



**NOAA
FISHERIES**

Alaska Fisheries
Science Center

Joint Groundfish Plan Team meeting report

Jim Ianelli and Chris Lunsford (GOA co-chairs)
Sara Cleaver (GOA coordinator)

Grant Thompson and Steve Barbeaux (BSAI co-chairs)
Diana Stram (BSAI coordinator)

November 2021

Minutes of the Joint Meeting of the Plan Teams for the Groundfish Fisheries of the Gulf of Alaska (GOA) and Bering Sea Aleutian Islands (BSAI)

North Pacific Fishery Management Council
1007 West Third, Suite 400
Anchorage, Alaska 99501
November 15, 2021

BSAI Team

Grant Thompson	AFSC REFM (co-chair)
Steve Barbeaux	AFSC REFM (co-chair)
Diana Stram	NPFMC (coordinator)
Mary Furuness	NMFS AKRO
Alan Haynie	AFSC REFM
Allan Hicks	IPHC
Lisa Hillier	WDFW
Kirstin Holsman	AFSC REFM
Phil Joy	ADF&G
Andy Kingham	AFSC FMA
Kalei Shotwell	AFSC REFM
Cindy Tribuzio	AFSC ABL

GOA Team

Jim Ianelli	AFSC REFM (co-chair)
Chris Lunsford	AFSC ABL (co-chair)
Sara Cleaver	NPFMC (coordinator)
Obren Davis	NMFS AKRO
Craig Faunce	AFSC FMA
Lisa Hillier	WDFW
Pete Hulson	AFSC ABL
Sandra Lowe	AFSC REFM
Nat Nichols	ADF&G
Jan Rumble	ADF&G
Paul Spencer	AFSC REFM
Marysia Szymkowiak	AFSC REFM
Kresimir Williams	AFSC RACE
Andrew Olson	ADF&G

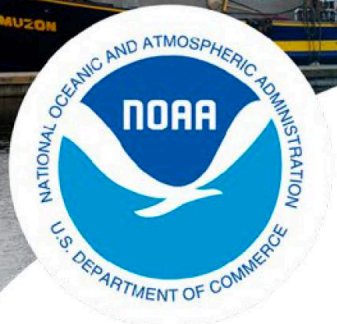
Joint Plan Team Meeting overview and agenda

Overview

- Date: November 15th
- Place: Online
- Participation: 24 Team members present (4 vacancies remain)
- Numerous AFSC and AKRO staff and members of the public

Agenda

- EBS/NBS Survey
- Essential Fish Habitat
- Comments on Assessments in General
- Sablefish
- Economic SAFE



**NOAA
FISHERIES**

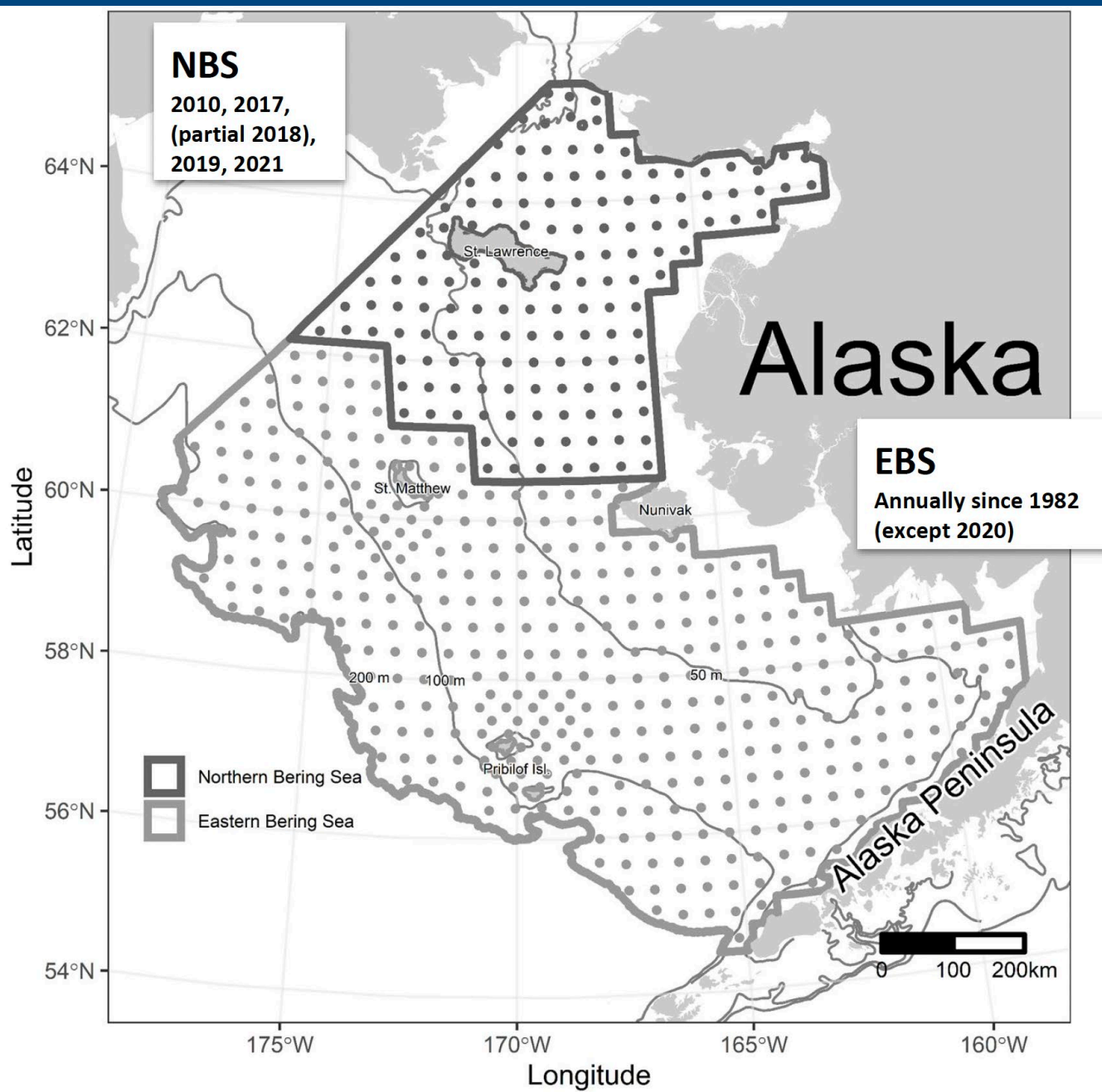
Results from the Eastern & Northern Bering Sea Bottom Trawl Survey

May 31 to August 16, 2021

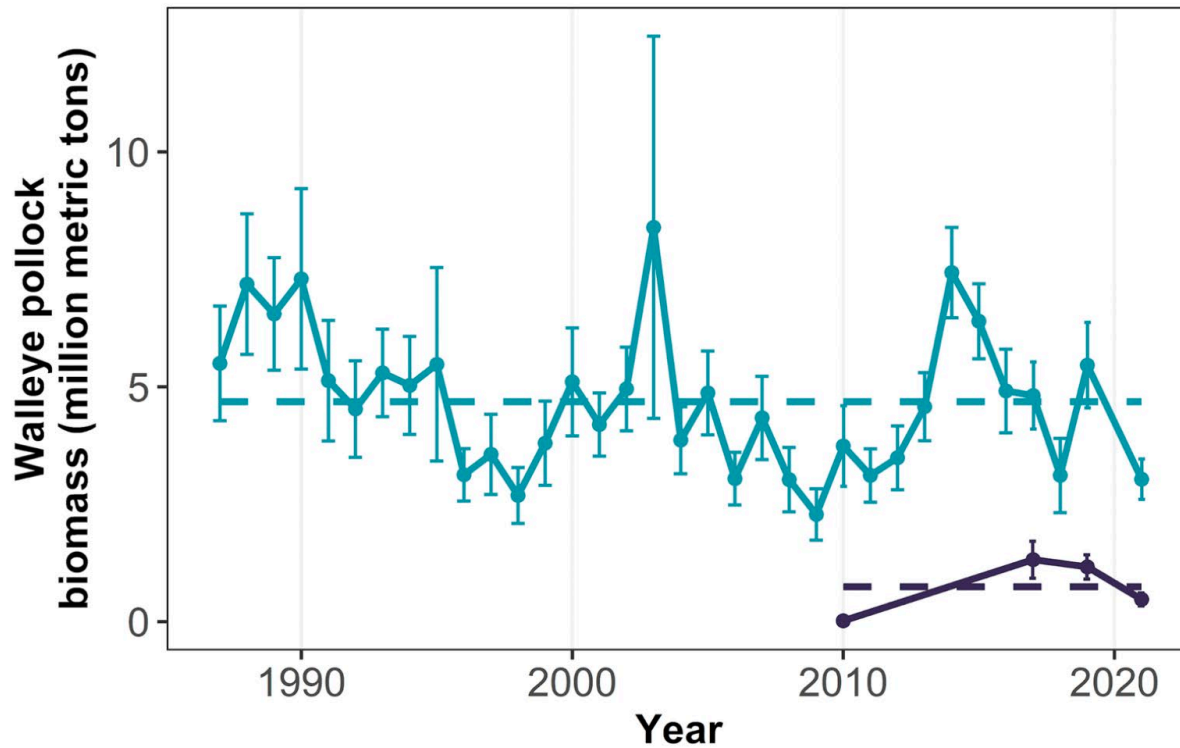
Resource Assessment & Conservation Engineering Division
Groundfish Assessment Program

