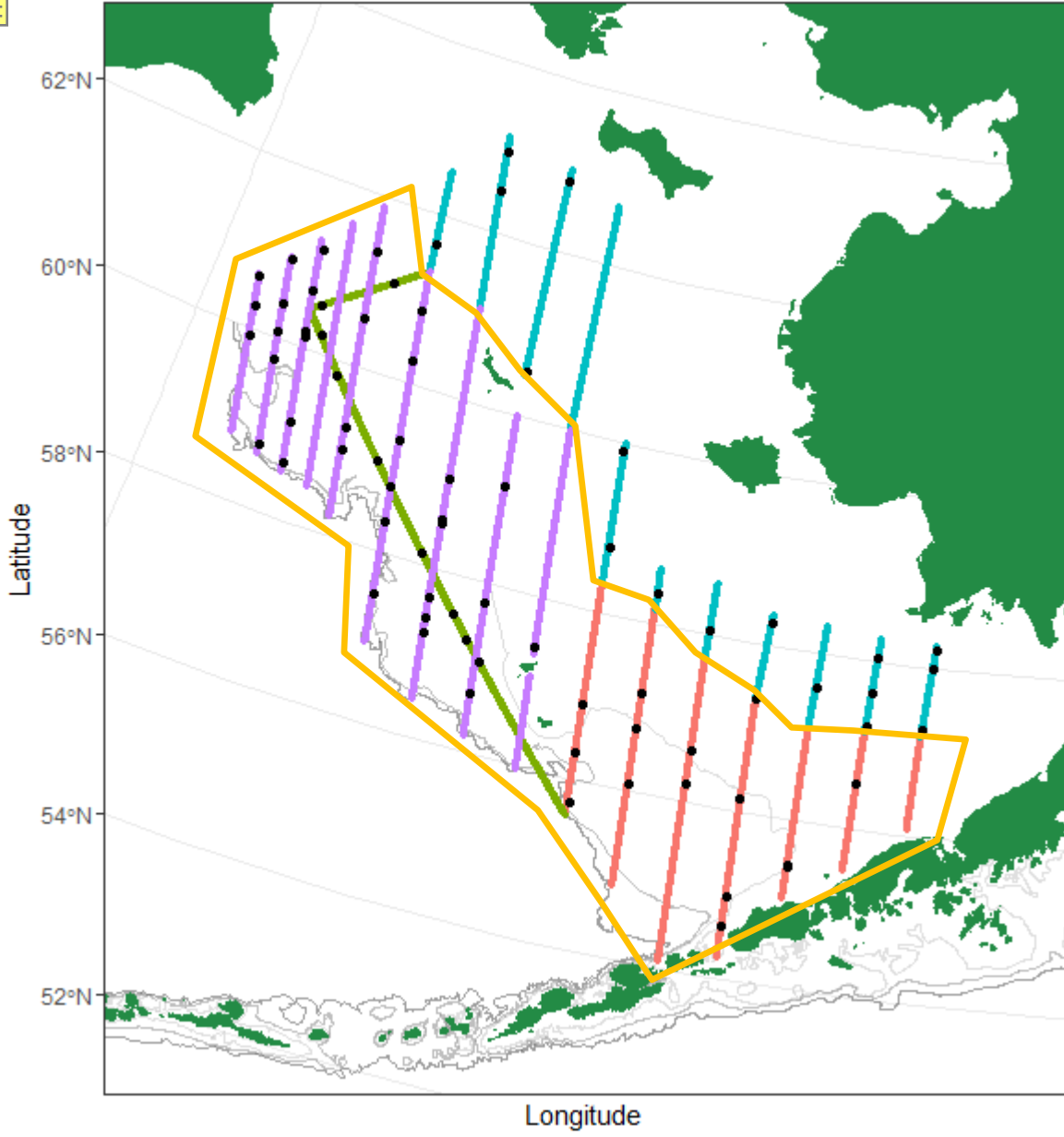
**NOAA  
FISHERIES**

# 2022 Acoustic-trawl survey of eastern Bering Sea shelf walleye pollock – preliminary results

2 June – 5 August  
NOAA ship *Oscar Dyson*

Sarah Stienessen, Taina Honkalehto,  
Abigail McCarthy, and MACE Program  
Alaska Fisheries Science Center



