



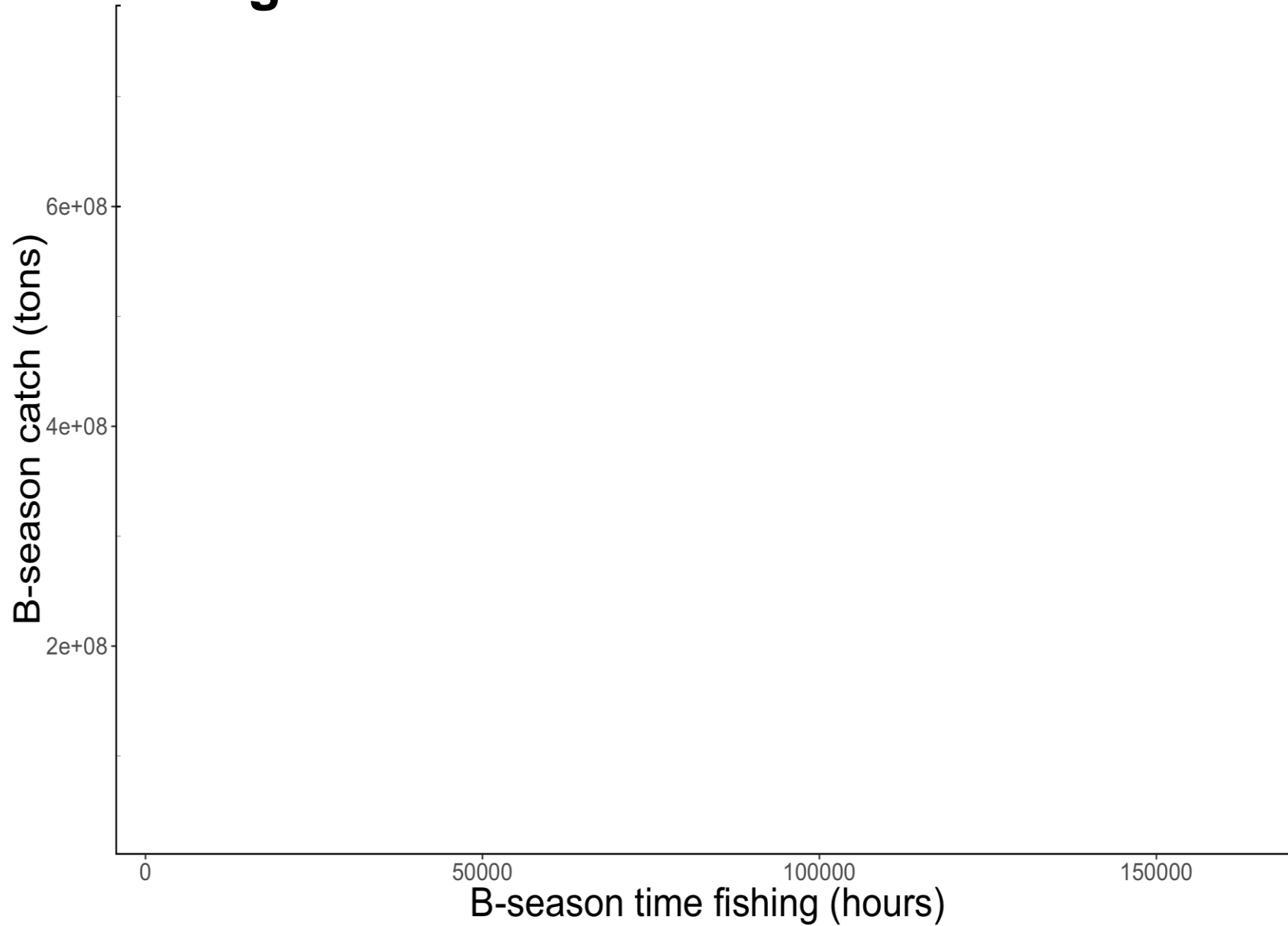
**NOAA**  
**FISHERIES**

# Eastern Bering Sea pollock Update

Jim Ianelli, Steve Barbeaux, Stan Kotwicki,  
Taina Honkalehto, and Kirstin Holsman  
Alaska Fisheries Science Center  
NMFS/NOAA