November 15, 2021





Walleye Pollock Biomass



EBS Biomass

3.0M mt **-44.4%**
from 2019

(5.5M mt)

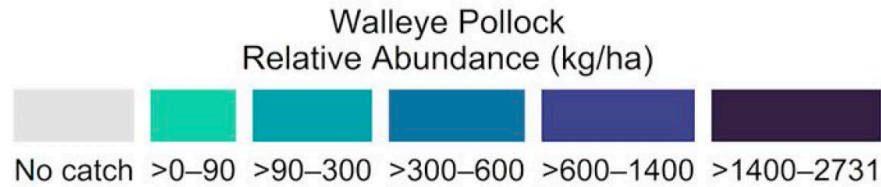
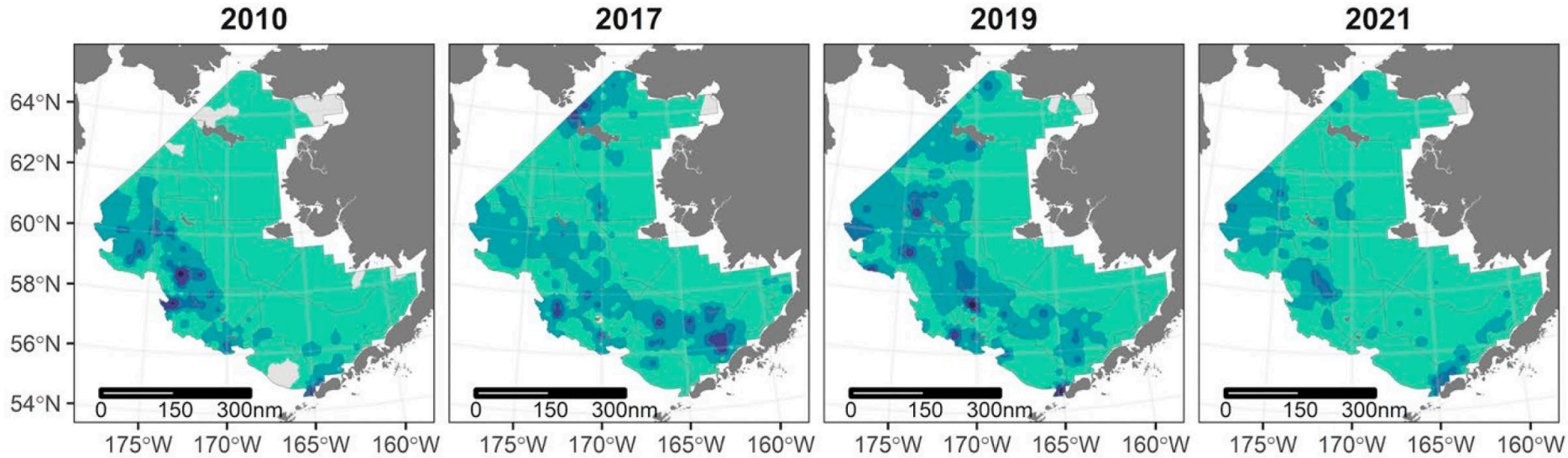
NBS Biomass

0.5M mt **-59.3%**
from 2019

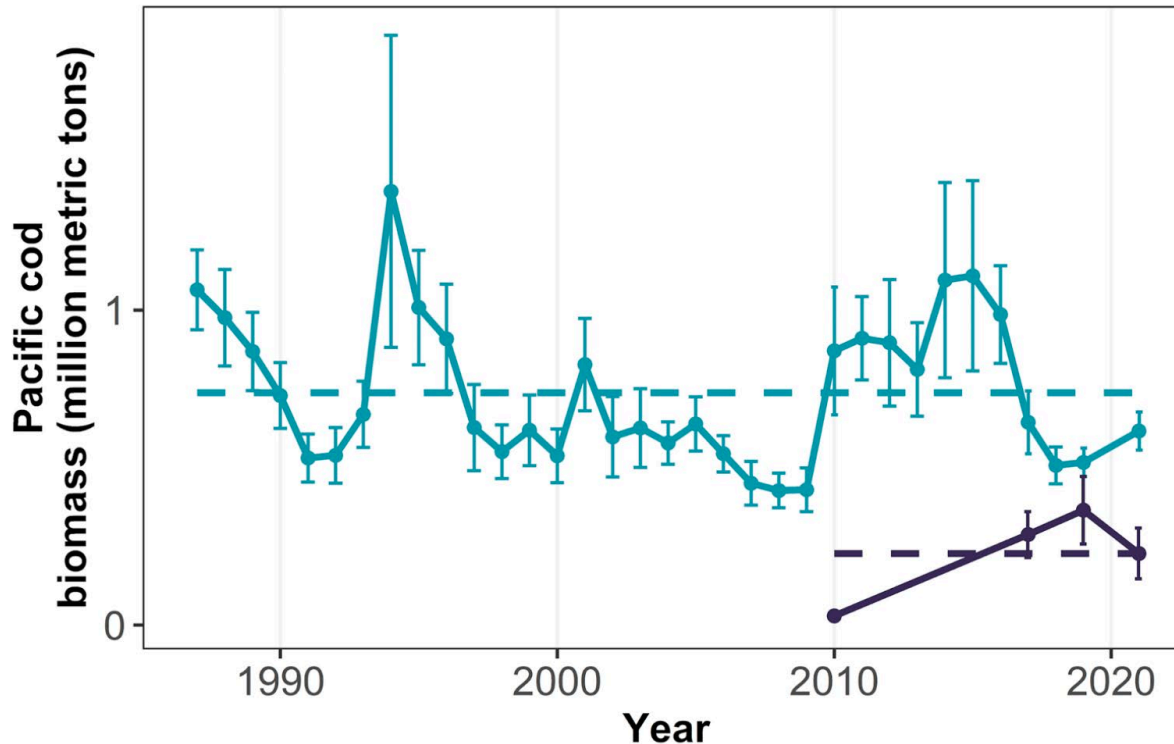
(1.2M mt)



Walleye Pollock Distribution



Pacific Cod Biomass



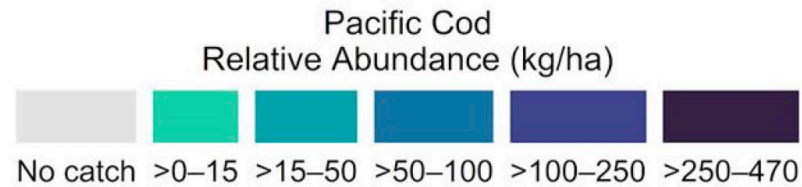
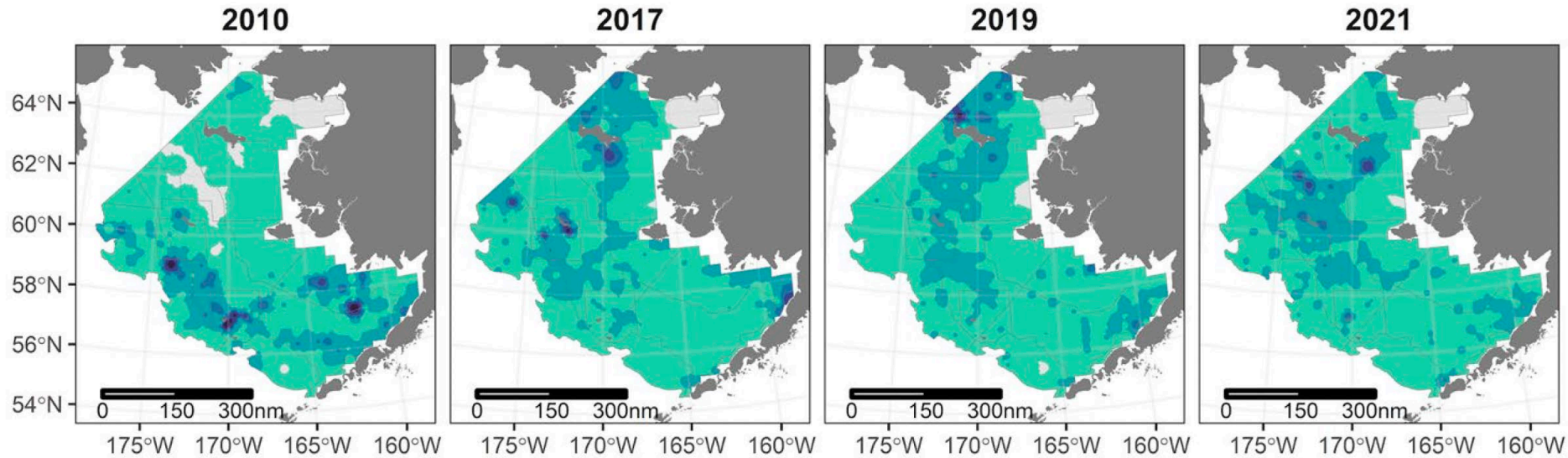
- Southeastern Bering Sea (mean = 0.7Mmt)
- Northern Bering Sea (mean = 0.2Mmt)