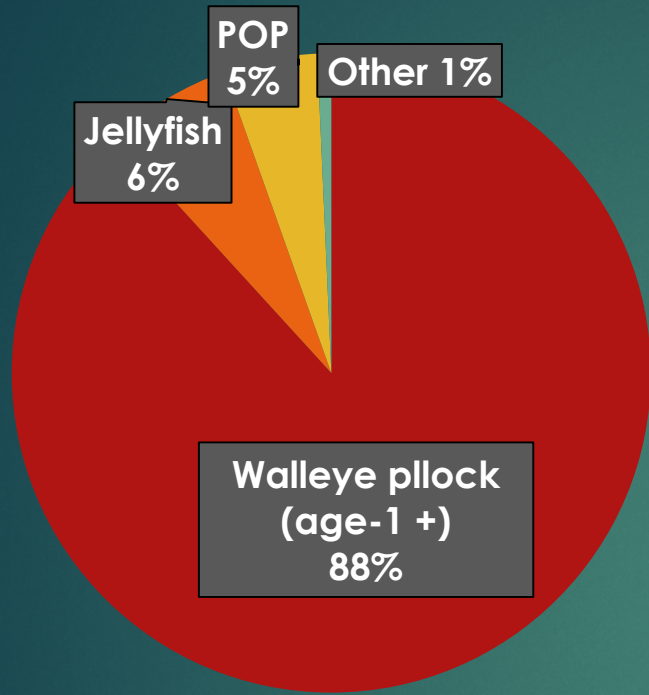


## 2022 Transect & Haul Locations

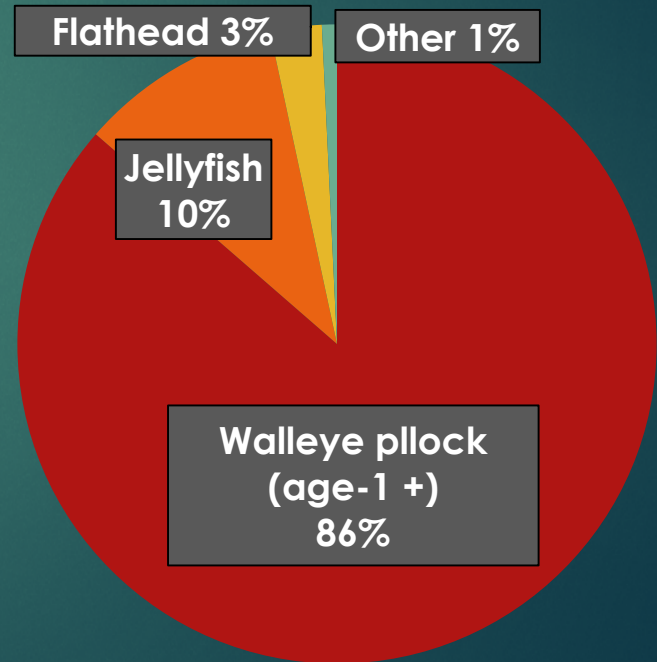
- 16 transects
- 67 midwater trawl hauls
- 3 bottom trawl hauls
- 5 methot hauls