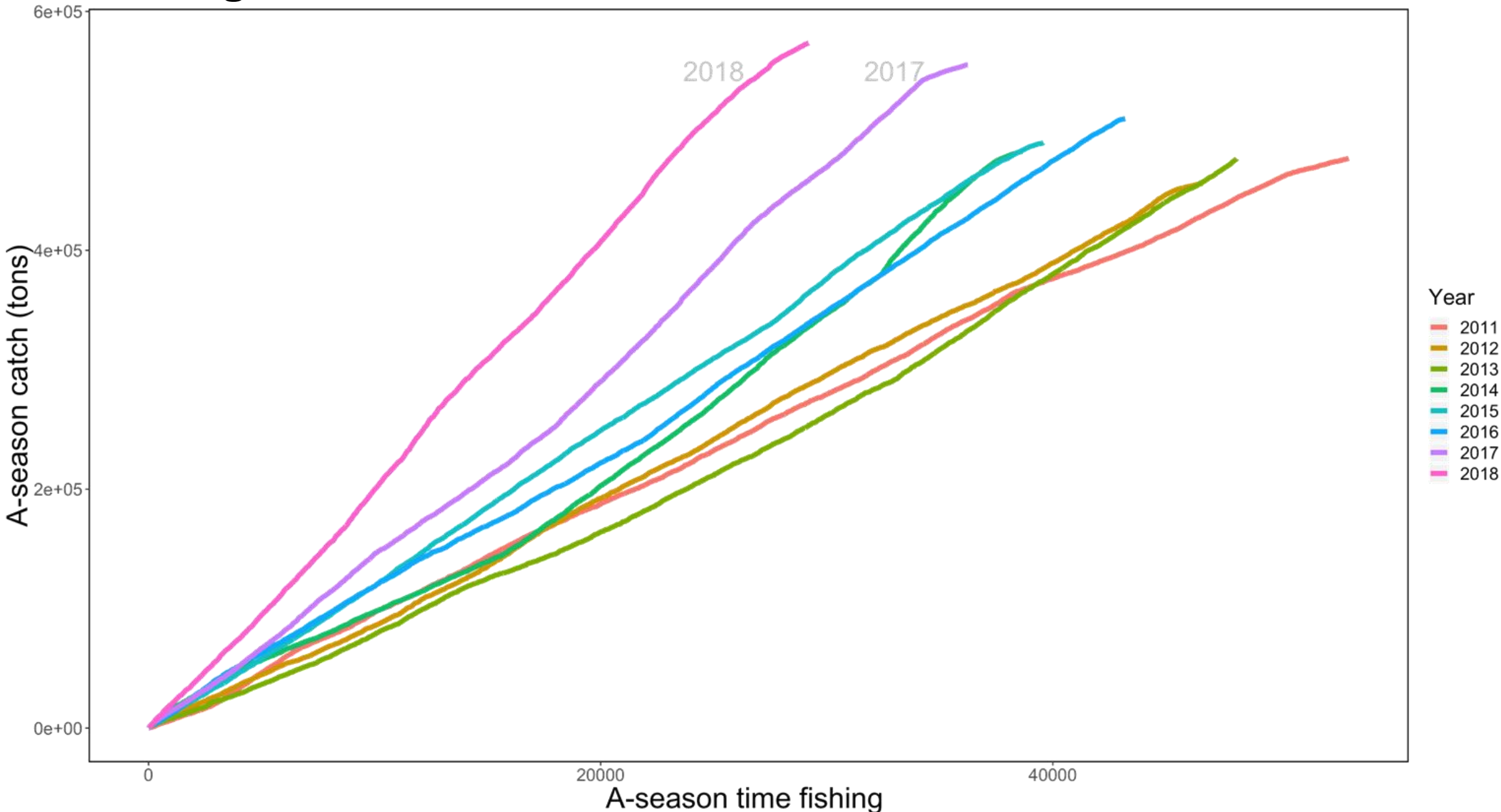
# Fishing conditions

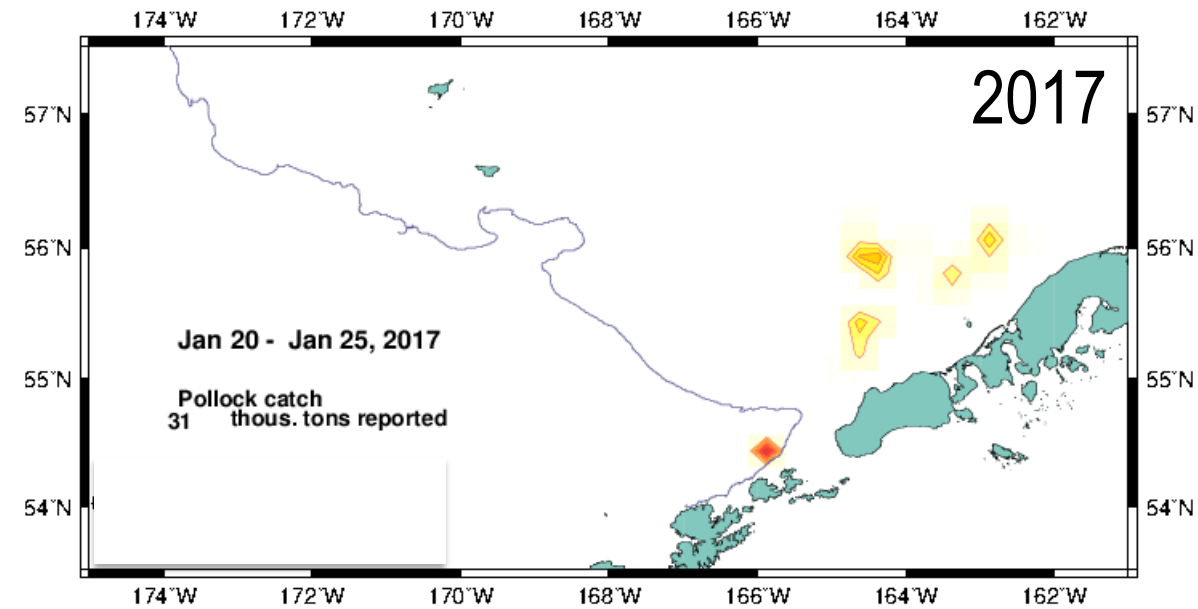
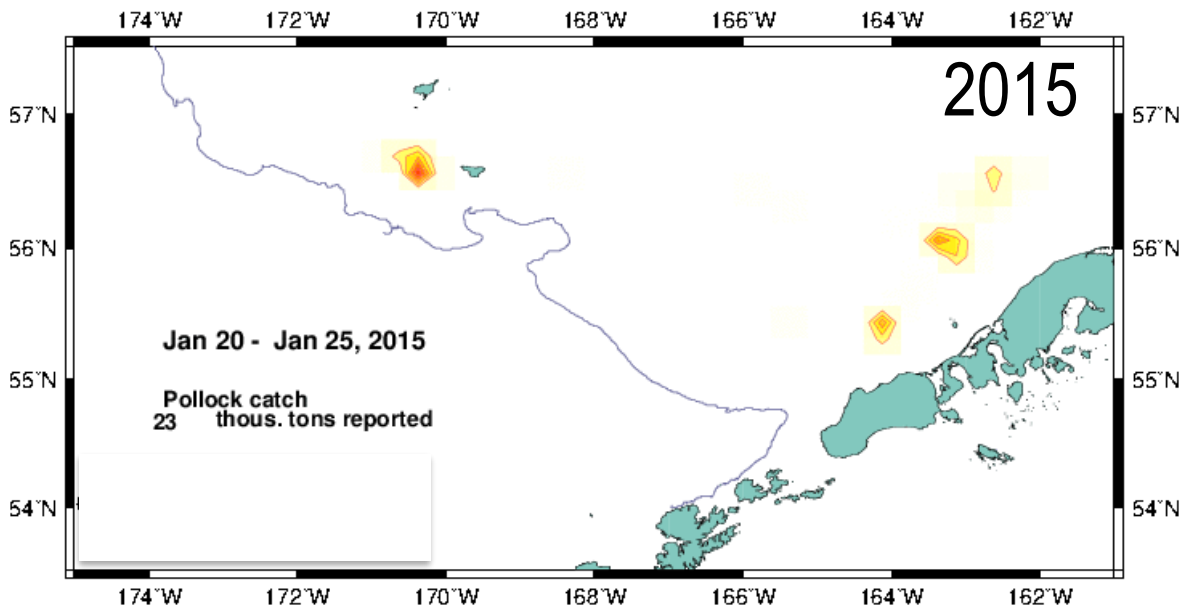
## B-season



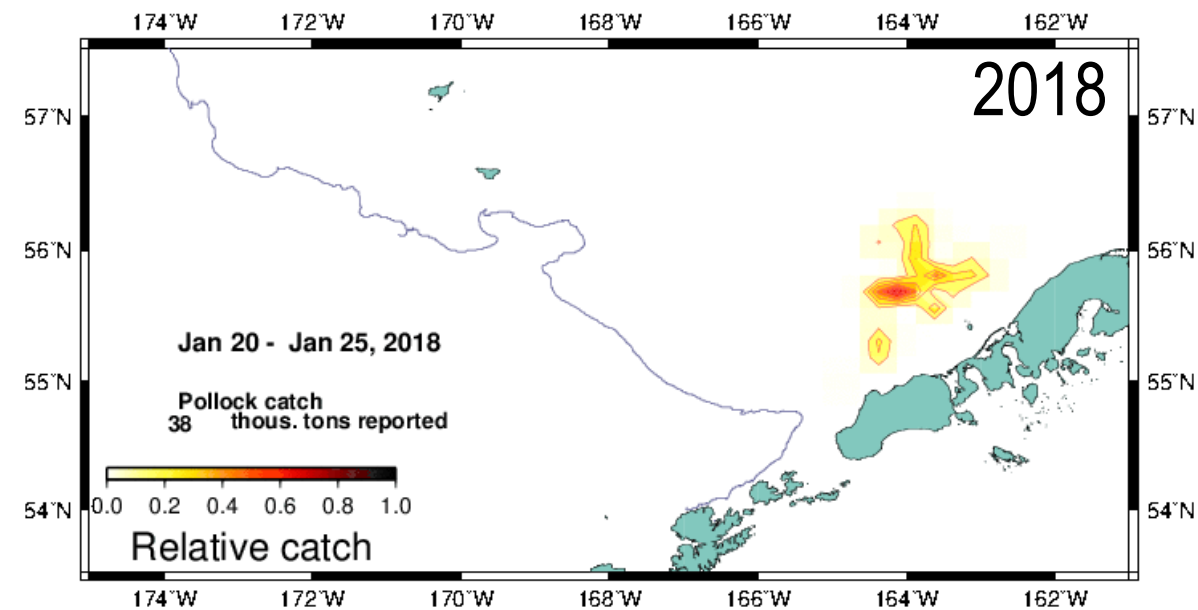
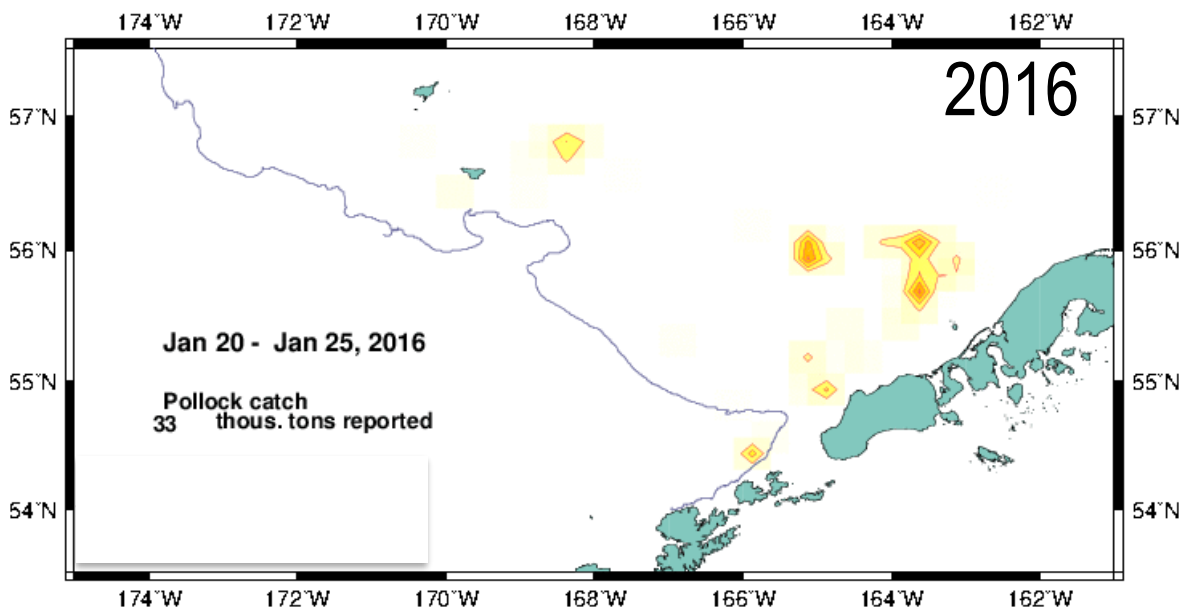
# Fishing conditions