EBS Biomass
0.6M mt **19.2%**
from 2019
(0.5M mt)

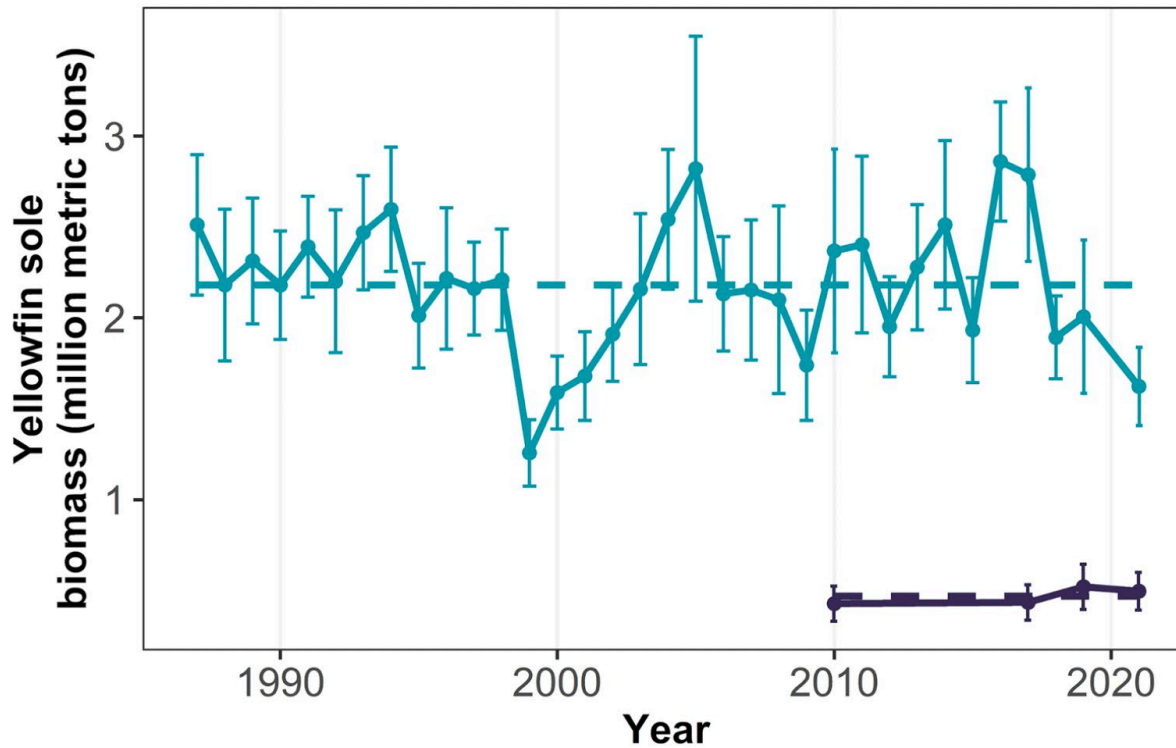
NBS Biomass
0.2M mt **-37.6%**
from 2019
(0.4M mt)



Pacific Cod Distribution



Yellowfin Sole Biomass



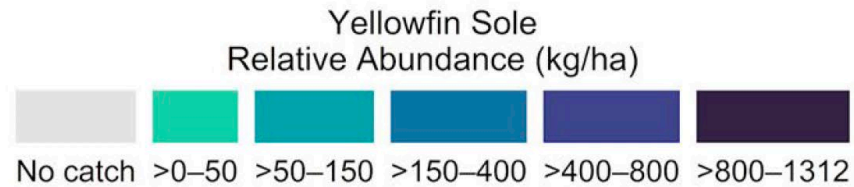
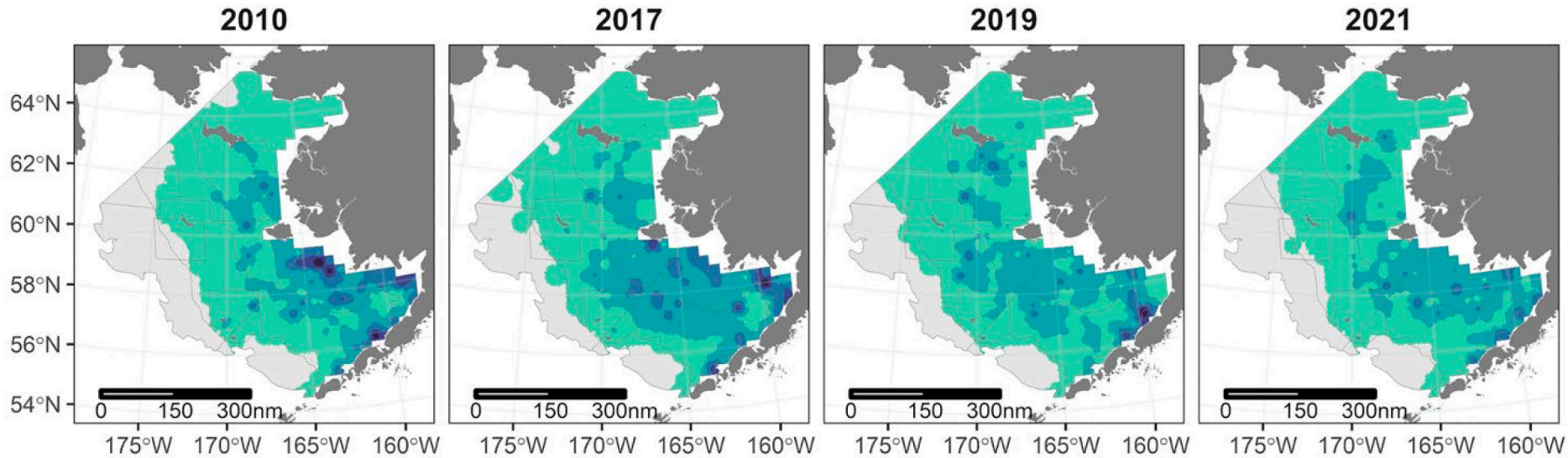
- Southeastern Bering Sea (mean = 2.2Mmt)
- Northern Bering Sea (mean = 0.5Mmt)

EBS Biomass
1.6M mt **-19.1%**
from 2019
(2.0M mt)

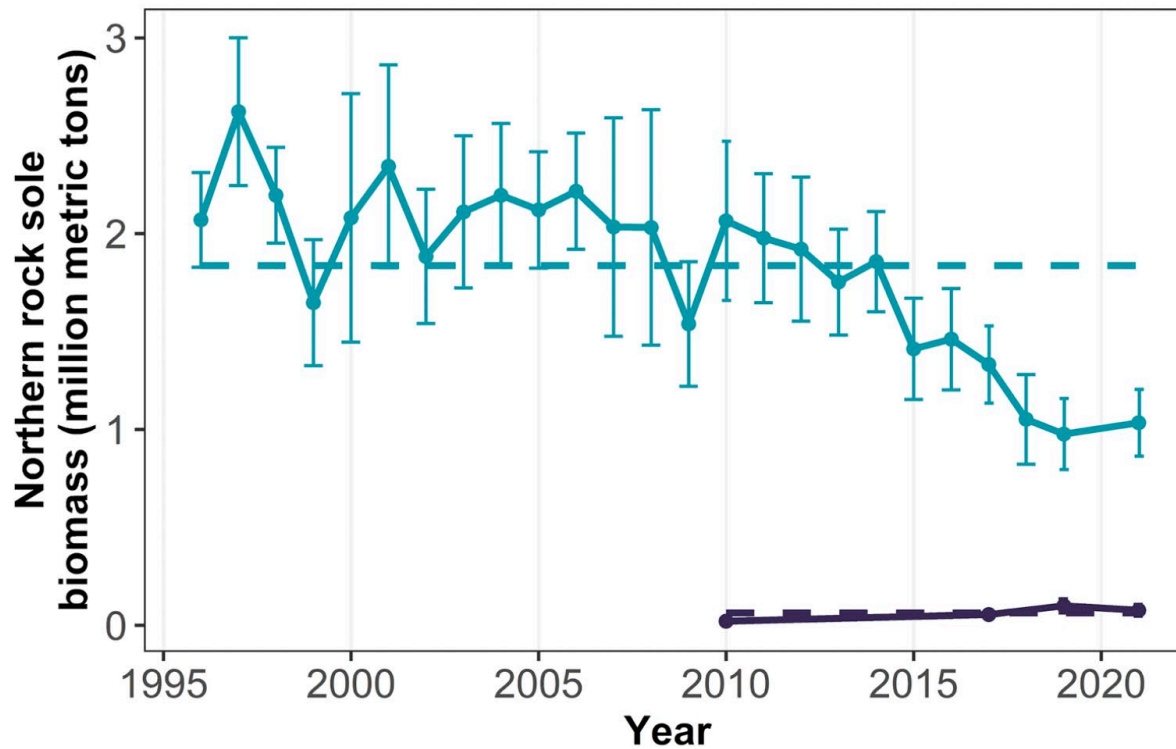
NBS Biomass
0.5M mt **-4.6%**
from 2019
(0.5M mt)