—	East of 170° W
—	West of 170° W
—	Northern Extension
—	Cross Transect

# 67 midwater trawls – catch by weight

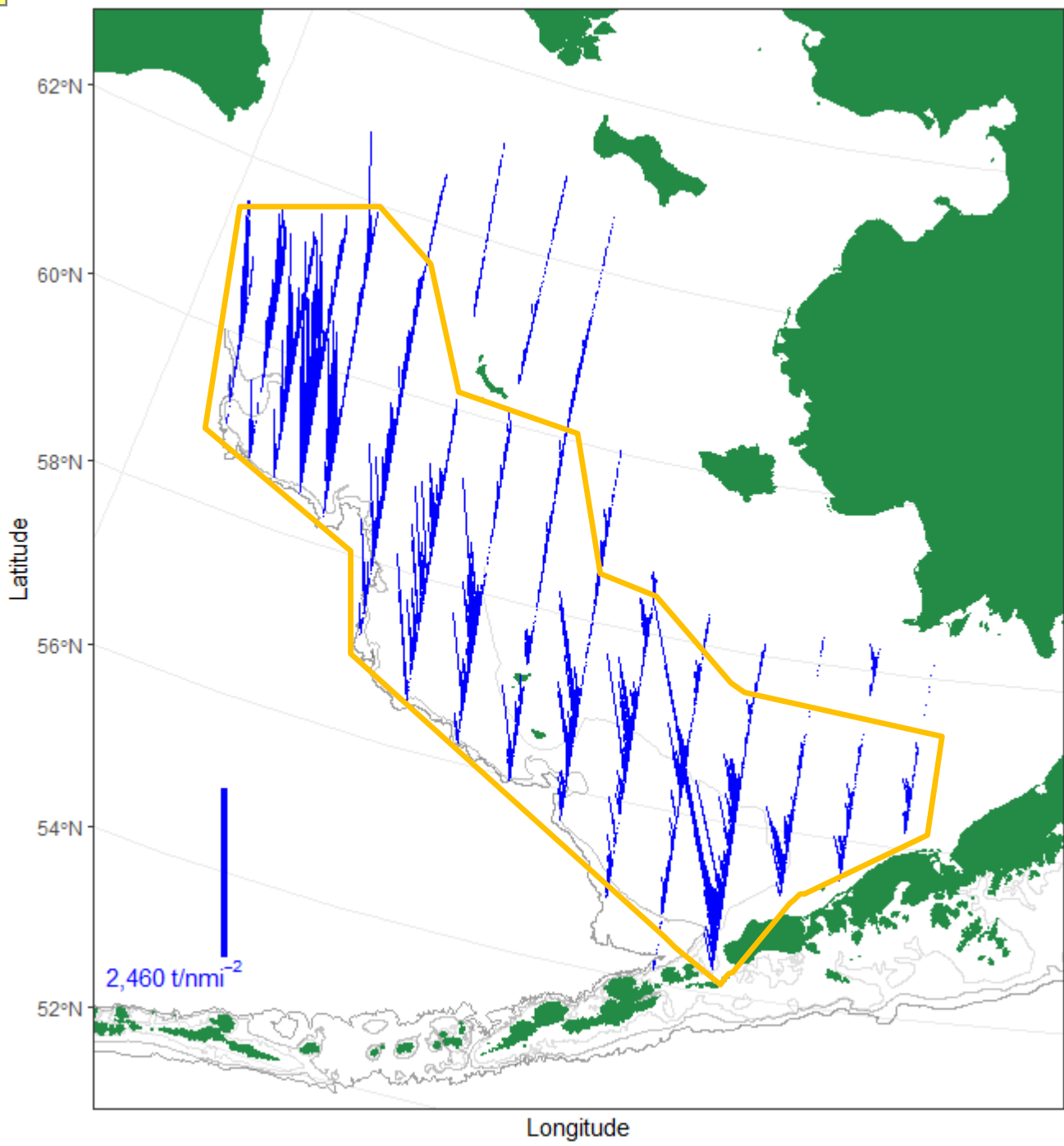


# 3 bottom trawls – catch by weight



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

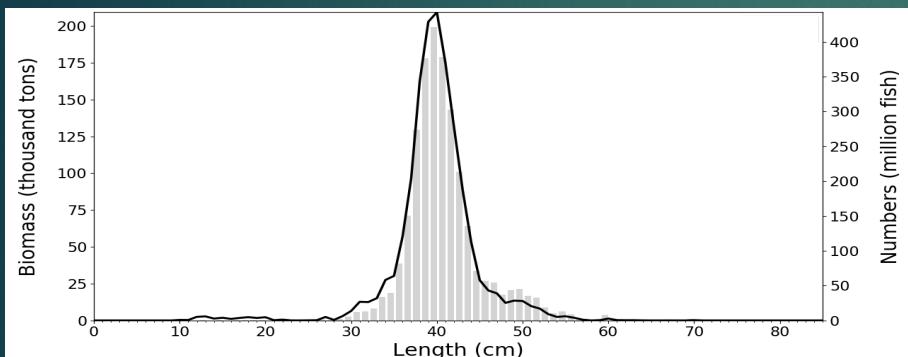
	Trawls Completed		
	83/112	LFS1421	Methot
East of 170	1	12	1
West of 170	1	31	2
Northern Extensions	1	16	1
Cross-shelf transects		8	1



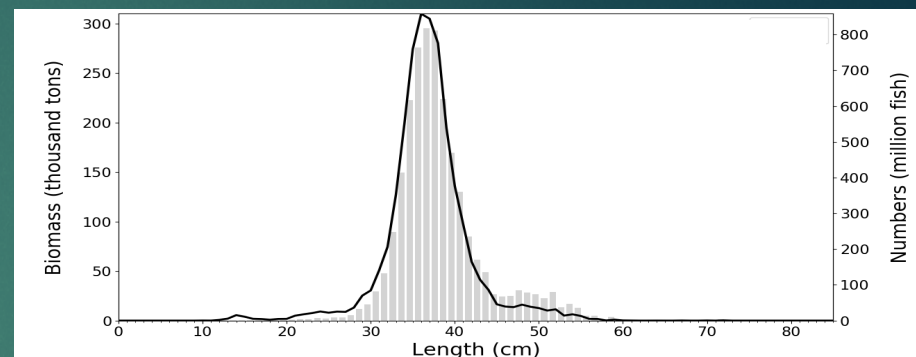
2022 age-1+ pollock biomass (to 0.5 m off bottom; t/nmi<sup>2</sup>)

# 2022 Biomass estimate (to 0.5 m off btm)

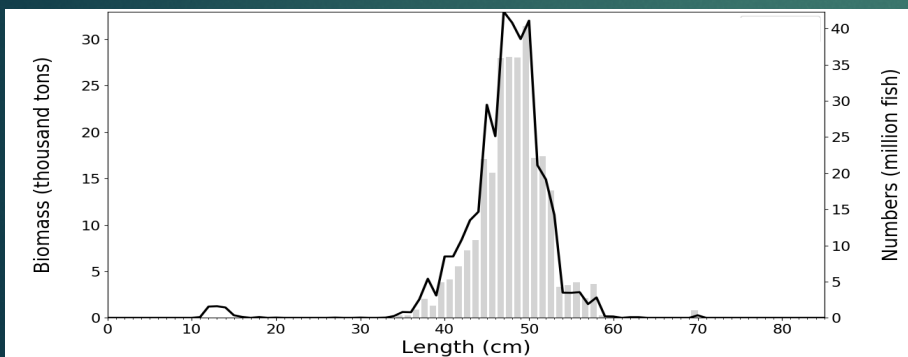
East of 170° W:  
1.4 million t  
3.0 billion fish



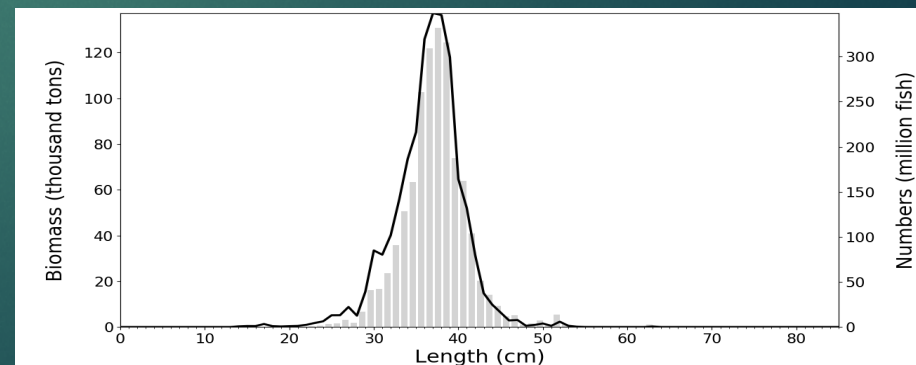
West of 170° W:  
2.4 million t  
6.8 billion fish