# A-season



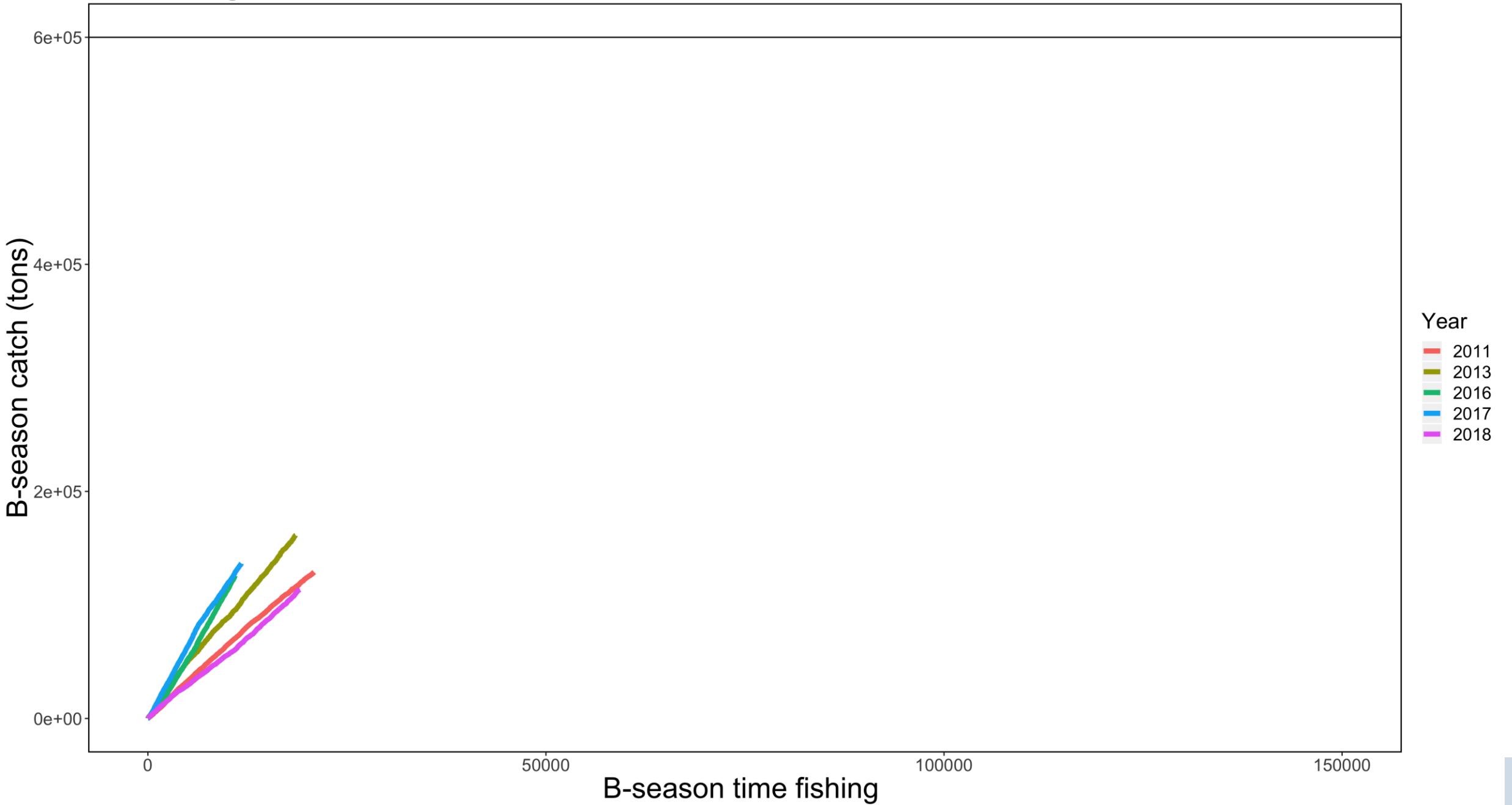


## A-season fishing patterns



# Fishing conditions

## B-season



# Fishing conditions

# B-season

B-season catch (tons)

6e+05  
4e+05  
2e+05  
0e+00

0

50000

100000

150000

B-season time fishing

Year

- 2011
- 2013
- 2016
- 2017
- 2018

# Fishing conditions

# B-season

B-season catch (tons)

