C1 Joint Groundfish November 2024 Plan Team Report

Steve Barbeaux, Sara Cleaver, Jim Ianelli, Chris Lunsford,
Kalei Shotwell, Diana Stram, Cindy Tribuzio

NOAA FISHERIES

December 2024, Presentation to the Council

NORTH PACIFIC
FISHERY MANAGEMENT COUNCIL

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SAFE REPORTS

North Pacific Stock Assessment and Fishery Evaluation Reports: The Guidelines for Fishery Management Plans published by the National Marine Fisheries Service require that a stock assessme evaluation report (SAFE) be prepared and reviewed annually for each fishery management plan. The SAFE reports are intended to summarize the best available scientific information concerning t present, and future condition of the stocks, marine ecosystems, and fisheries under Federal management. Staff contacts are: BSAI Groundfish – Diana Stram, GOA Groundfish – Sara Cleaver, BSAI Stram, Scallops – Diana Stram

CURRENT YEAR GROUNDFISH SAFES

The 2024 groundfish SAFE report chapters (including the introduction for both the BSAI and GOA) for the December Council meeting are provided below. Previous assessments from 2023 ar available here.

Bering Sea and Aleutian Islands (BSAI)	Gulf of Alaska (GOA)	BSAI/GOA
Introduction	**Introduction**	
Multi-Species Model Ecosystem Status Report (ESR): • Eastern Bering Sea ESR • Aleutian Islands ESR	Ecosystem Status Report (ESR): • Gulf of Alaska ESR	• Sculpins *(off year)* • Forage Fish • Grenadiers
Eastern Bering Sea Pollock • Aleutian Is. Pollock	GOA Pollock • ESP Appendix 1A	

GF Plan Team Meetings, November 12-15th, 2024

Report from the Joint Meeting of the Groundfish Plan Teams

November 12, 2024

BSAI Groundfish Plan Team Members:

Steve Barbeaux	AFSC REFM (co-chair)	Kirstin Holsman	AFSC REFM
Kalei Shotwell	AFSC REFM (co-chair)	Andy Kingham	AFSC FMA
Cindy Tribuzio	AFSC ABL (vice chair)	Beth Matta	AFSC REFM
Diana Stram	NPFMC (coordinator)	Andrew Seitz	UAF
Lukas DeFilippo	AFSC ABL/EMA	Jane Sullivan	AFSC ABL
Allan Hicks	IPHC	Steven Whitney	NMFS AKRO
Lisa Hillier	WDFW		

GOA Groundfish Plan Team Members:

Jim Ianelli	AFSC REFM (co-chair)	Pete Hulson	AFSC ABL
Chris Lunsford	AFSC ABL (co-chair)	Sandra Lowe	AFSC REFM
Sara Cleaver	NPFMC (coordinator)	Nat Nichols	ADF&G
Abby Jahn	NMFS AKRO	Jan Rumble	ADF&G
Craig Faunce	AFSC FMA	Paul Spencer	AFSC REFM
Lisa Hillier	WDFW	Ben Williams	AFSC ABL
Sophia Wassermann	AFSC RACE	James Thorson	AFSC REFM

Joint Plan Team meeting overview and agenda

Overview
Date: November 12th
Place: Seattle and online

Agenda for Joint Teams

- draft Economic SAFE
- Sablefish assessment (+ESP)
- Ecosystem Components
  - Forage Fish report
  - Grenadiers report

Economic SAFE Report

- Highlighted a general decrease in the value of most stocks in 2023
  → primarily attributed to price declines.
- Nowcasts, utilizing data through October 2024, have been reintroduced into the SAFE

Joint Team:

- raised questions about ability to incorporate labor costs in future SAFEs
- Meeting participants noted that prices have continued to decline in 2024 beyond what is reflected in the SAFE report.

SSC/Council is not reviewing Econ SAFE at this meeting.

Sablefish Ecosystem and Socioeconomic Profile (ESP)

Ecosystem (ABC Information):

- Overall average (YOY ↔, juv ↓, adult ↓)
- Surface temps cooler, less transport
- Adequate prey, increased YOY size
- Decreased nearshore CPUE, possibly large 2022 year class
- Good adult condition, less competition/predation

Socioeconomic (TAC Information):

- 2024 data, small/large sizes <, middle sizes >
- Prices reach historic low ($1.53/#), larger fish price < faster
- % TAC low in 2024 except BSea, Wyak, ex-vessel value 4 yr low
- Shift in top community participants

Sablefish ESP

- Kalei Shotwell presented the report card for the sablefish ESP provided as an appendix D available here

No feedback on ecosystem indicators from Teams

Table 3D.2: First stage ecosystem indicator analysis for sablefish, including indicator title and the indicator status of the last five years. The indicator status is designated with text, (greater than = "high", less than = "low", or within 1 standard deviation = "neutral" of the long-term mean). Fill color of the cell is based on the proposed sign of the overall relationship between the indicator and the stock (blue or italicized text = good conditions for the stock, red or bold text = poor conditions, white = average conditions). A gray fill and text = "NA" will appear if there were no data for that year.