Northern Extension:  
0.3 million t  
0.4 billion fish

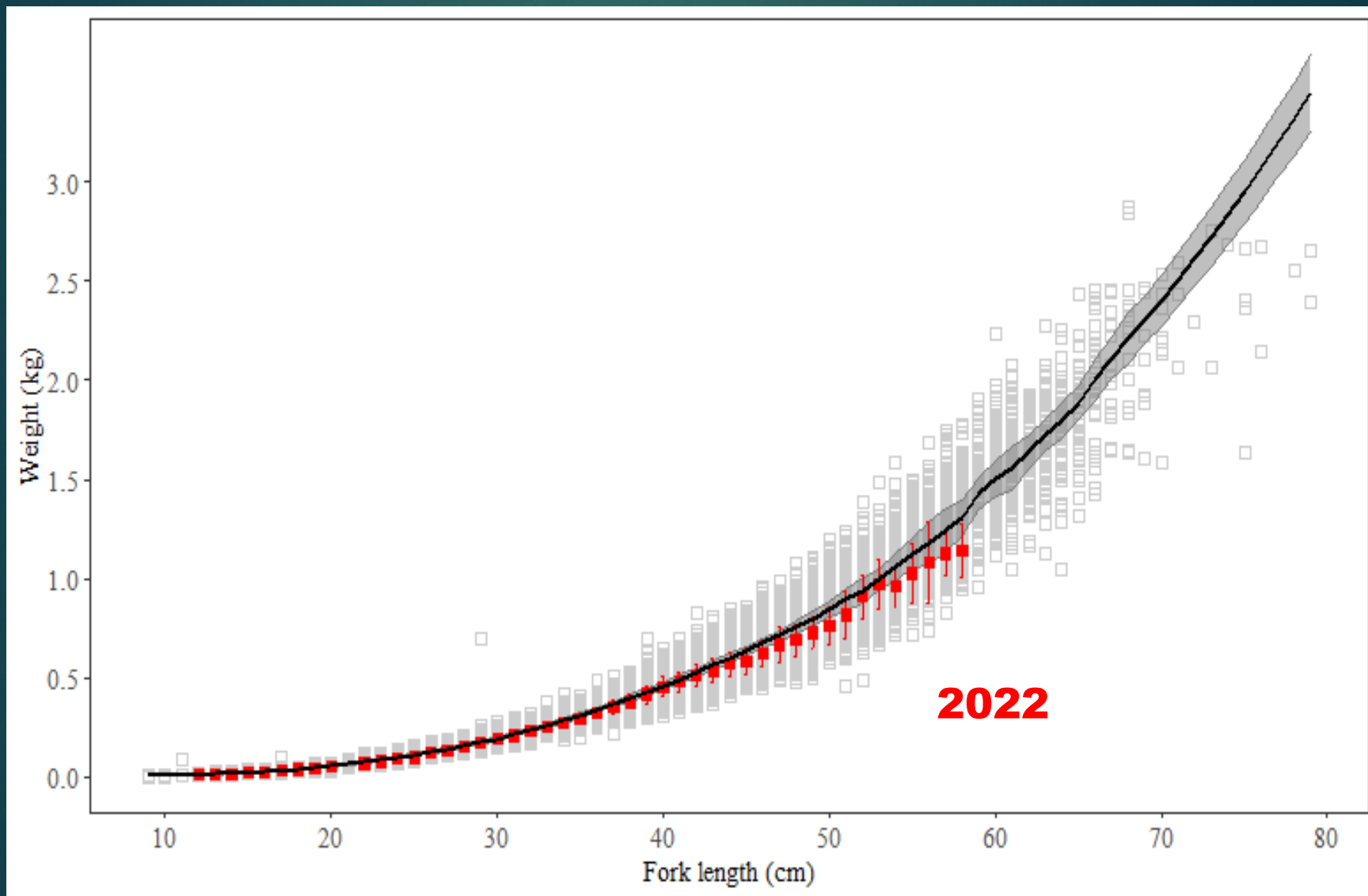


Cross Transects:



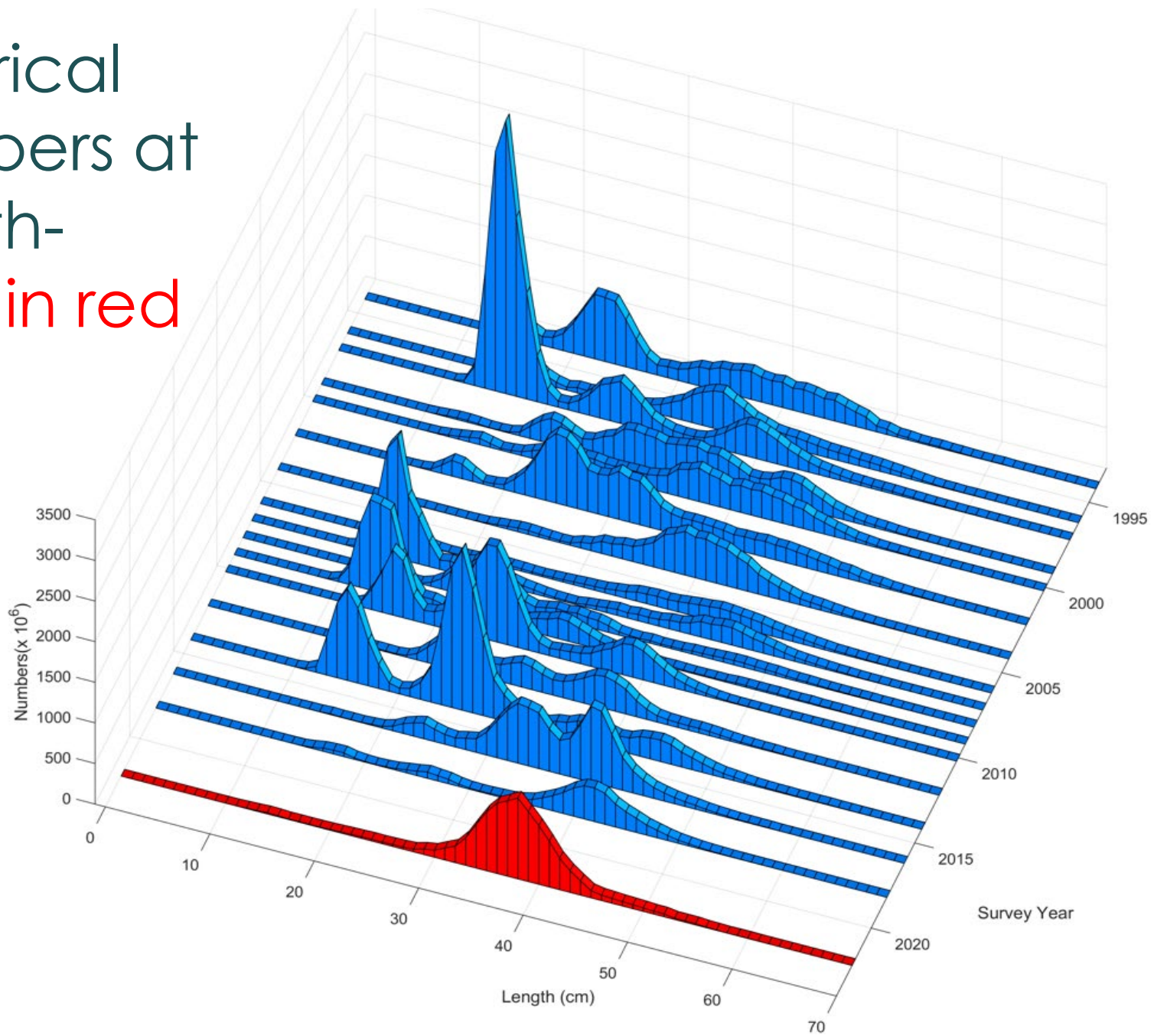


# Walleye pollock length – weight relationship



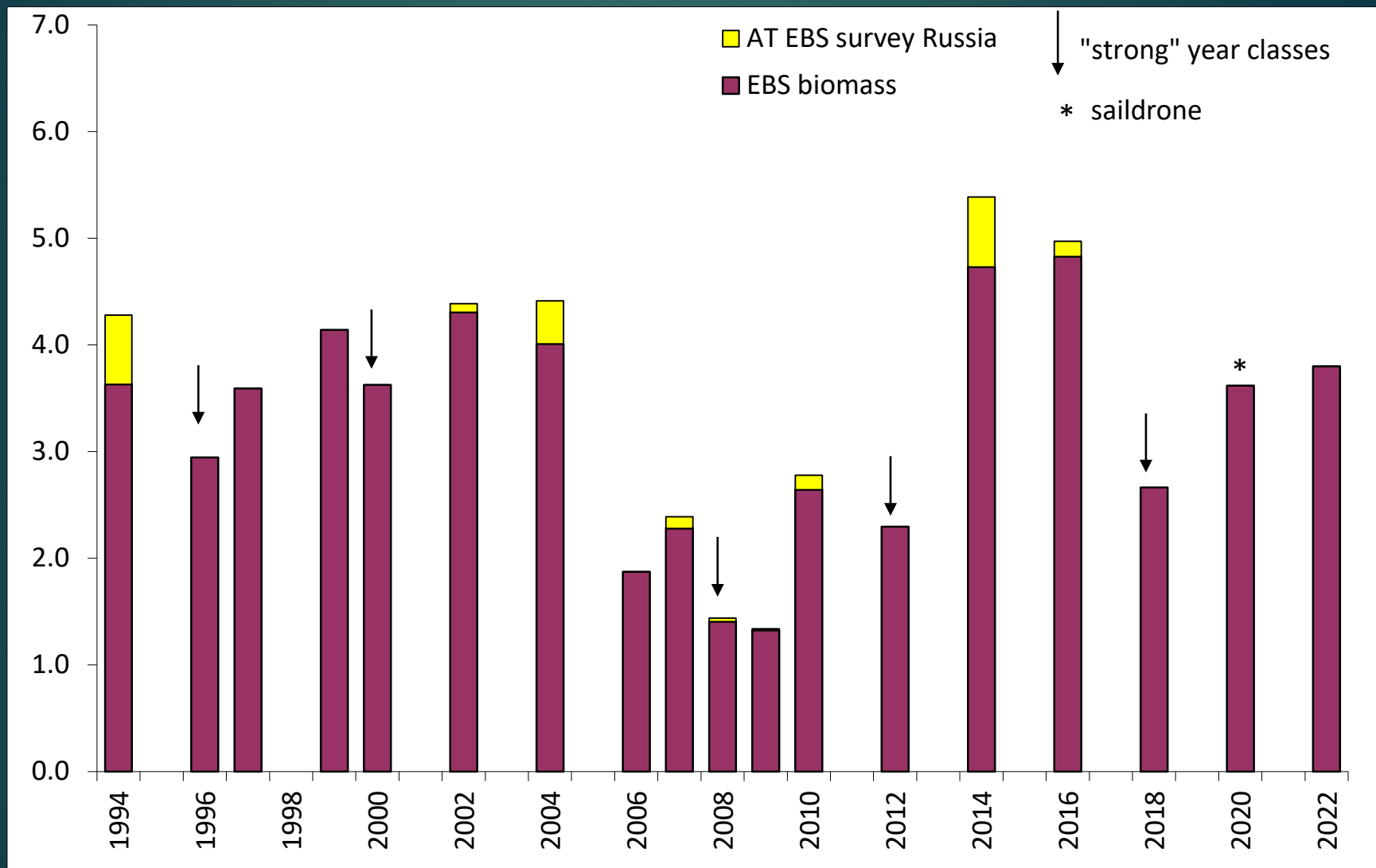


Historical numbers at length-  
2022 in red



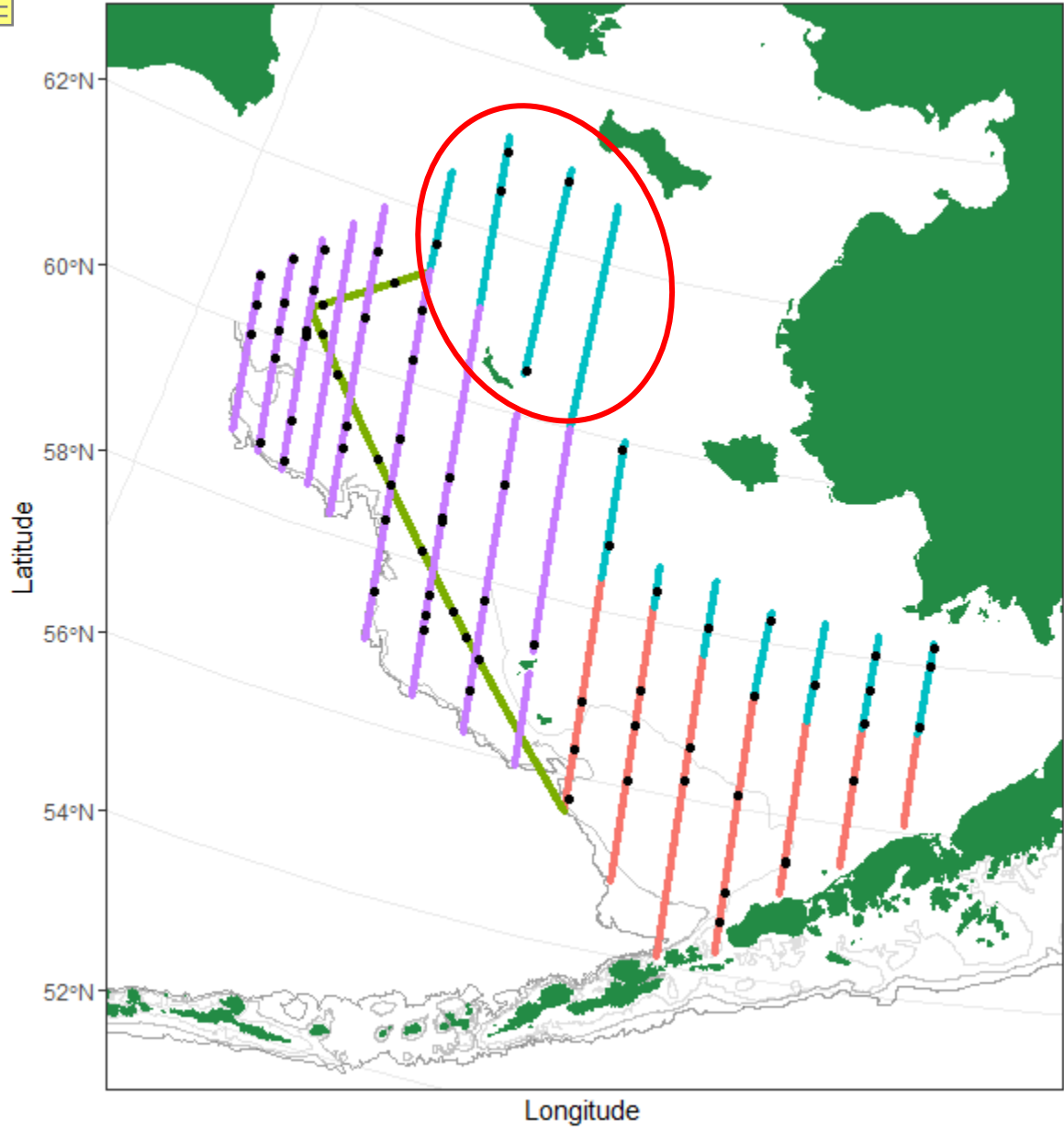
# Acoustic-trawl survey walleye pollock biomass to 0.5 m off bottom

Million metric tons



Survey year





## Northern Extension

(thousand tons)

**2022: 150.9**

**2018: 242.7**



# 2022 AT survey preliminary results

- 2022 US EEZ midwater (down to 0.5 m off bottom) pollock biomass 3.8 million t- up ~52% from 2018 and ~6% from 2020
- Walleye pollock length distributions were unimodal at ~40 cm fork length east of 170°W and ~36 cm FL west of 170°W
- In the northern extensions east of 170°W, backscatter in most of the water column was dominated by age-0 pollock
- In the northern extensions west of 170°W, backscatter was overall low
- Any age-1+ pollock observed in the northern extension was larger fish, with a mode of ~50 cm FL



# 2022 AT survey preliminary results

- Wider transect spacing and reduced trawling effort likely introduced additional uncertainty into survey results
- High proportion of pollock in catches coupled with consistency in pollock length-frequency composition over the core survey area suggest that the species and size composition were adequately covered
- Walleye pollock backscatter and length distributions observed on the cross transects at the end of leg 3 were similar to those observed in the core survey area (~4 weeks earlier)