Year

- 2011
- 2013
- 2016
- 2017
- 2018

6e+05

4e+05

2e+05

0e+00

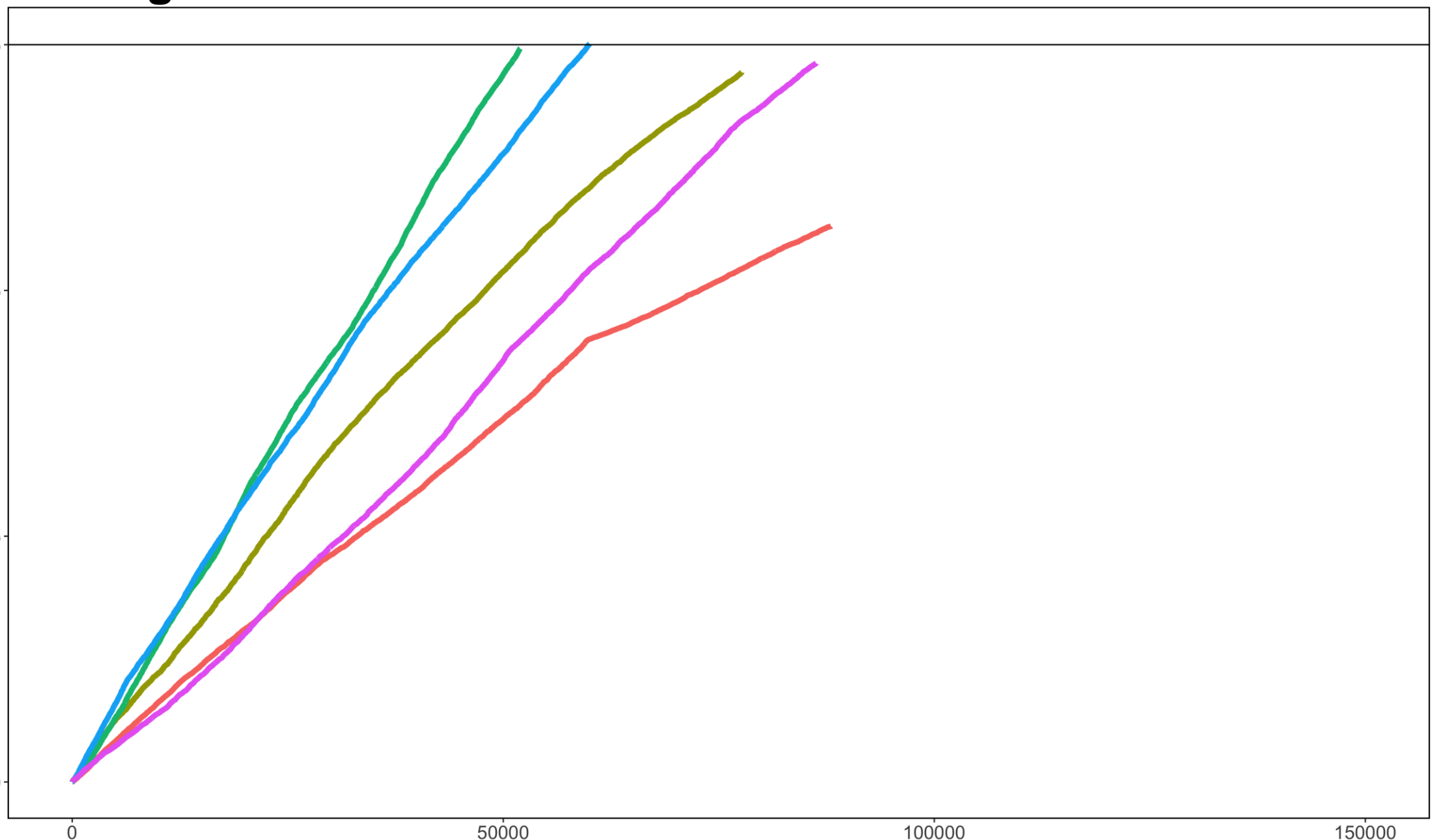
0

50000

100000

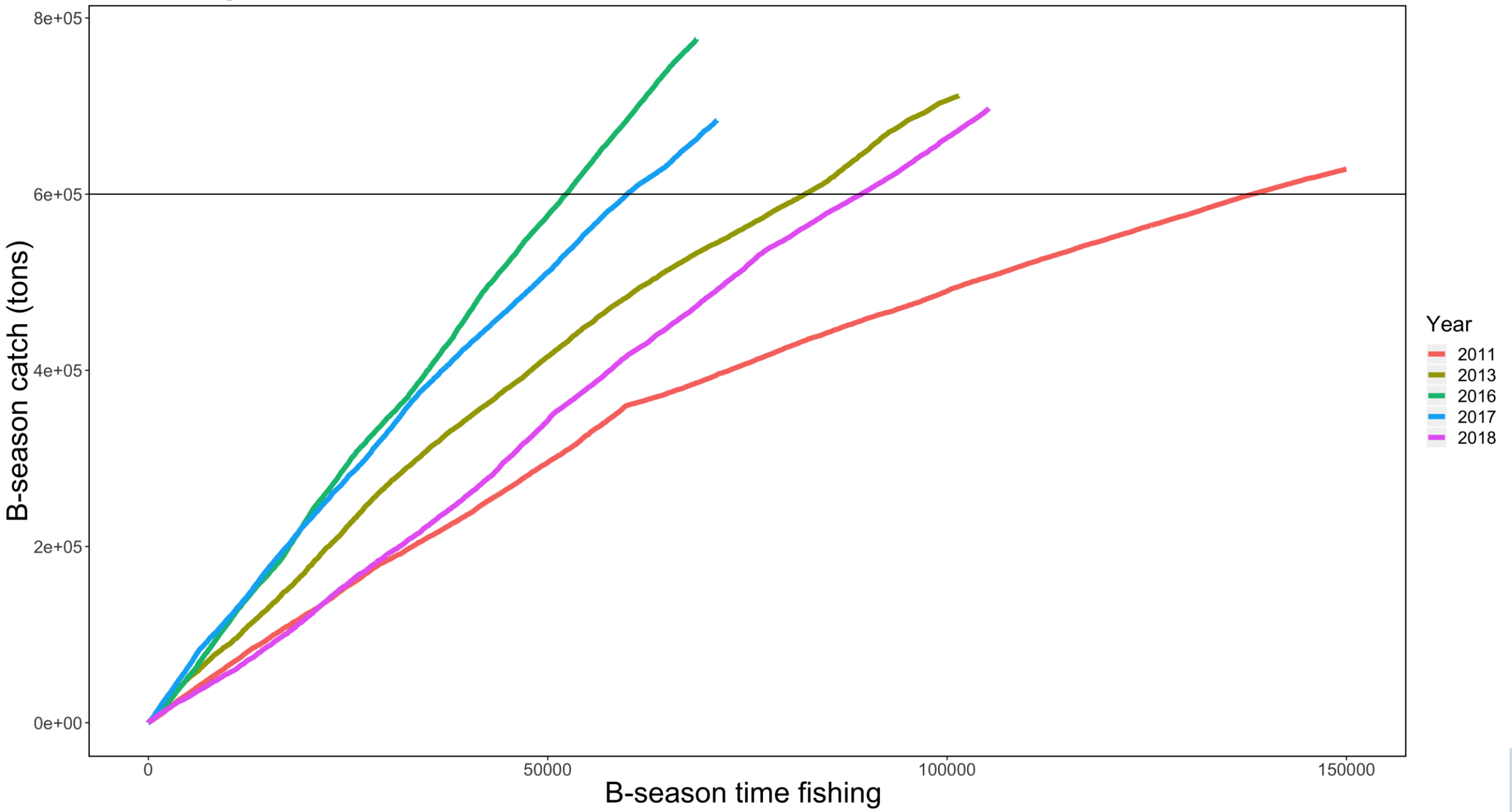
150000

B-season time fishing