Yellowfin Sole Distribution



Northern Rock Sole Biomass



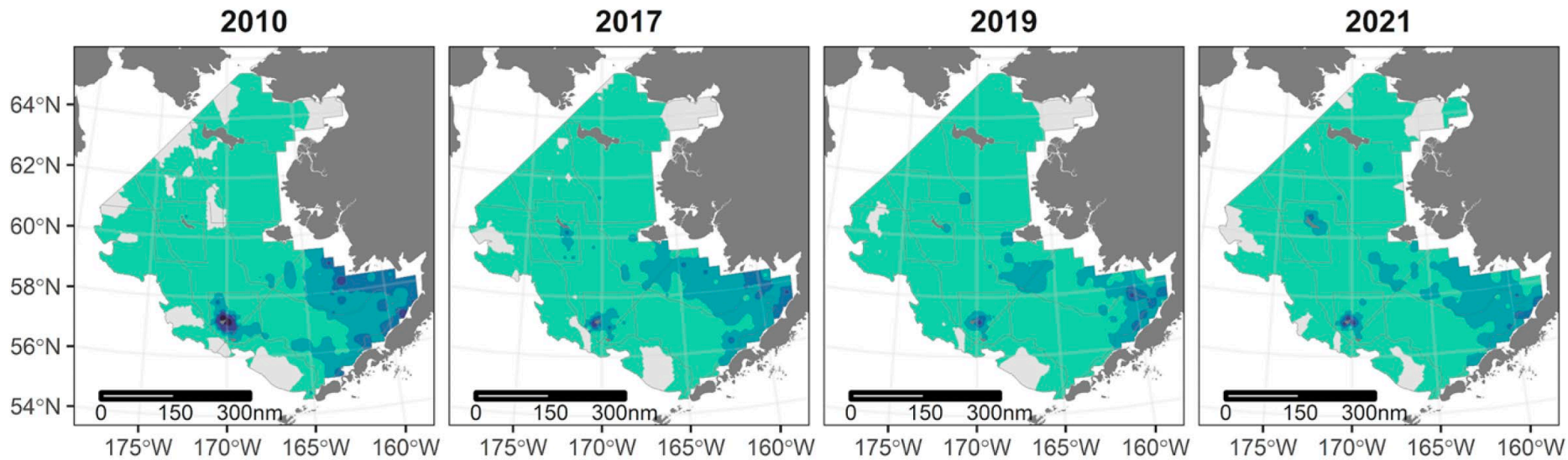
- Southeastern Bering Sea (mean = 1.8Mmt)
- Northern Bering Sea (mean = 0.1Mmt)

EBS Biomass
1.0M mt **5.9%**
from 2019
(1.0M mt)

NBS Biomass
0.1M mt **-22.6%**
from 2019
(0.1M mt)



Northern Rock Sole Distribution



EBS Trawl survey

More can be found in the individual assessment chapters

Essential Fish Habitat

Iterative review of components 1 (EFH descriptions and maps) and 7 (prey species lists and locations)

Next steps

- Presentation to the Crab Plan Team and Ecosystem Committee in January 2022
- SSC in February 2022.

Comments on Assessments in General

- Given challenges conducting stock assessments during these times
 - Suggest that informal (internal) reviews be conducted out of cycle
 - Encouraged authors to collaborate on issues they have in common to develop shared tools for use by all authors
- Relative to ESP, the Teams noted ambiguity in some indicators
 - E.g., the decrease in BSAI incidental sablefish catch: “good” or “bad”
 - **The Teams recommended “grey” traffic light color coding**

Sablefish assessment

Sablefish ESP

Time series and Table

Historical time series of indicators suite (~starts 1977)

Evaluate a given year 1 stdev from the long term mean

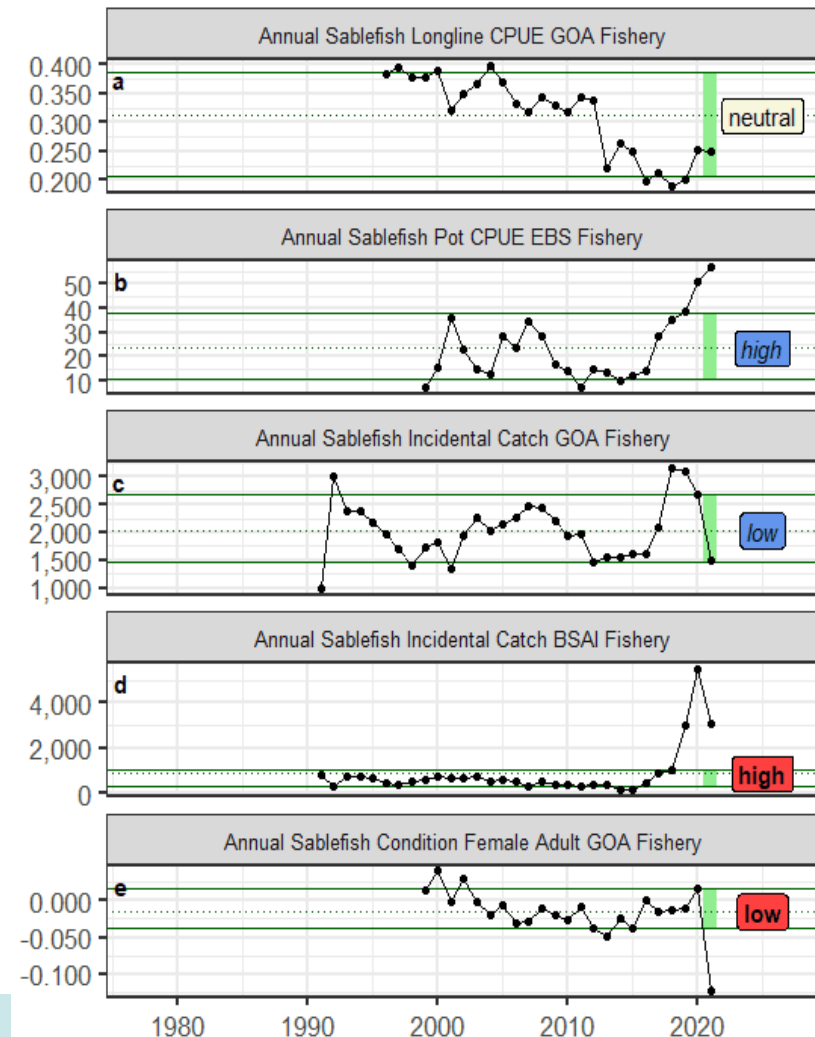
High (H), low (L), neutral (N), color is relationship with stock