# Future summer acoustic-trawl surveys

Summer 2023 -- Gulf of Alaska survey

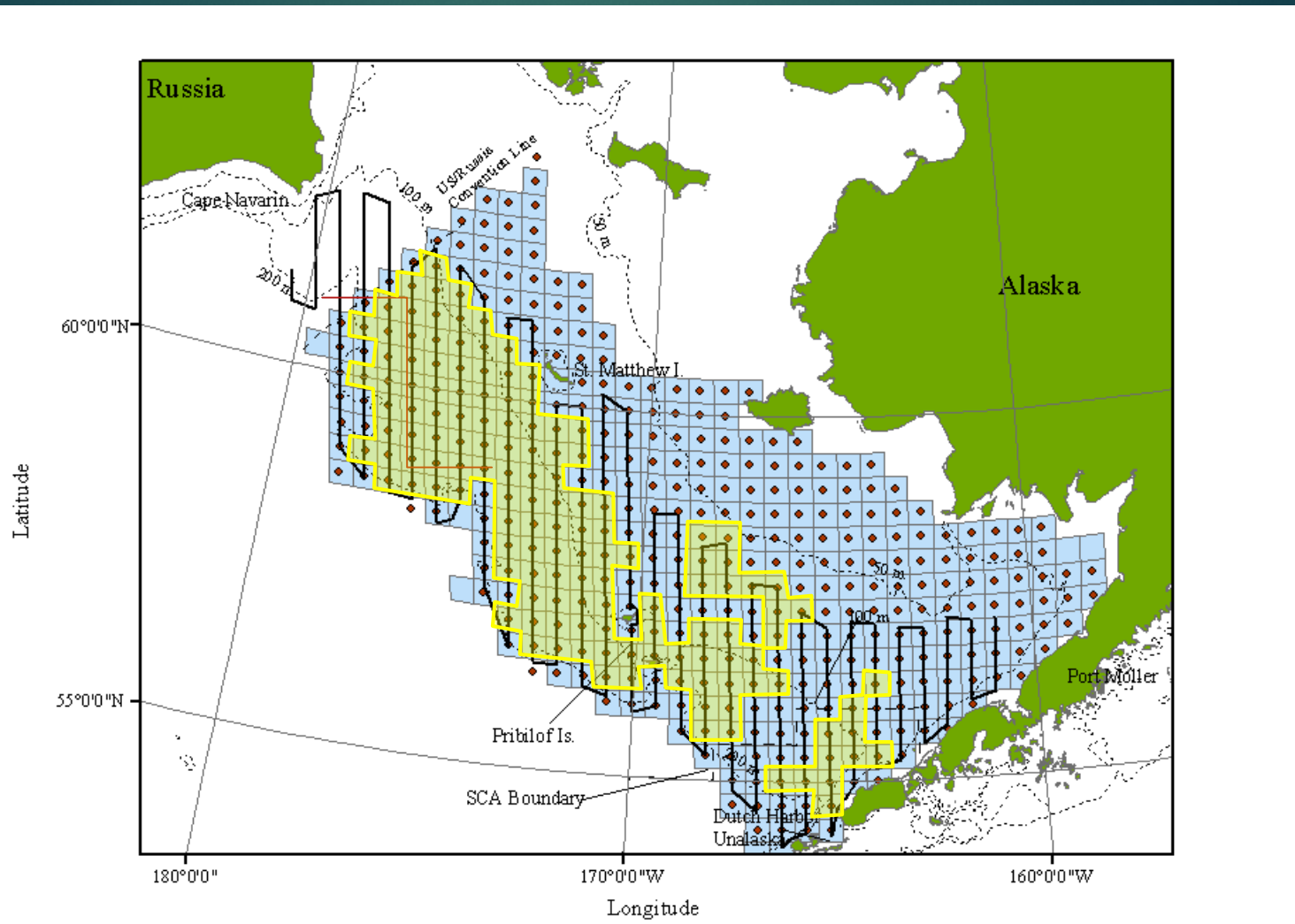
Summer 2024 – Bering Sea survey

(annual AVO index to EBS stock assessment)



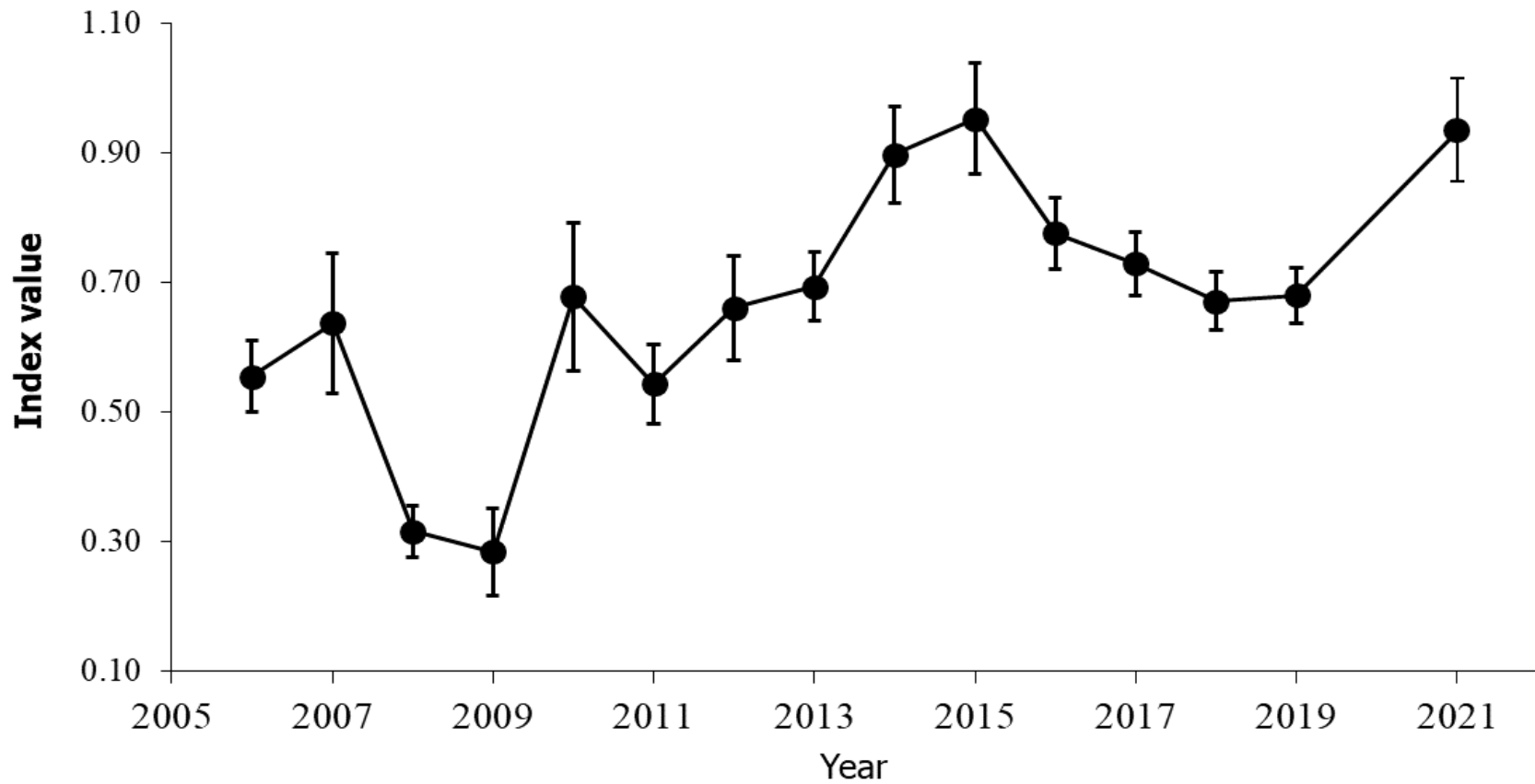
# AVO (index of midwater pollock from bottom trawl survey acoustics)