# Fishing conditions

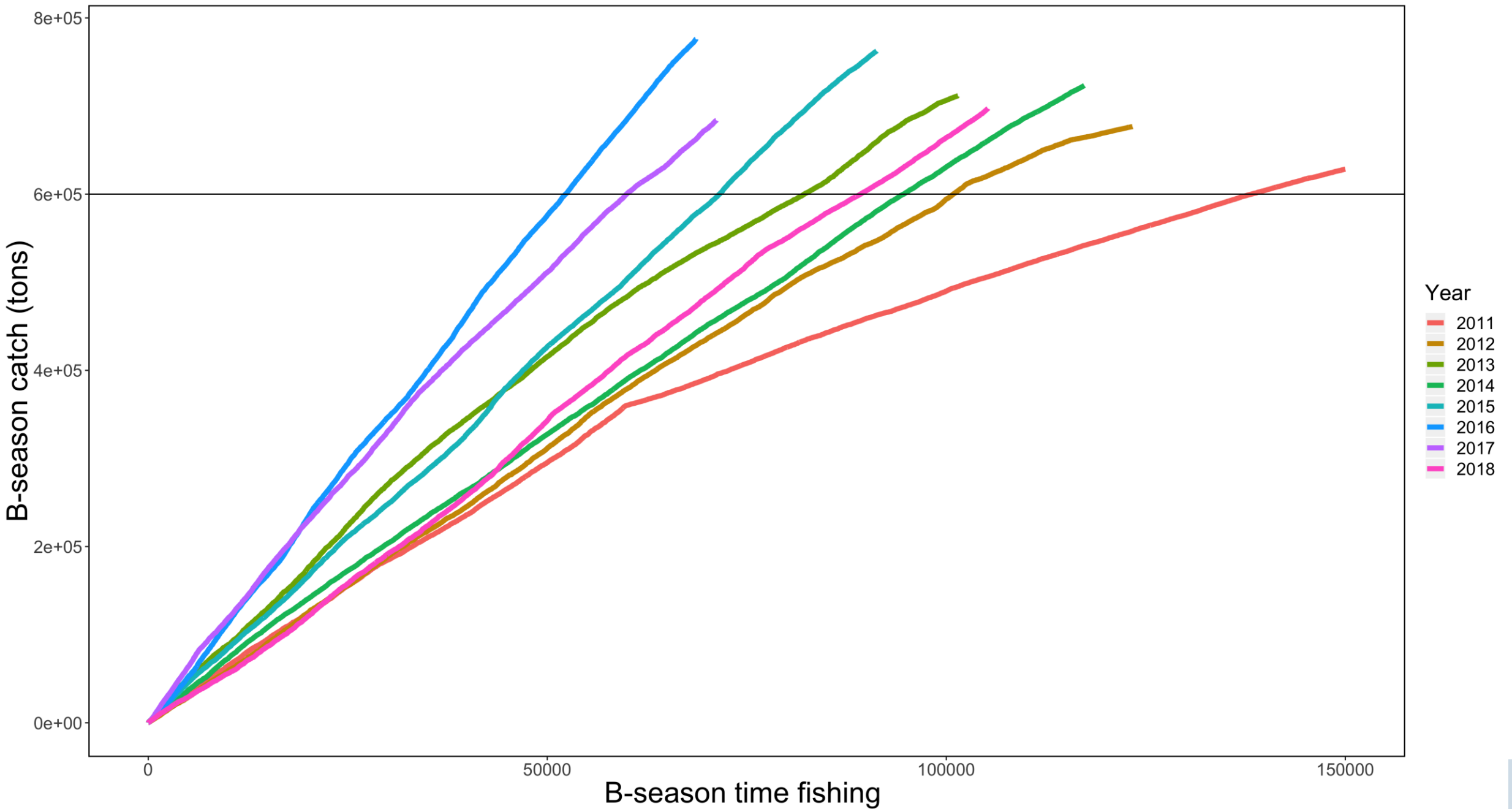
# B-season

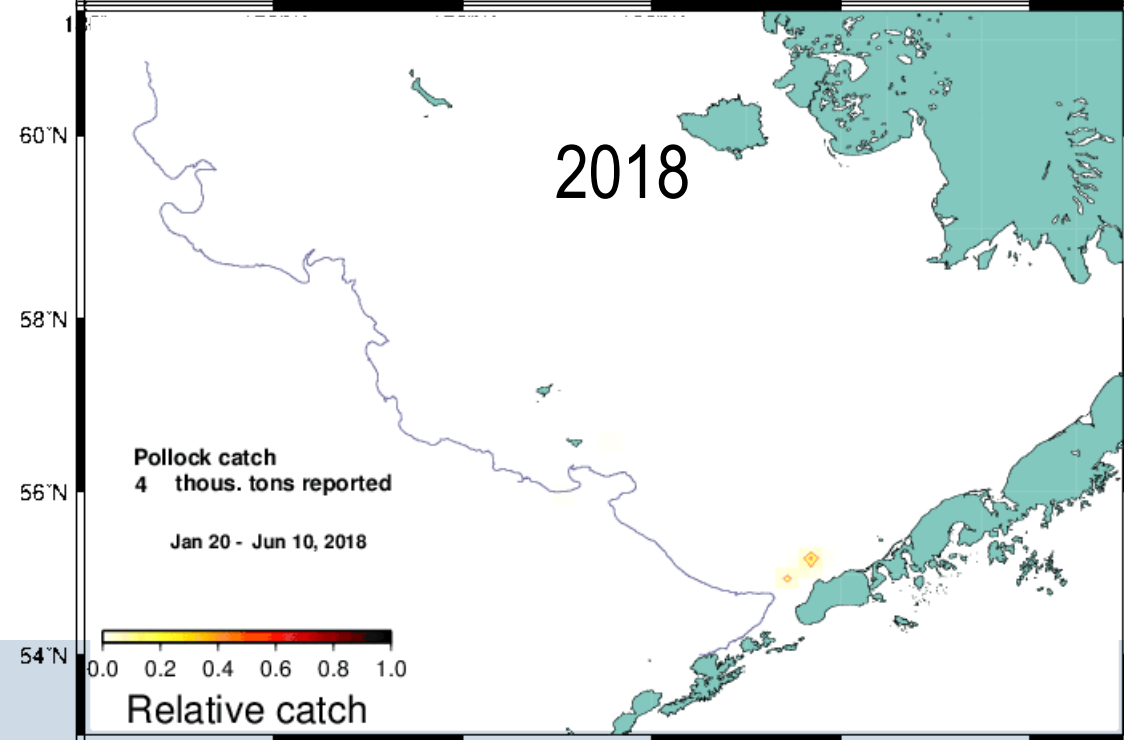
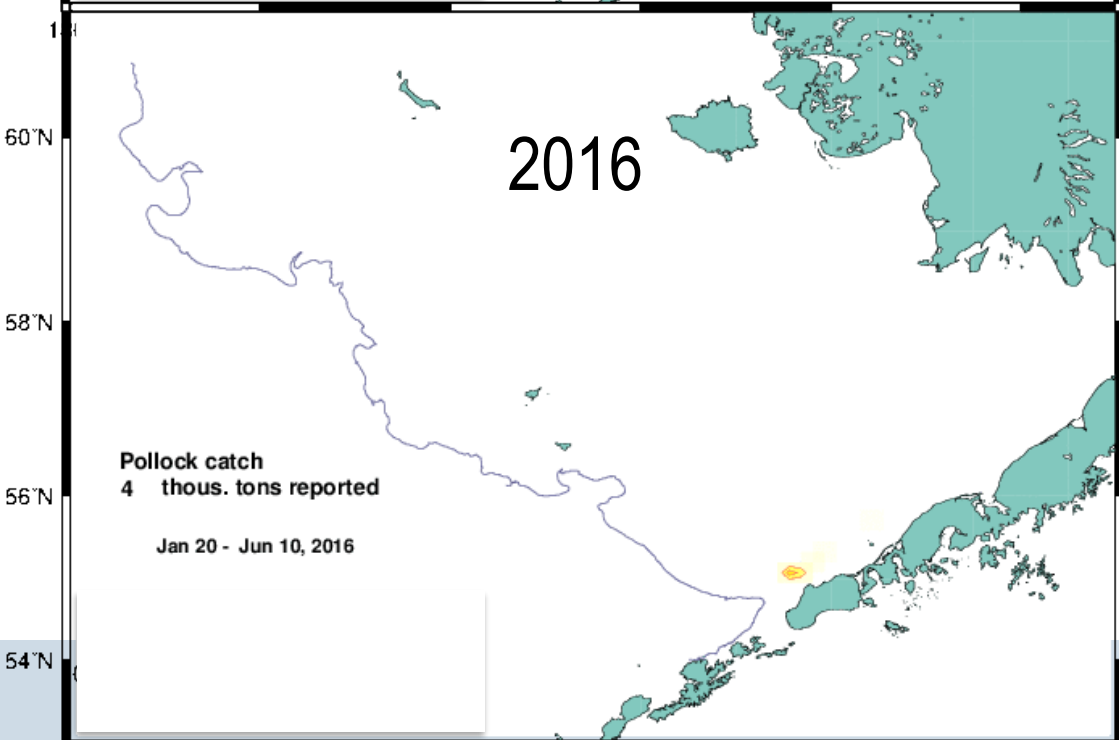
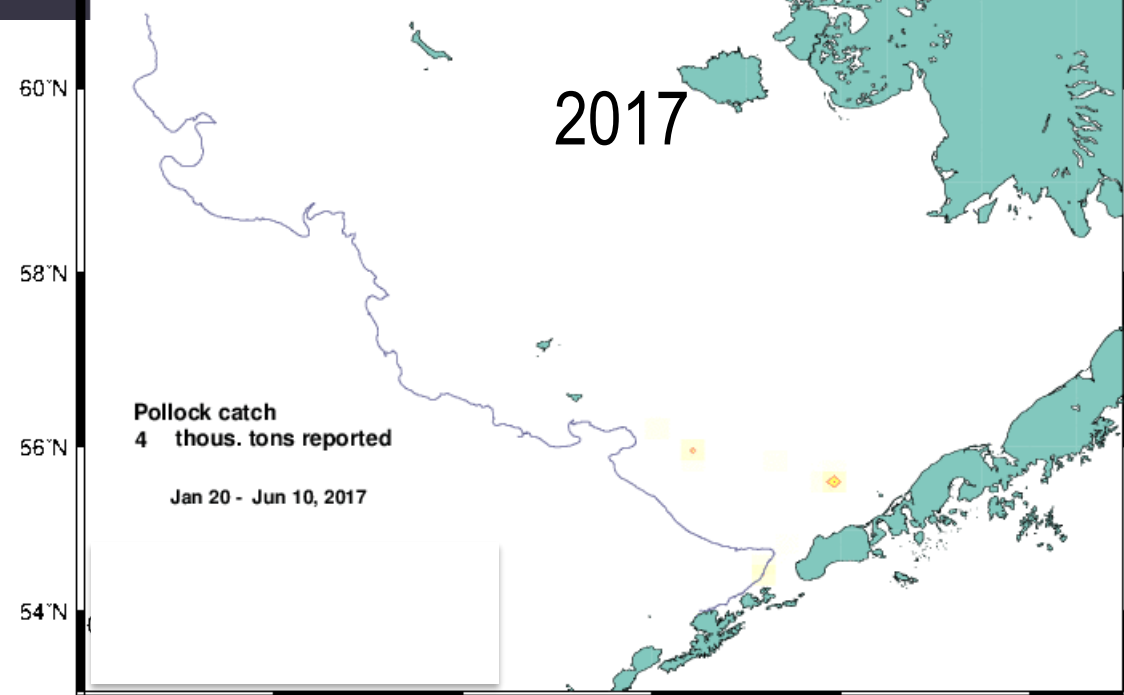
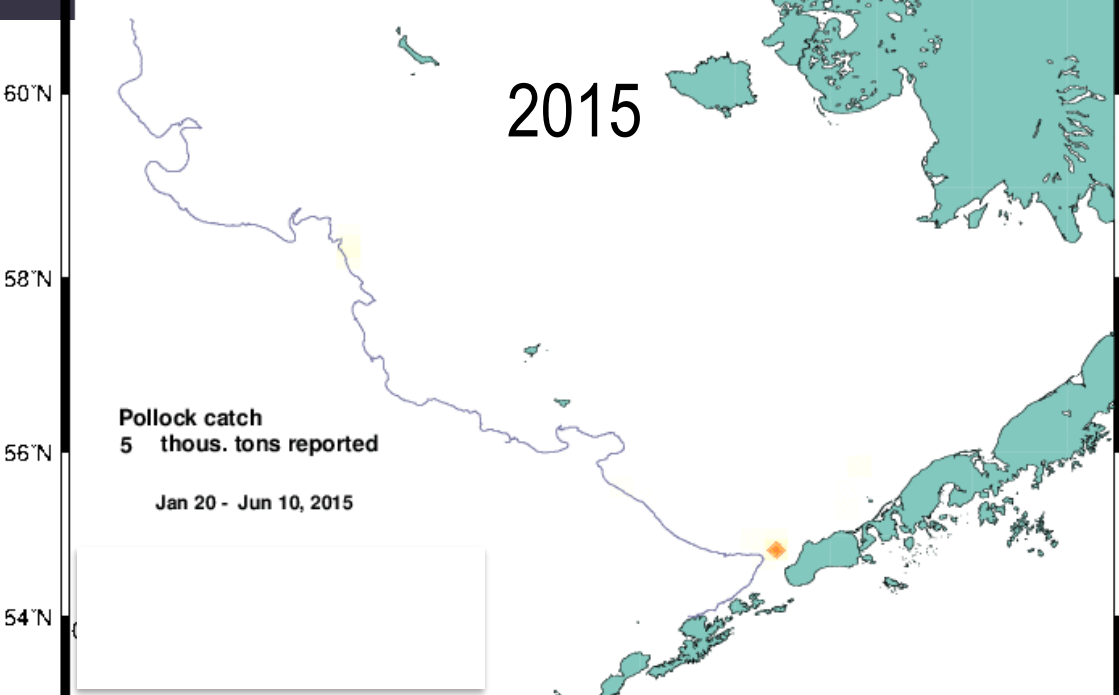