Summary Score

Score by category last 20 yrs

Sum of H, L, N, color is -1,1

Traffic Light



Sablefish ESP

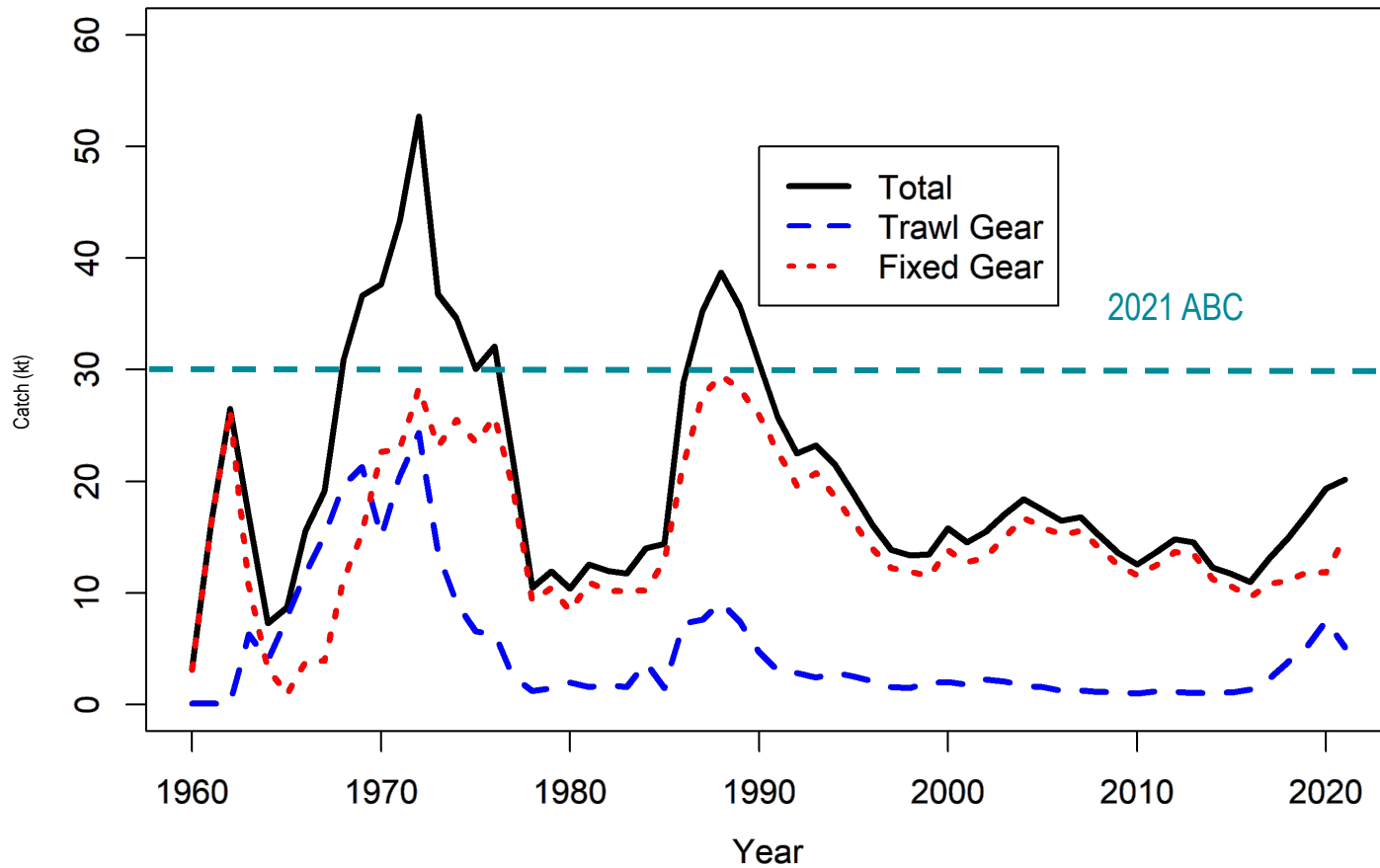
Management Summary

- Cooling overall in GOA, still warm in EBS, plankton average
- YOY growth average, juveniles high nearshore, avg offshore
- Survey condition avg or below avg, fishery condition poor
- BSAI pot CPUE & incidental catch high, value & price low

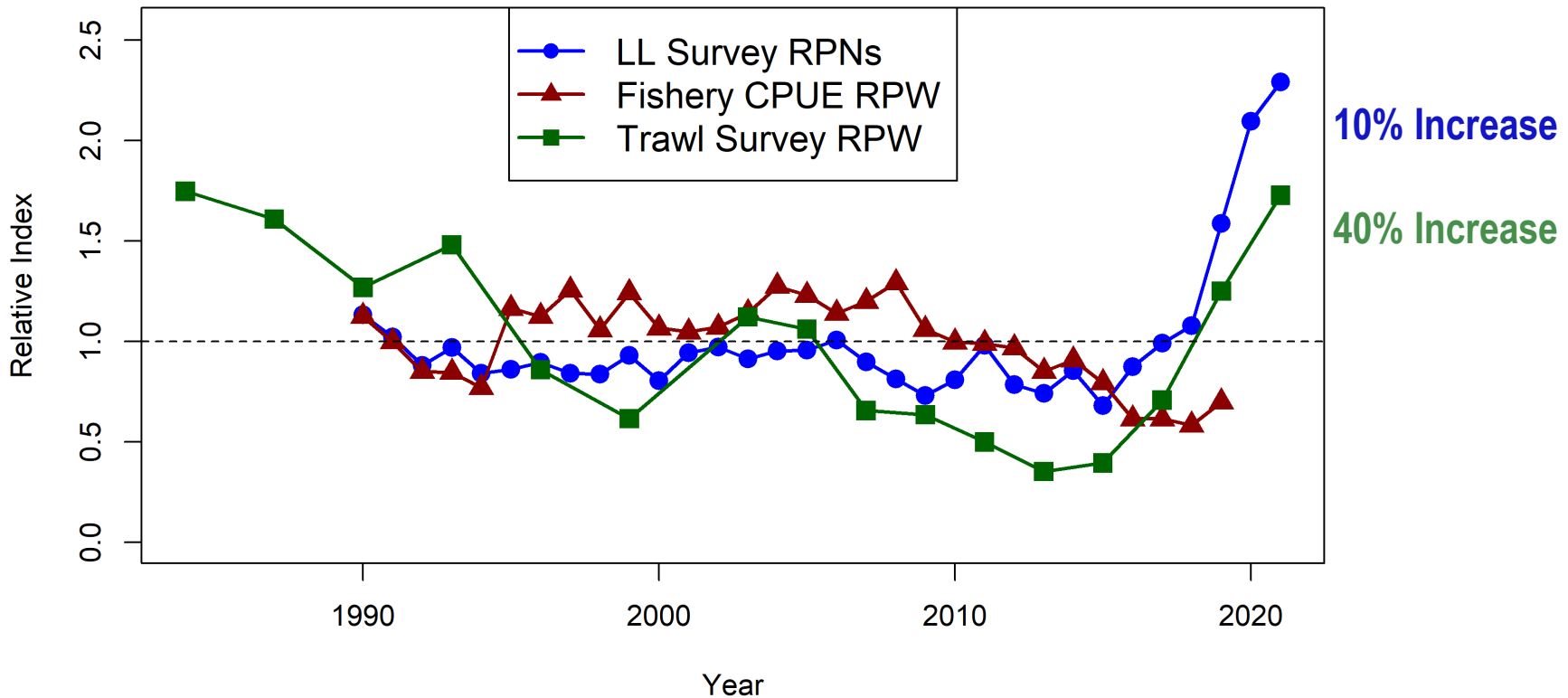
Modeling Summary

- 2 potential covariates for sablefish recruitment
- Several potential research ecosystem models (life cycle model with IBM, temperature projection model, tag model)

Sablefish catch



Sablefish indices



Sablefish

Model updates

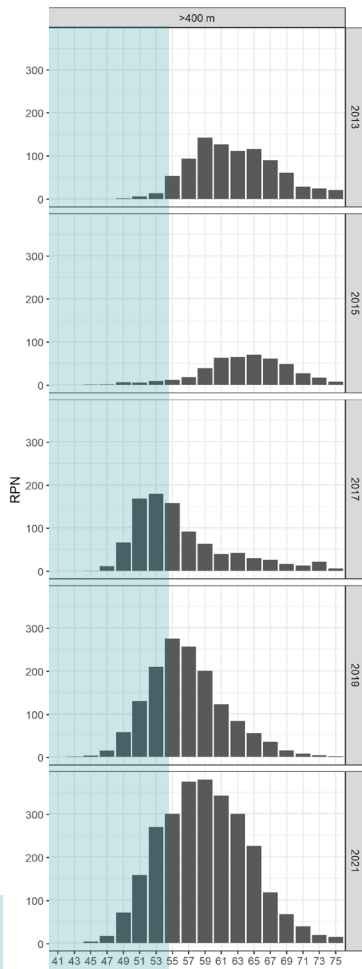
- Extended from September presentation with minor modifications
- 2 periods for age-length relationships
- Weight-at-age updated
- Removed catchability prior constraint
- Fishery catchability and selectivity and survey selectivity allowed to change in 2016
- Reweighting of composition data