N. Lauffenburger, T. Honkalehto, S. Stienessen, P. Ressler

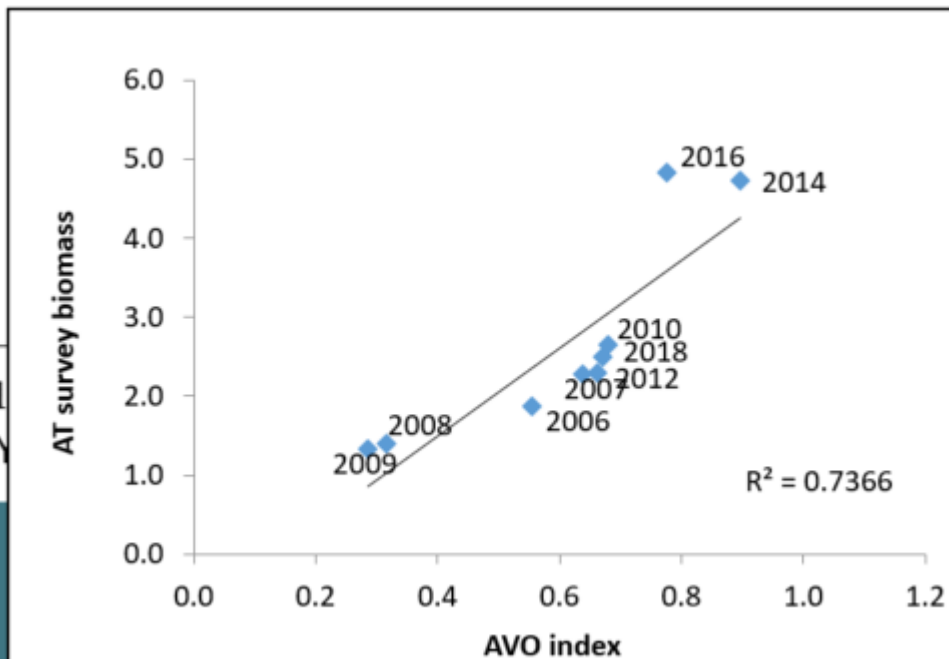
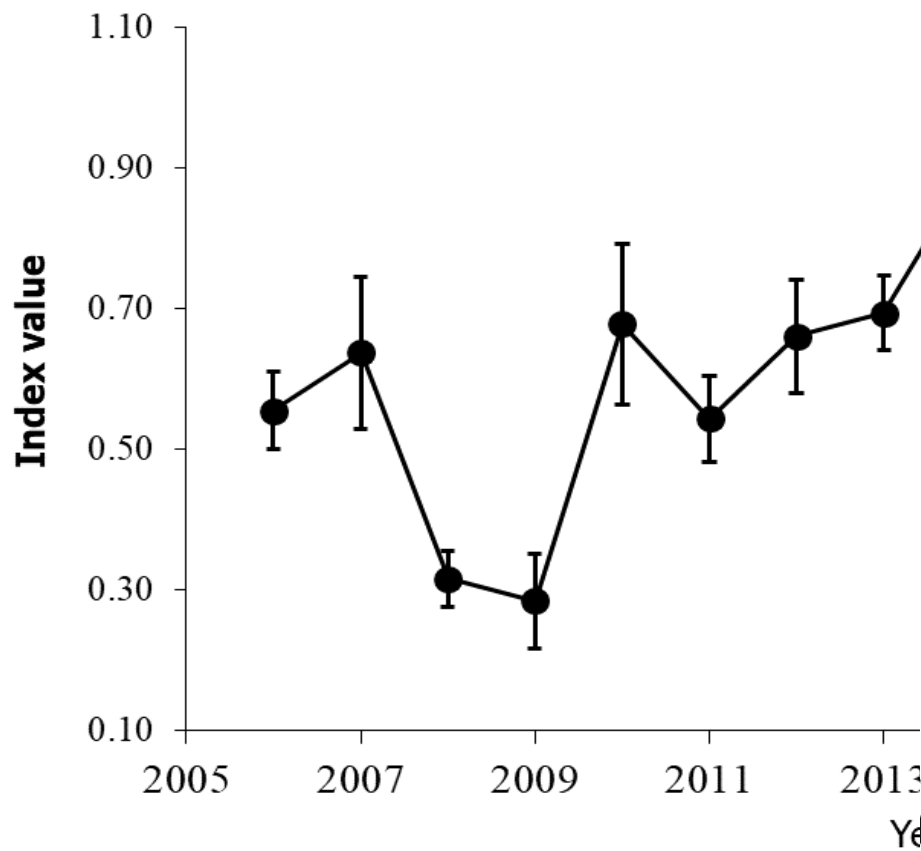




# AVO Index Time Series



# AVO Index Time Series



# Future summer acoustic-trawl surveys

Summer 2023 -- Gulf of Alaska survey

Summer 2024 – Bering Sea survey

(annual AVO index to EBS stock assessment)

A white research vessel with "NOAA" on its side is docked at a concrete pier. The vessel has various antennas and equipment on its deck. In the background, a vibrant rainbow arches across a dark, overcast sky. The water is dark and choppy. A yellow warning sign is visible on the pier in the foreground.

Questions?

Thanks to the Dyson crew,  
MACE program, and AIS observers