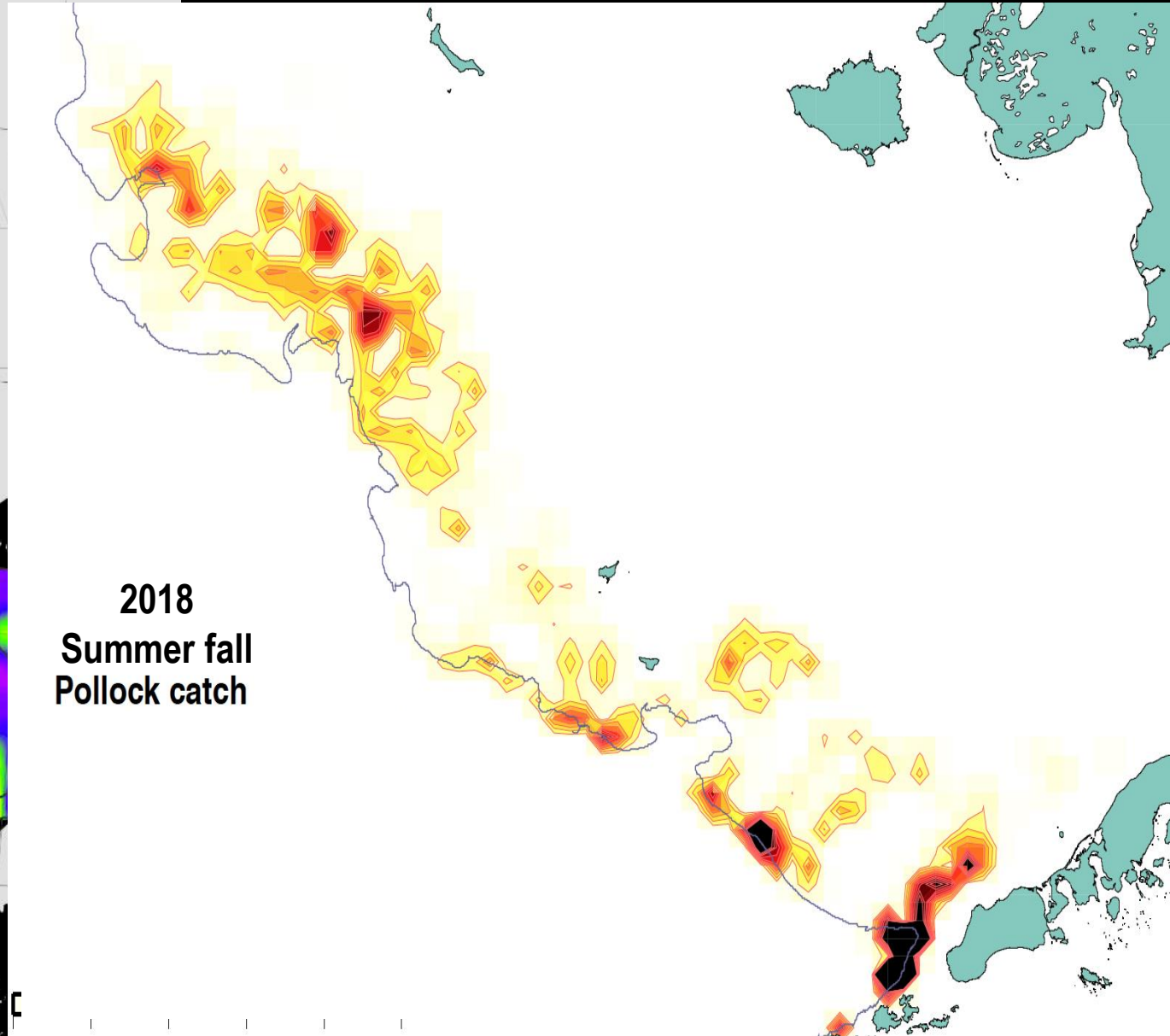
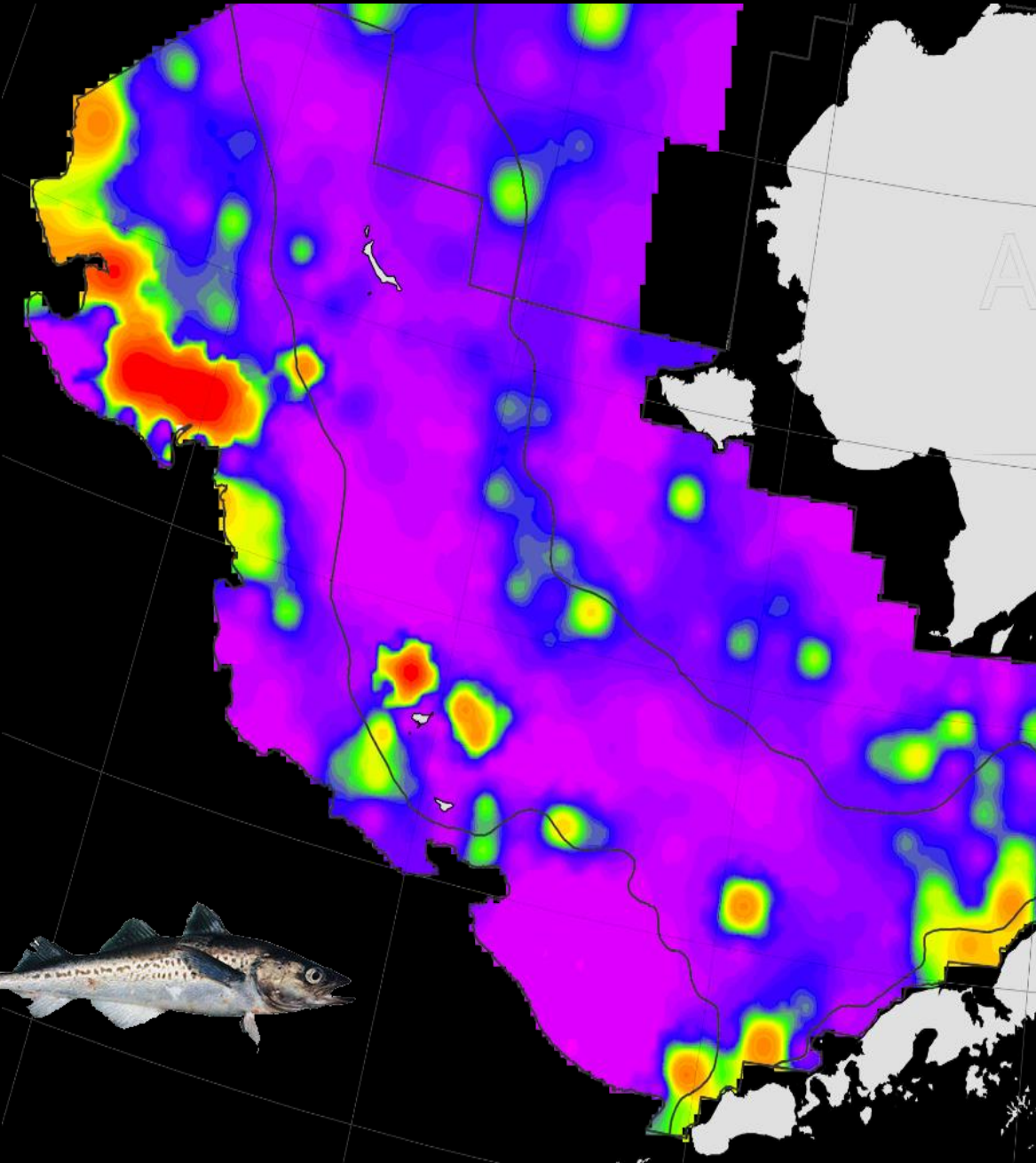
# Fishing conditions

# B-season



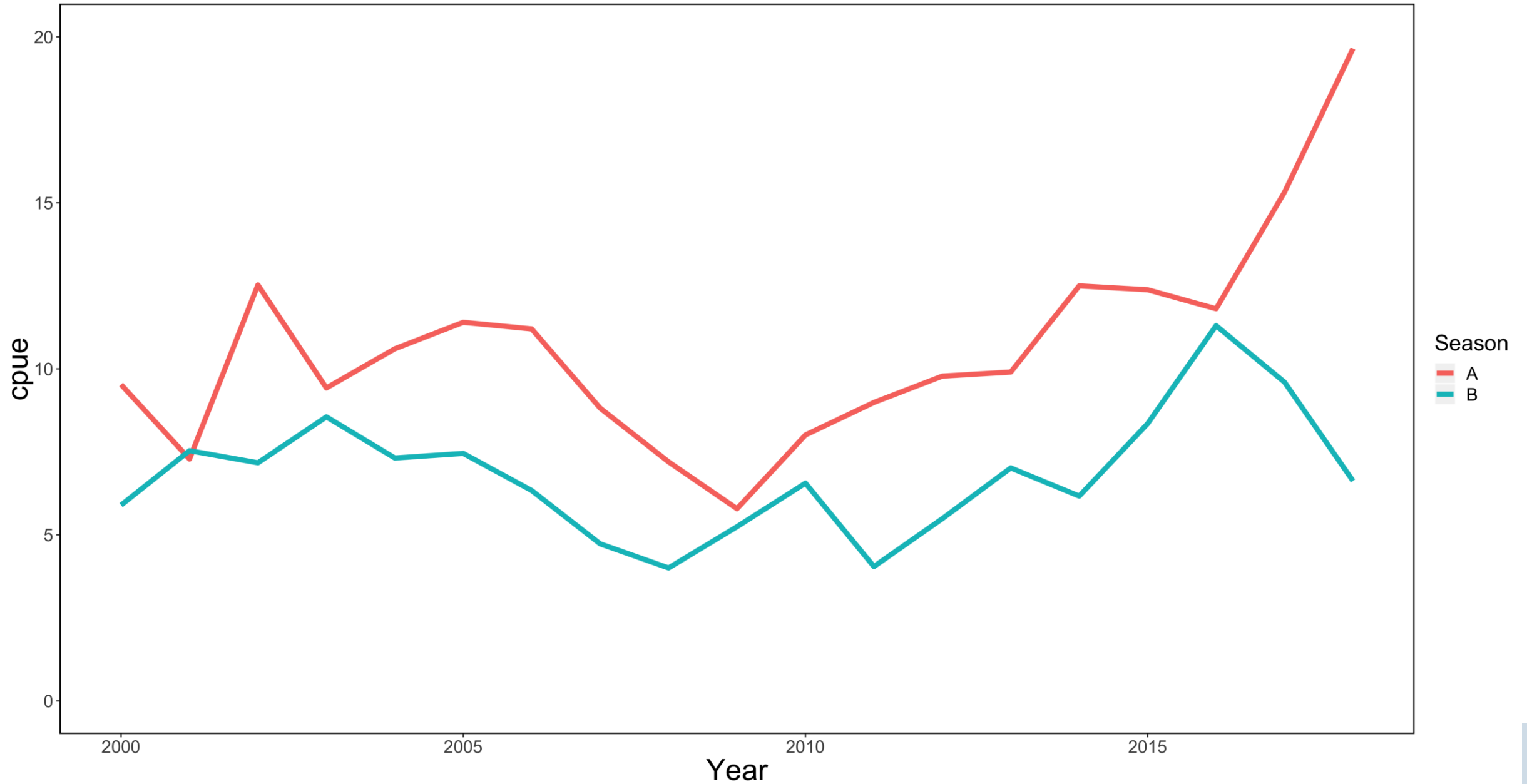


# Pollock distribution, survey vs fishery



# Fishing conditions

A-Season CPUE



# New data for 2018 assessment

Bottom trawl (standard)

- Plus NBS?

2 years of AVO

1 year of Acoustic trawl

- Compromised—lag in middle part of survey, missing important area

Options:

1. Re-district index to identical coverage?
2. Calibrate w/ survey
3. Ignore missing area and inflate variance for 2018

Fishery age and weight compositions (2017)