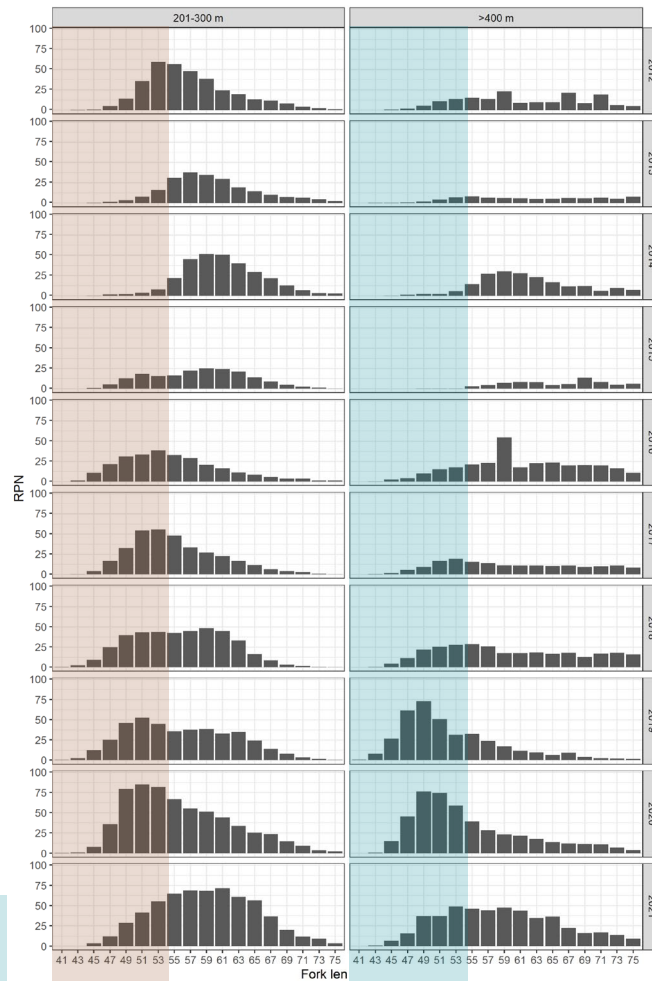
Sablefish

Longline Survey RPN by length

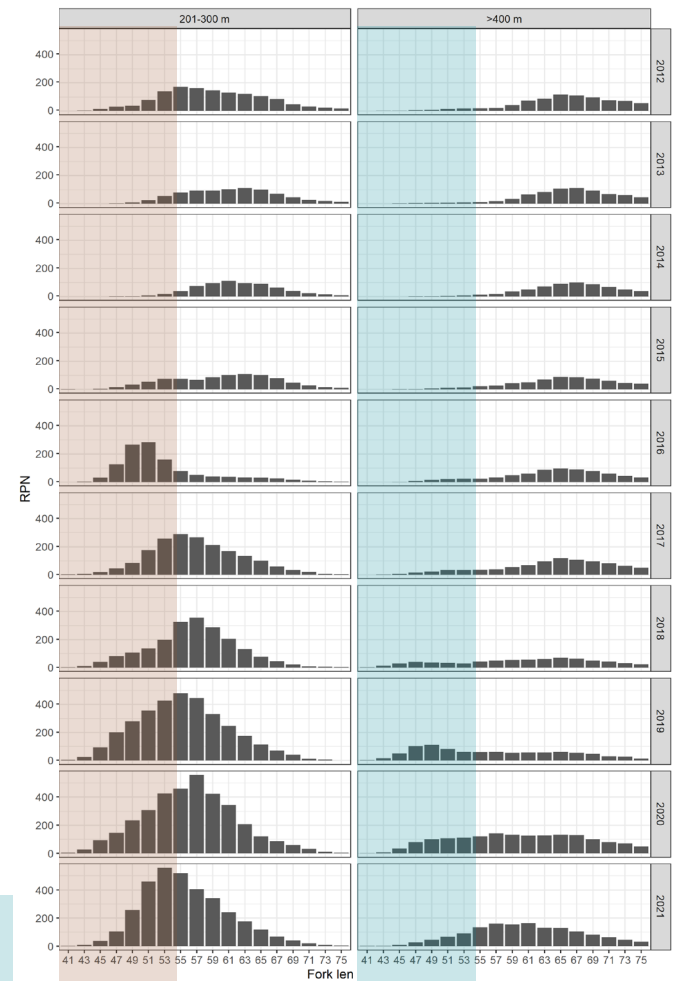
Bering Sea



Western GOA

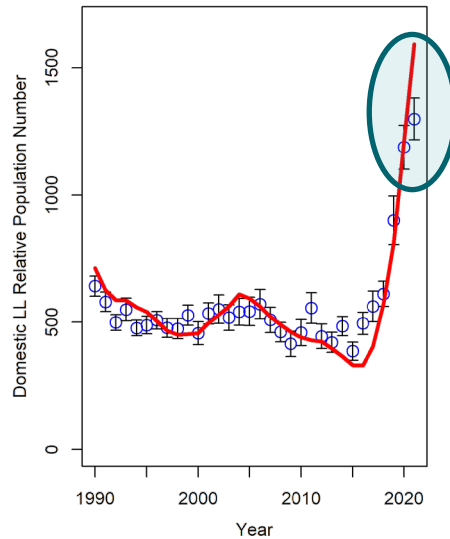
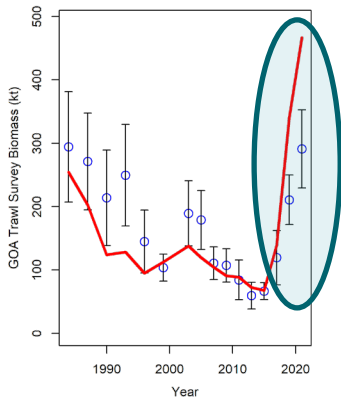
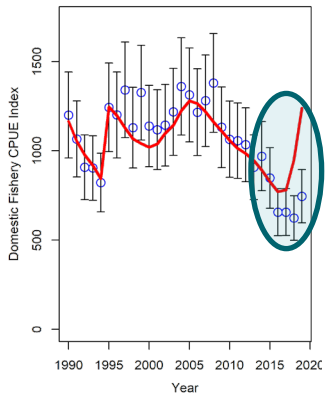


Central GOA

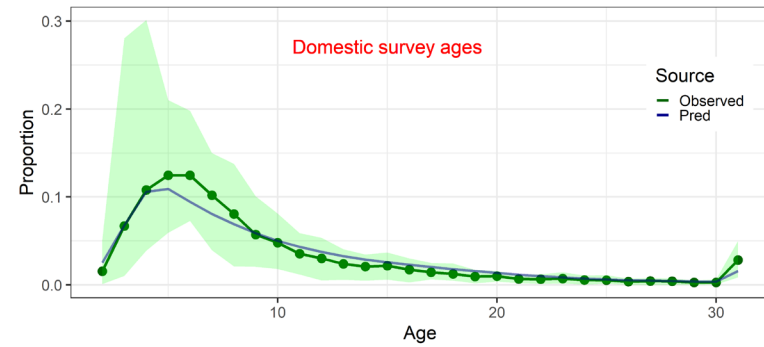


Sablefish

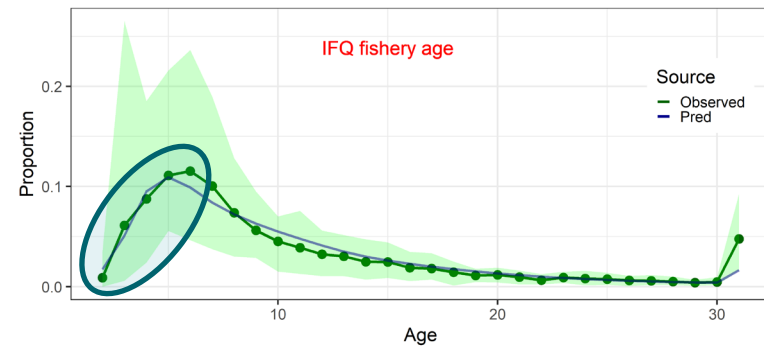
Without adjusting data weights



Aggregated observed compositions and predictions

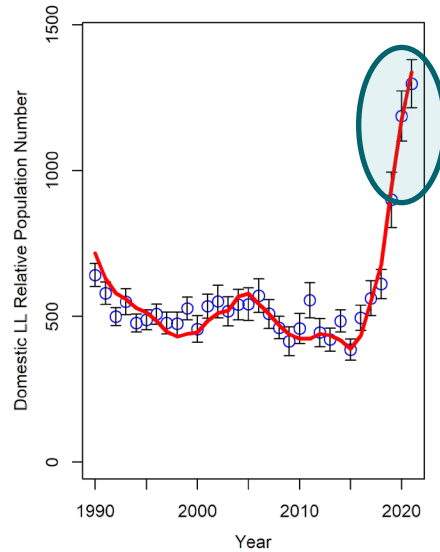
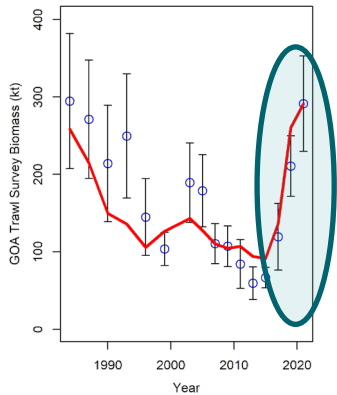
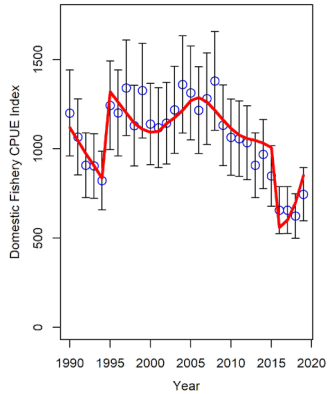