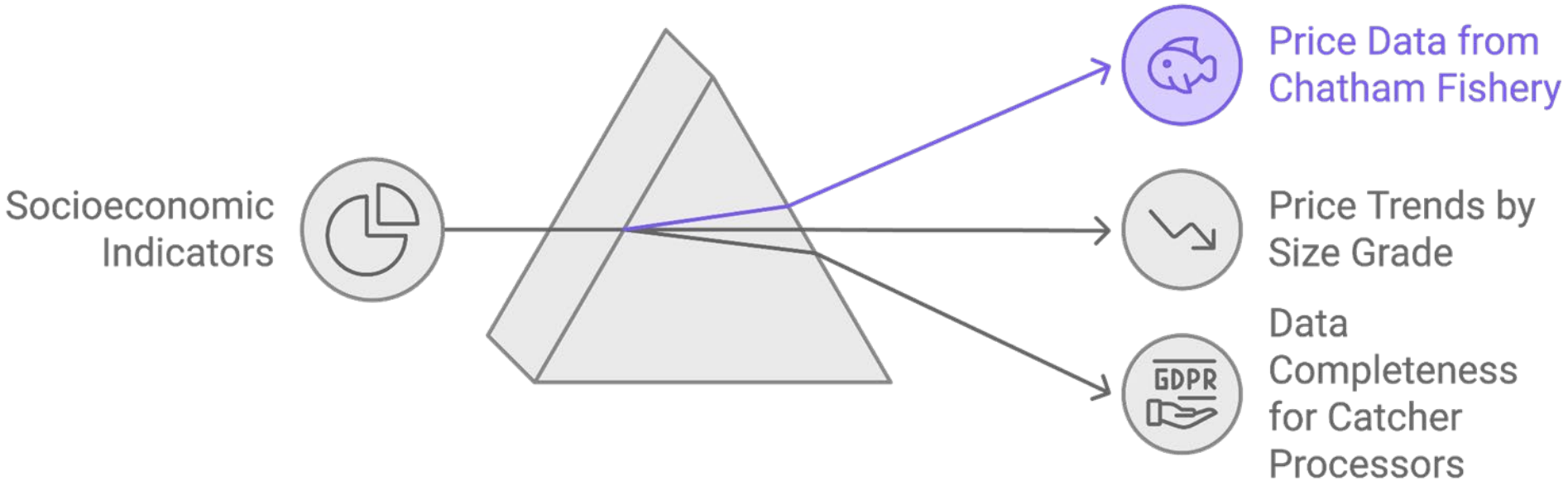
Indicator category	Indicator	2020 Status	2021 Status	2022 Status	2023 Status	2024 Status
Larval to YOY	Annual Heatwave GOA Model	neutral	neutral	neutral	neutral	neutral
	Spring Temperature Surface GOA Satellite	*high*	neutral	neutral	neutral	neutral
	* Spring Temperature Surface SEBS Satellite	*high*	neutral	neutral	neutral	neutral
	Annual Eddy Kinetic Energy Amchitka Satellite	neutral	neutral	*high*	*high*	neutral
	Annual Copepod Community Size EGOA Survey	neutral	neutral	neutral	neutral	NA
	Annual Copepod Community Size WGOA Survey	neutral	neutral	*low*	neutral	NA
	Annual Sablefish Size YOY Middleton Survey	neutral	**low**	neutral	**low**	neutral
Juvenile	* Summer Sablefish CPUE Juvenile Nearshore GOAAI Survey	*high*	*high*	*high*	neutral	neutral
	Summer Sablefish CPUE Juvenile GOA Survey	NA	neutral	NA	neutral	NA
	Annual Small Sablefish Incidental Hauls EBS Fishery	*high*	neutral	neutral	*high*	neutral
Adult	Summer Temperature 250m GOA Survey	neutral	neutral	**high**	neutral	NA
	Summer Sablefish Condition Female Age4 GOA Survey	neutral	*high*	**low**	*high*	NA
	Summer Sablefish Condition Female Adult GOA Survey	neutral	neutral	**low**	*high*	NA
	Annual Sablefish Incidental Catch Arrowtooth Target GOA Fishery	neutral	neutral	neutral	neutral	neutral

Sablefish ESP

- Kalei Shotwell presented the report card for the sablefish ESP provided as an appendix D available here

No feedback on ecosystem indicators from Teams

For socioeconomic indicators:



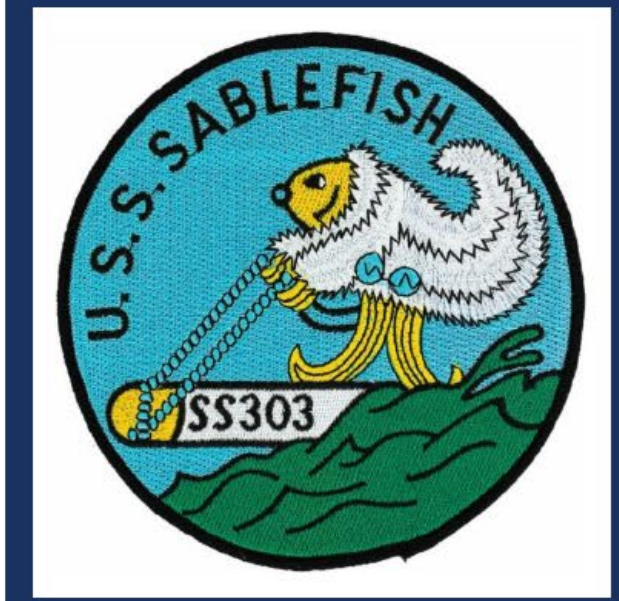
Assessment of the Sablefish Stock in Alaska

Groundfish Joint Plan Team

Daniel Goethel and Matt Cheng

Contributors: Kalei Shotwell, Bridget Ferriss, Elizabeth Siddon, Ivonne Ortiz, Kevin Siwicke, Katy Echave, Cindy Tribuzio