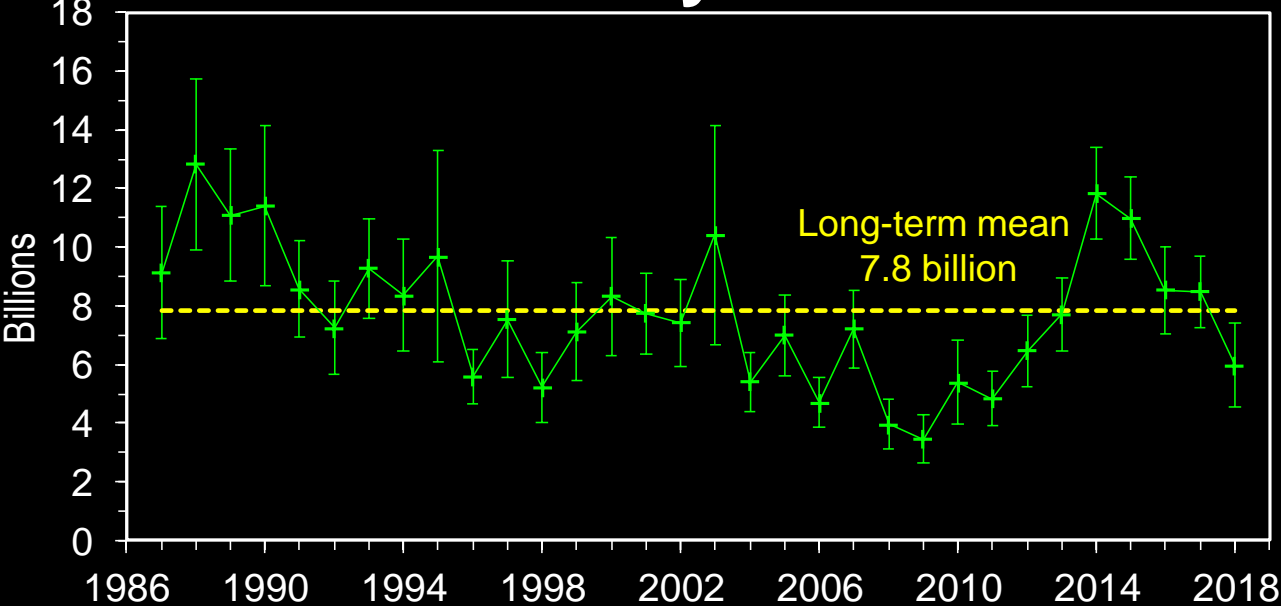
To include projections for 2018+



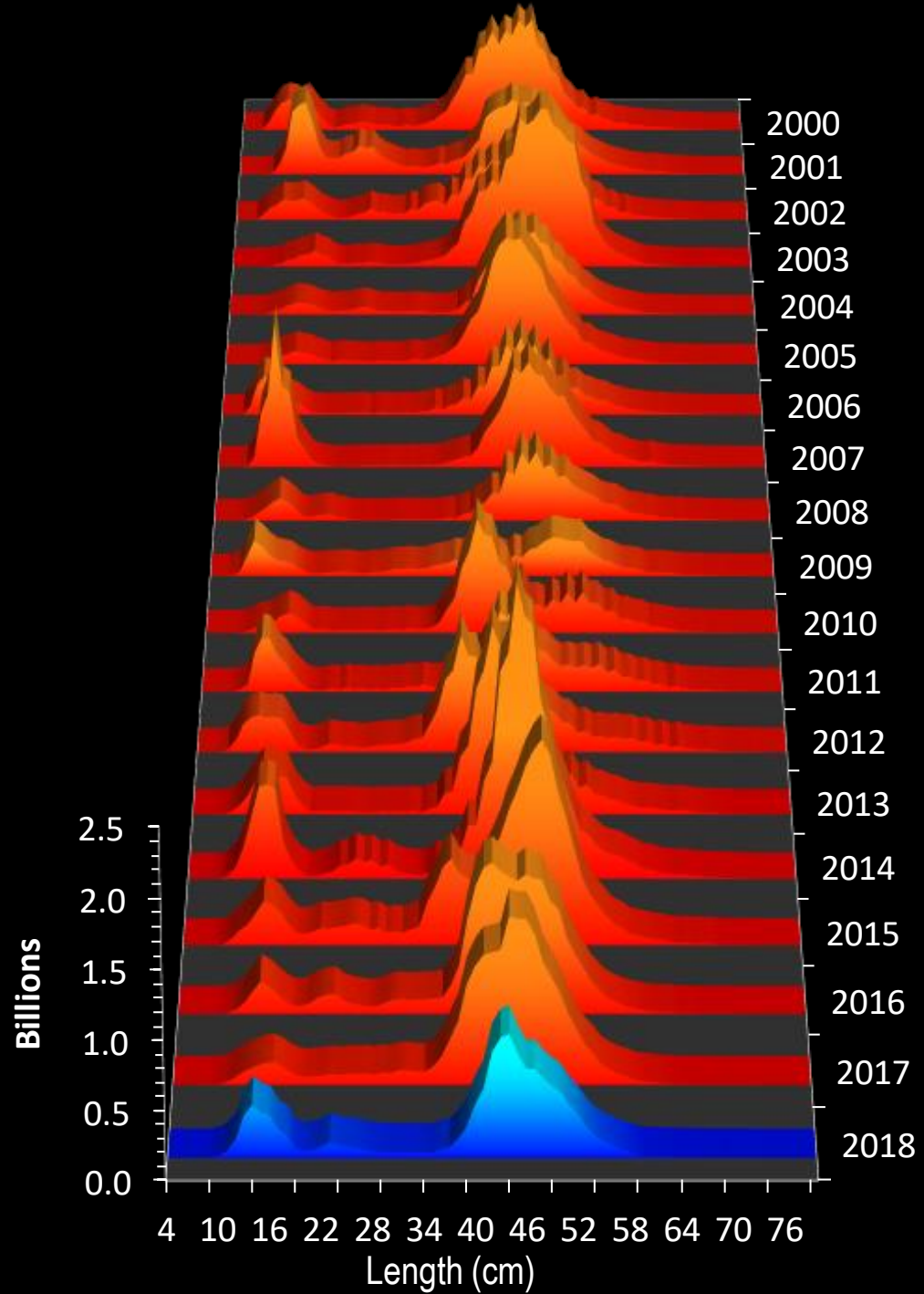


# Pollock

## Bottom trawl survey



6.0 billion  
**-30%** from 2017 (8.5 billion)



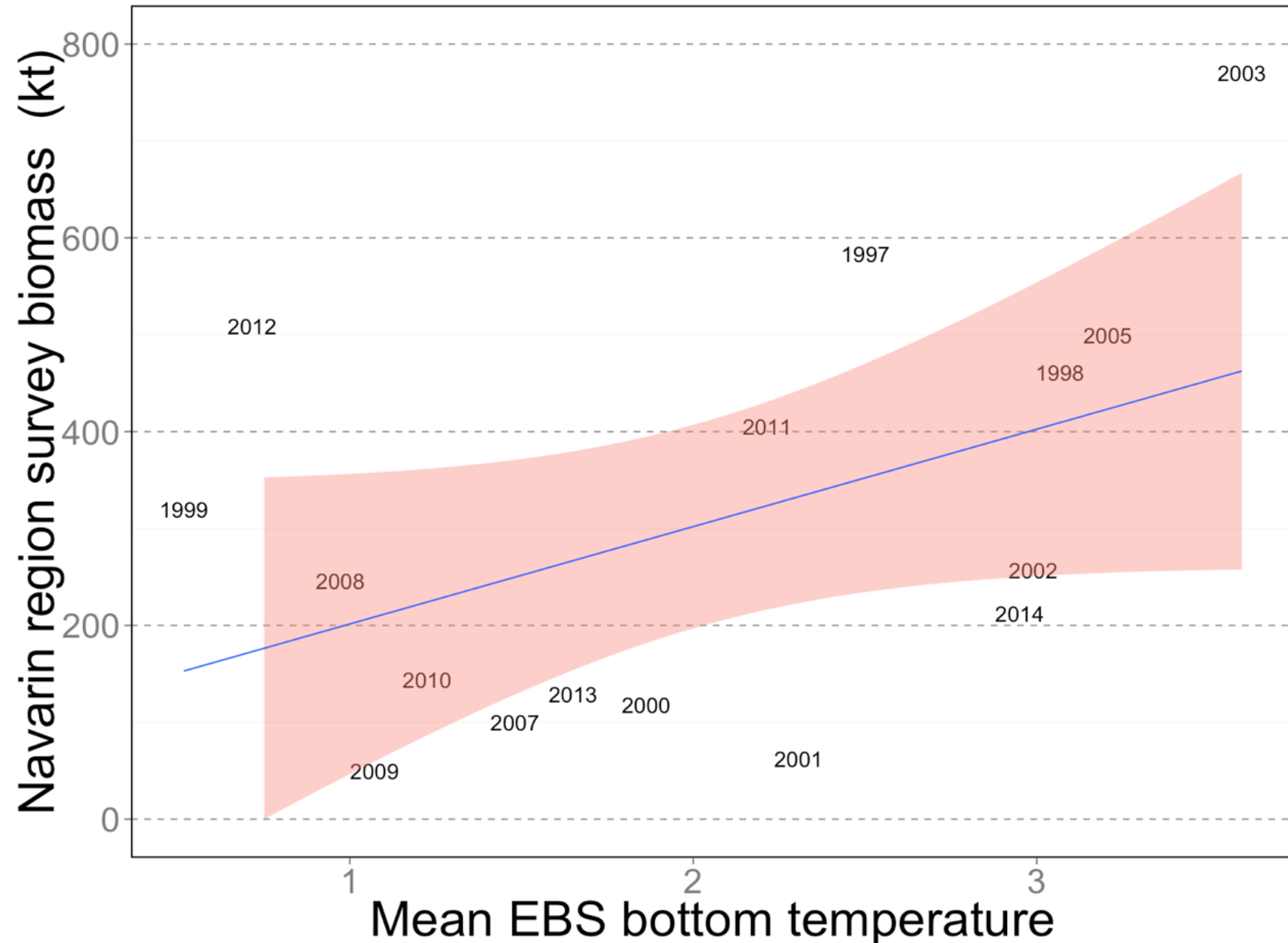
## Assessment plans

- Configuring NBS component
  - Presently modeled as random effect w/o linkage to observations
  - Will explore potential explicit movement