Aggregated observed compositions and predictions

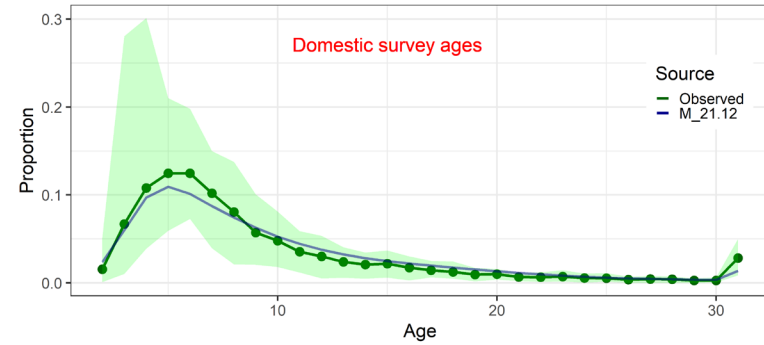


Sablefish

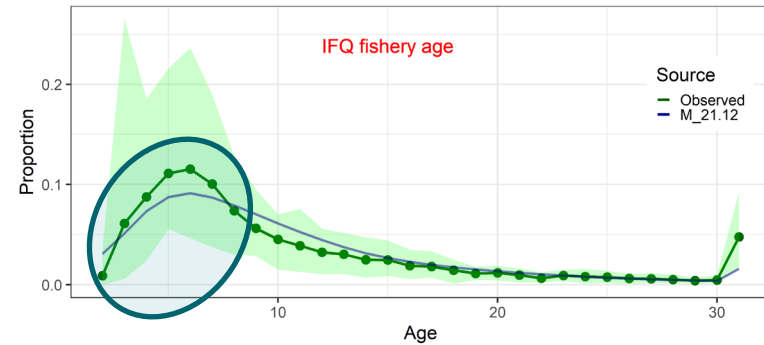
With statistical data weighting



Aggregated observed compositions and predictions



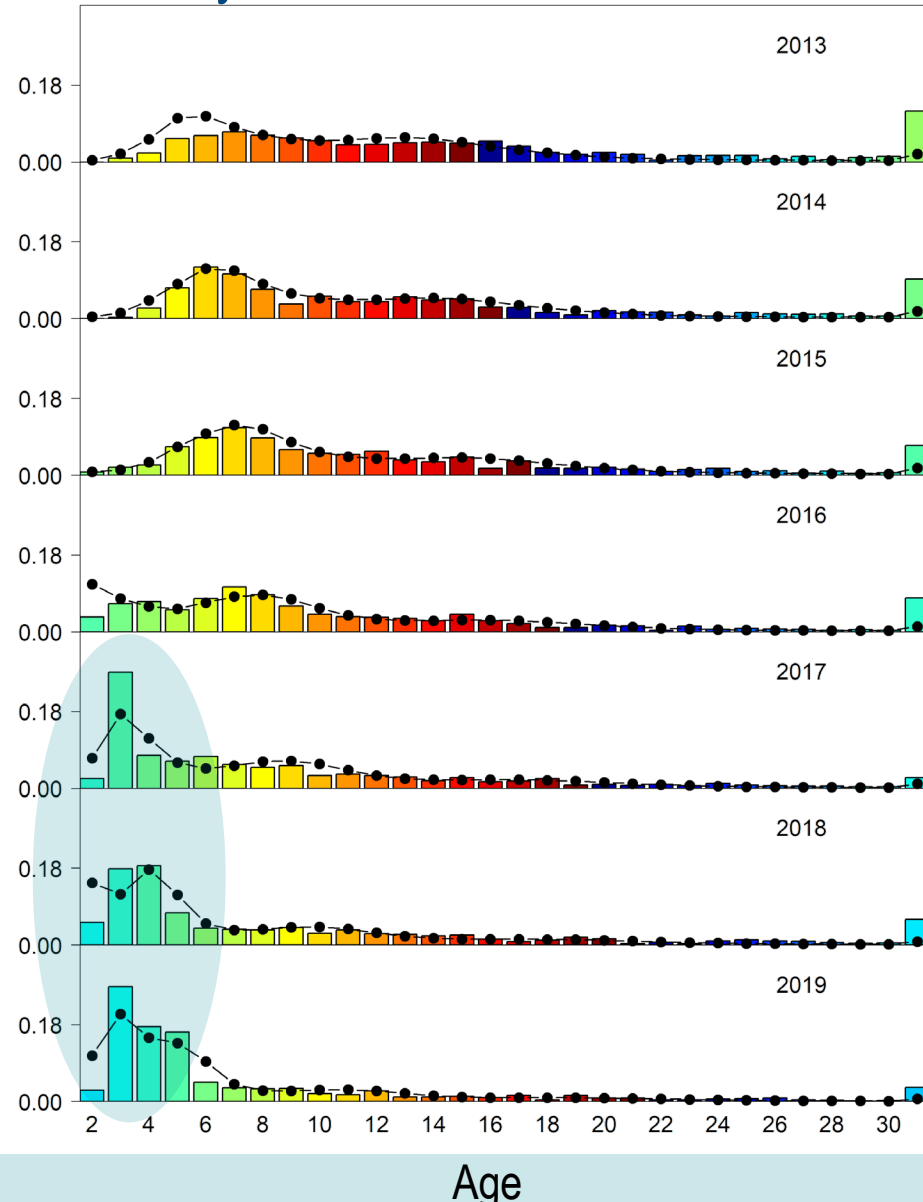
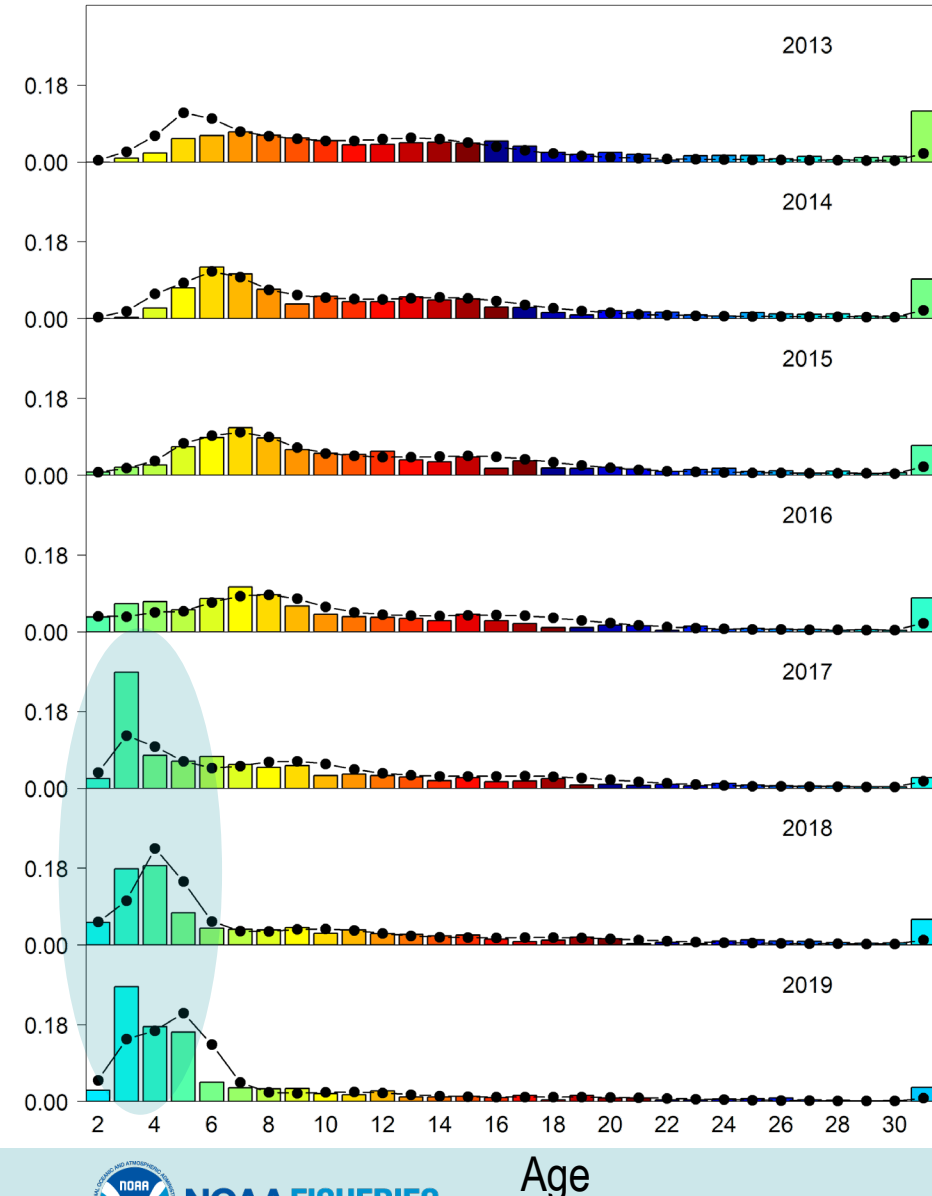
Aggregated observed compositions and predictions



Sablefish fit to fishery age compositions

Last year

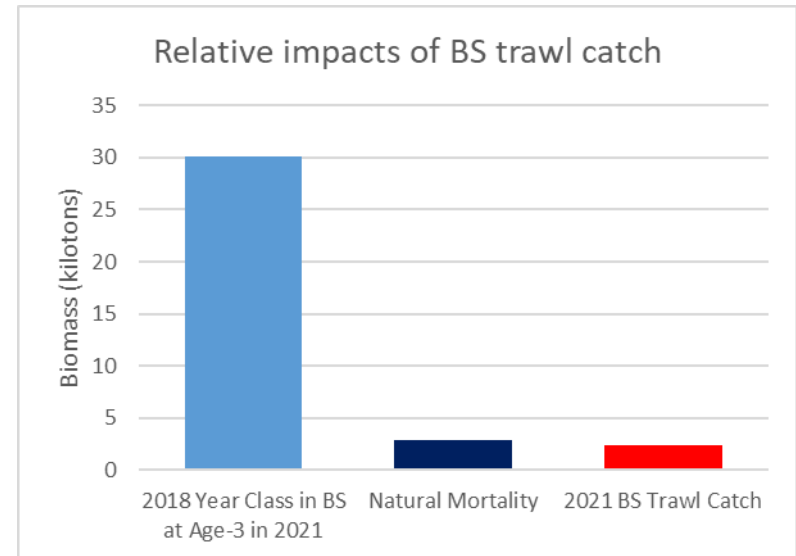
This year



Sablefish catch impacts

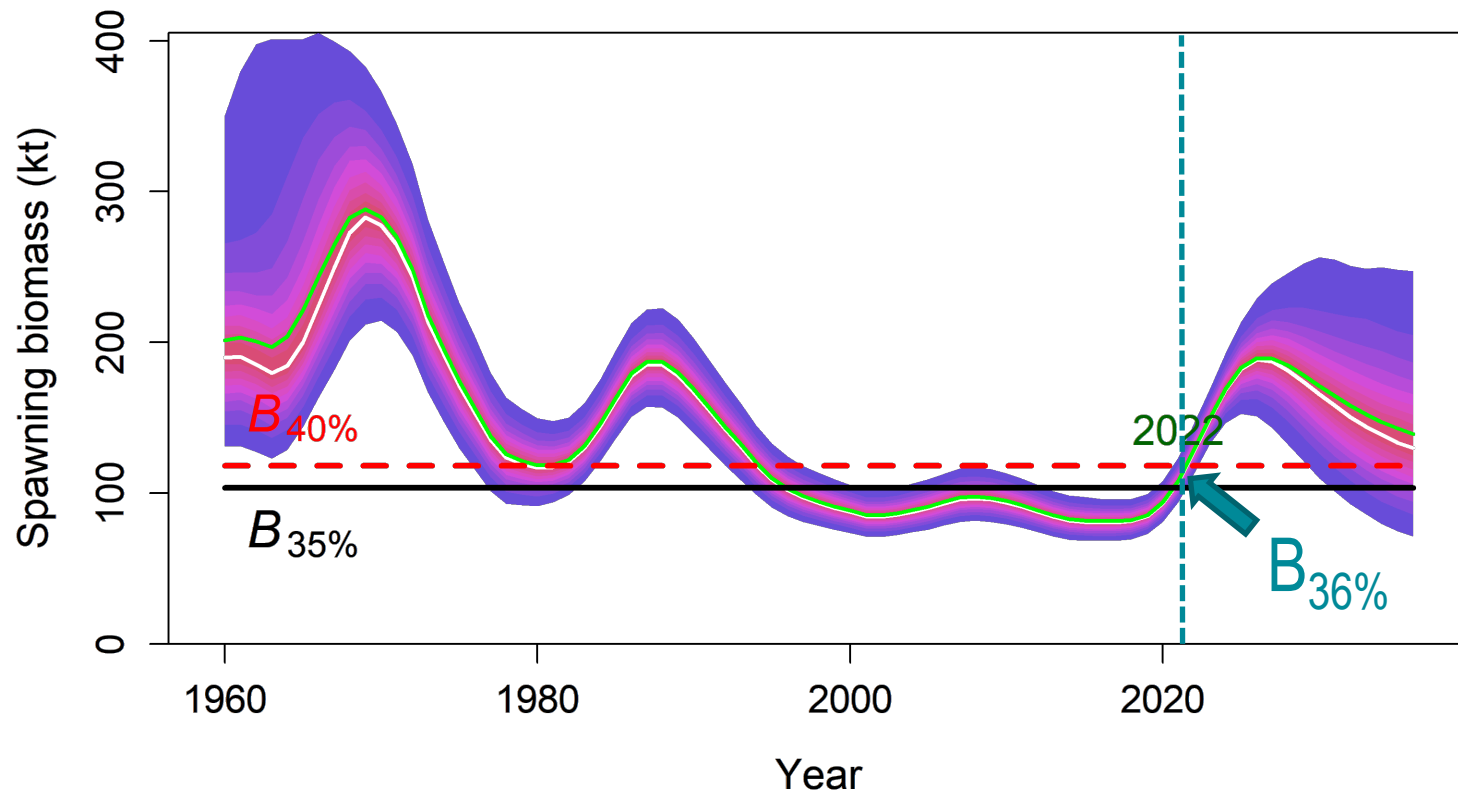
Year	Non-pelagic	Pelagic	Total
2010	29	1	30
2011	44	0	44
2012	93	0	93
2013	133	0	133
2014	34	0	34
2015	17	0	17
2016	239	18	257
2017	588	91	679
2018	623	395	1,018
2019	1,283	1,223	2,506
2020	1,071	3,397	4,468
2021	1,248	1,076	2,324

BS trawl catch decreased in 2021 along with % of catch coming from the trawl fleet.



Trawl removals in BS represent a small proportion of the total biomass for the most recent cohort estimated in the model (2018; assuming 32% of biomass is in the BS, based on LL survey proportions).

Sablefish



Sablefish assessment summary

Model and data significantly updated

- Improvements led to maxABC
- 2022 maxABC = 34,521 t
 - **+18% from 2021 ABC**
- **Apportionment based on 5-year average survey biomass proportions and year 2 (50%) of SSC 4-year stair step**
(recommendations include whale depredation impact)

Sablefish Plan Team summary

ESP-comment covered under general assessment issues

The Teams noted that changes in behavior due to observer restructuring in 2013 likely had impacts on some fishery performance indicators.

- **The Teams recommend that the authors explore the impacts of the 2013 switch to a new deployment plan and subsequent coverage changes on CPUE.**

Sablefish Plan Team summary

- Logbook/CPUE issues
- **The Teams agree that the fishery CPUE and logbook data are valuable to the assessment and recommend that the agencies involved prioritize access to these data so they are available with sufficient time to be incorporated into the assessment.**

Sablefish Plan Team summary

Author recommended 2022 ABC (with whale depredation adjustments).

Area	AI	BS	WG	CG	WY*	EY*	Total
2021 ABC	4,727	3,420	3,253	9,644	3,471	5,326	29,841
2022 ABC	6,486	5,305	3,821	10,008	3,179	6,064	34,863
2018 - 2020 Avg. Depredation	16	26	81	41	44	89	297
Ratio 2022:2021 ABC	1.37	1.55	1.17	1.04	0.92	1.14	1.17
Deduct 3-Year Adjusted Avg.	-23	-41	-95	-43	-40	-101	-342
**2022 ABC_w	6,463	5,264	3,727	9,965	3,139	5,963	34,521
Change from 2021 ABC _w	37%	55%	16%	5%	-9%	13%	17%

*Before 95:5 hook and line : trawl split between WY and EY/SE shown below.

**ABC_w is the author recommended ABC that accounts for whale depredation.

Author recommended 2022 – 2023 ABCs by Sector in West Yakutat and East Yakutat/Southeast adjusted for the 95:5 hook-and-line : trawl split in the EGOA.

Year	West Yakutat	E. Yakutat/ Southeast
2022	3,437	5,665
2023	3,159	5,398

*ABCs represent total regional ABC across gears, but with the 5% trawl allocation in EY/SE reallocated to WY.

ECONOMIC SAFE



Economic Status report contents

- Executive Summary: 2020 highlights
 - Report Card Metrics
 - Plan Team Reports (forthcoming)
- Overview of the Economic Data Tables
- Economic Data Tables
 - All Alaska summary Tables (1-9)
 - BSAI data Tables (10-25)
 - GOA data Tables (26-41)
 - Halibut data Tables (H1-H10).

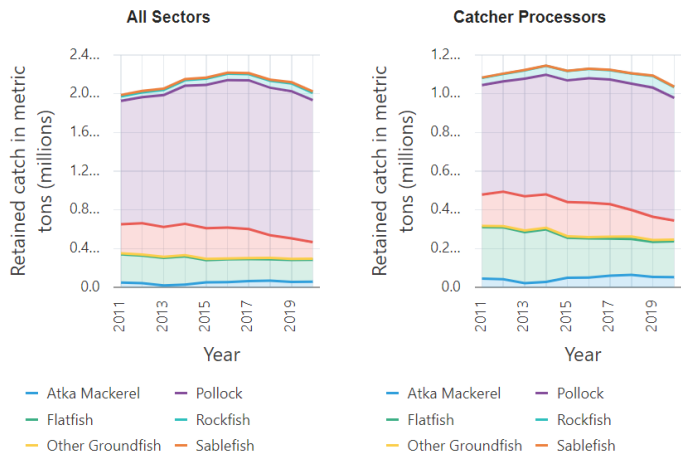
Tables primarily cover: Retained catch, ex-vessel value and prices, first-wholesale production and prices, vessel counts, and fishing and crew weeks.

Economic SAFE chapter

<https://reports.psmfc.org/akfin/f?p=501:2001>



AKFIN Development (by Jean Lee)



- + Catch and discards
- + Ex-vessel value
- + Wholesale production and value
- + Effort
- + Fleets

Economic SAFE chapter

Teams' recommendation

- The Teams agree that it would be useful to have a coordinated effort to improve the integration of socioeconomic work, but
- **recommend that this be done in careful consideration of existing workload as part of the process and that a broad discussion with NOAA, SSPT, and Council staff be undertaken in this planning process.**