# Pollock movement?

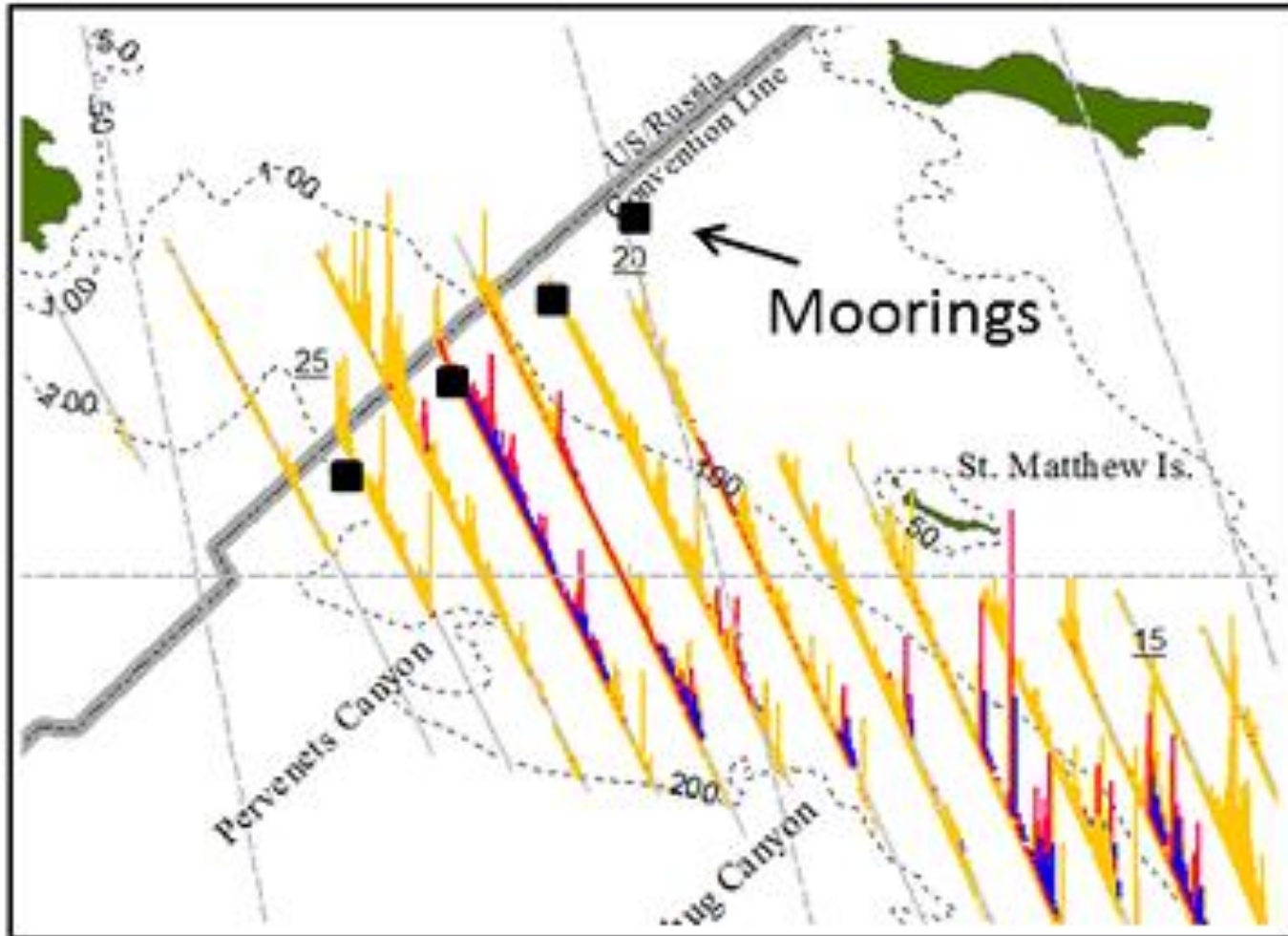
From 2015 EBS pollock assessment

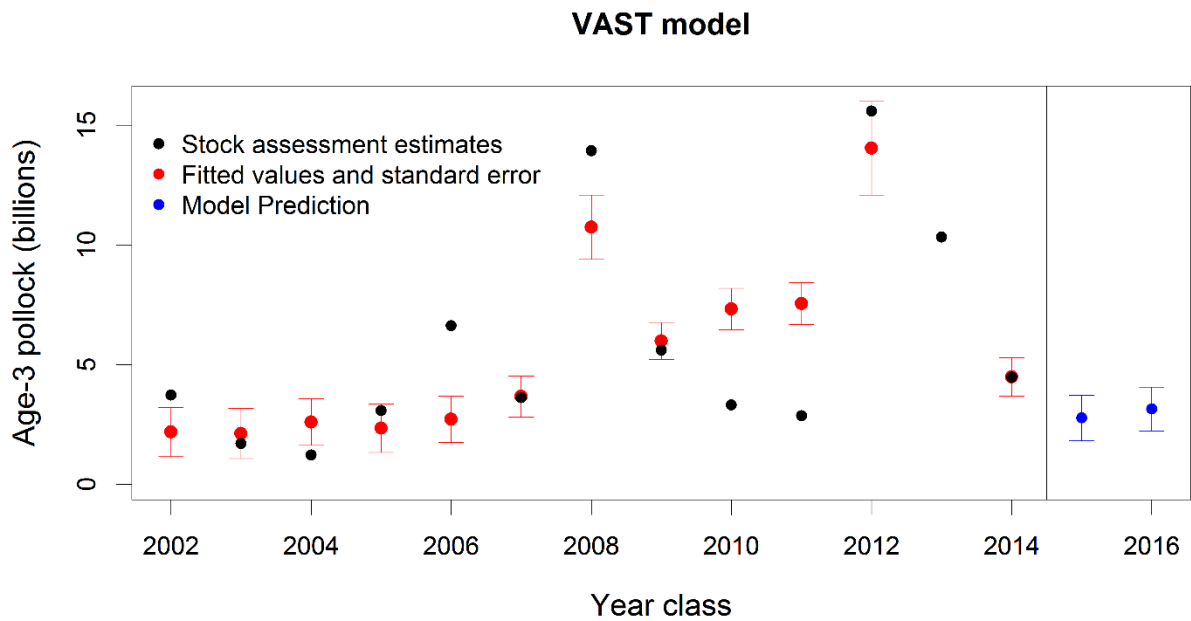




# Monitoring movements of Bering Sea pollock

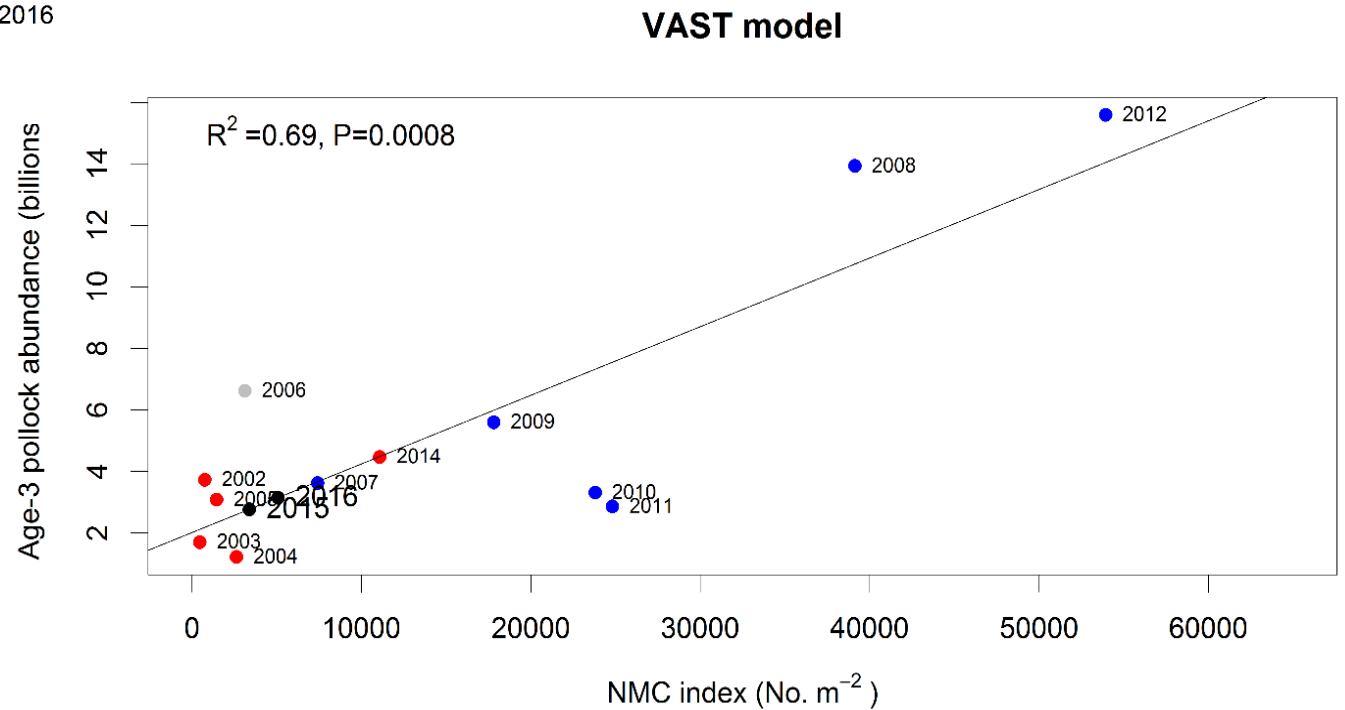
- ✓ 12 month deployments
  - summer 2019 – 2020
  - summer 2021 – 2022
- ✓ Also physical oceanographic data collections





Large copepod abundance (observed and modeled) as an indicator of pollock recruitment to age-3 in the southeastern Bering Sea

**Contributed by:** Lisa Eisner, Ellen Yasumiishi



# Plans for multi-species assessment

- Update data