November, 2024

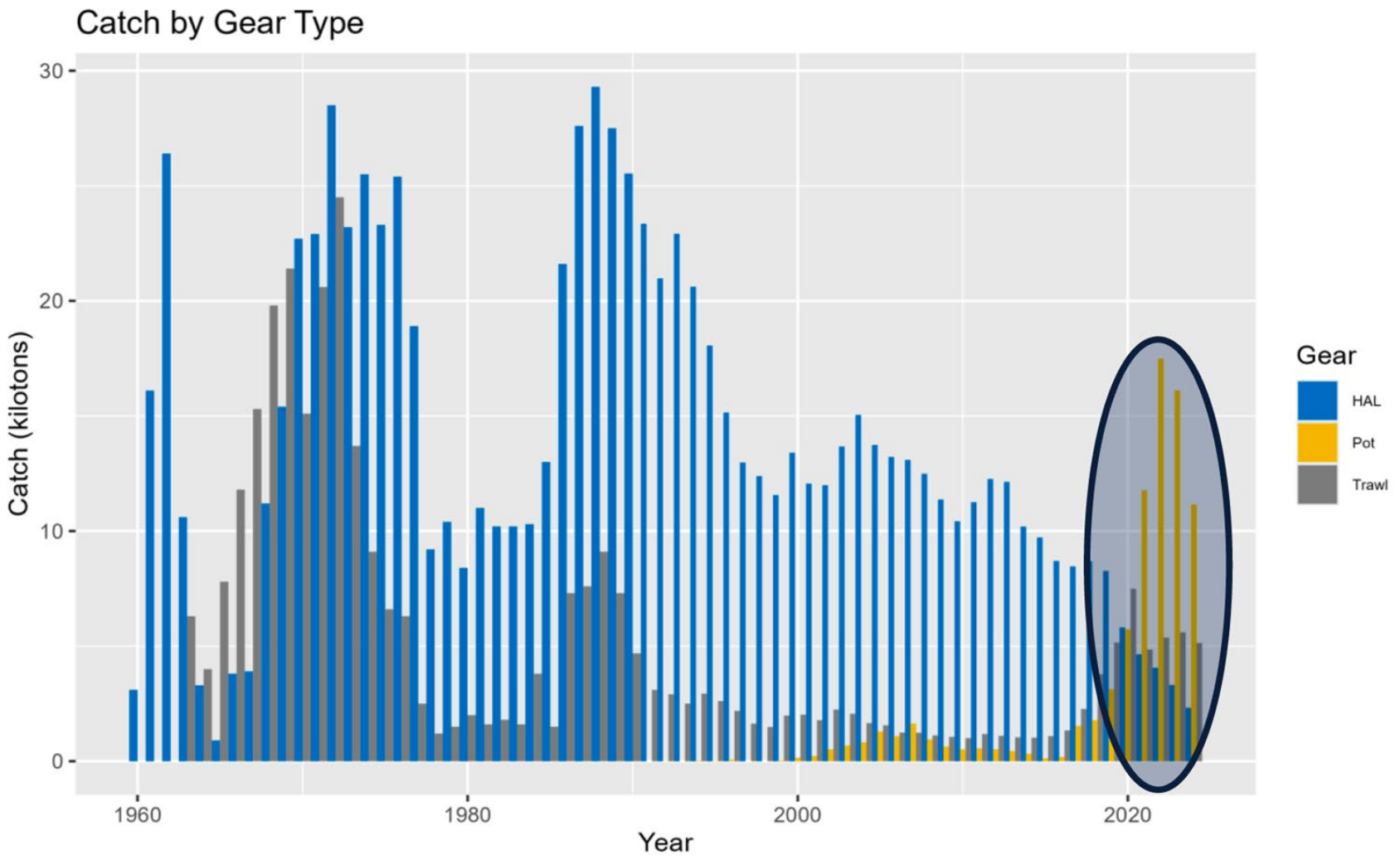


SAFE Chapter 3 Sablefish

Increase in pot gear catch

Whale depredation constant since 2022

Last operational full sablefish assessment (2021)

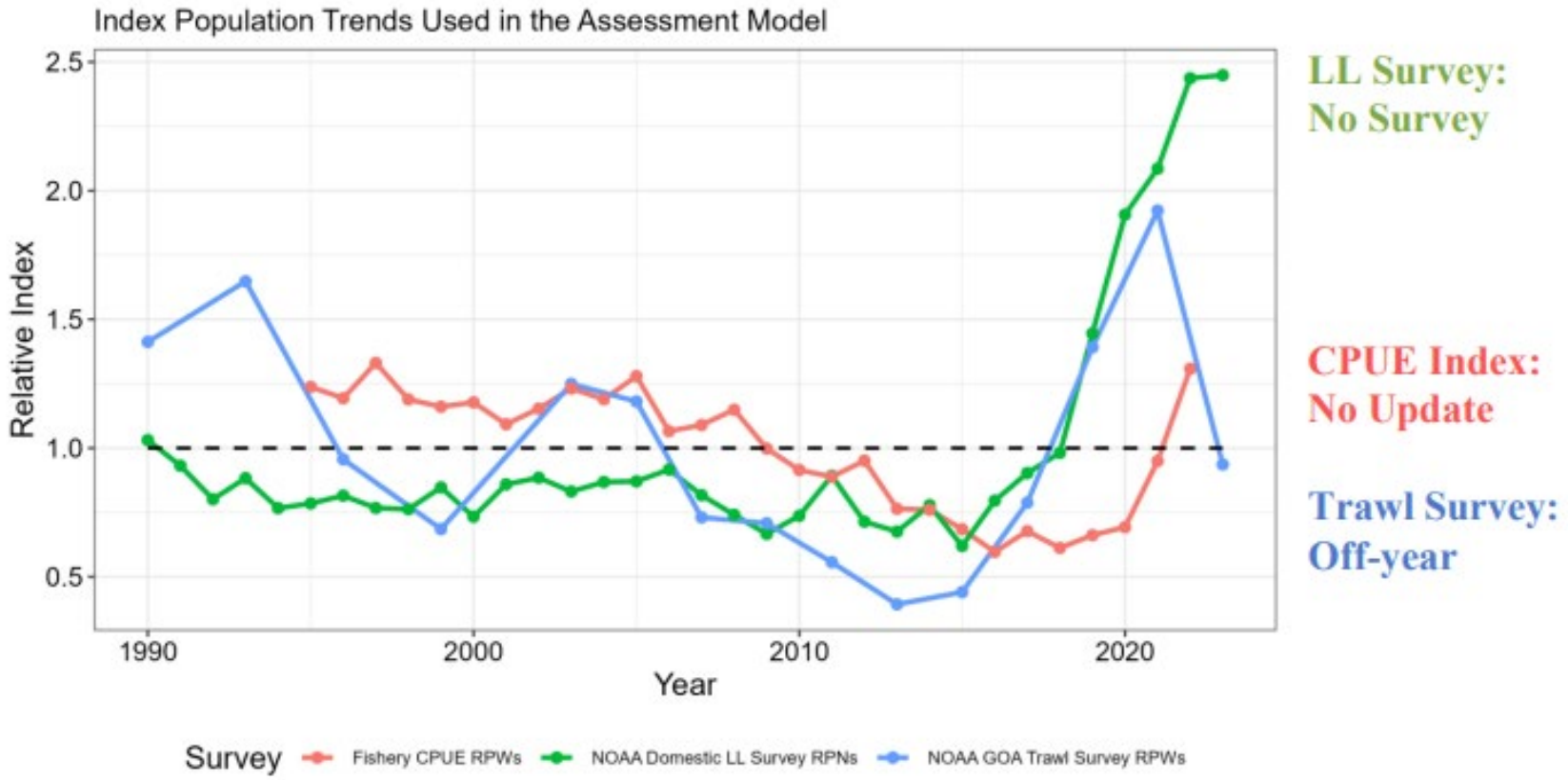


Thanks to Dan Goethel

SAFE Chapter 3 Sablefish (from 2023 assessment)

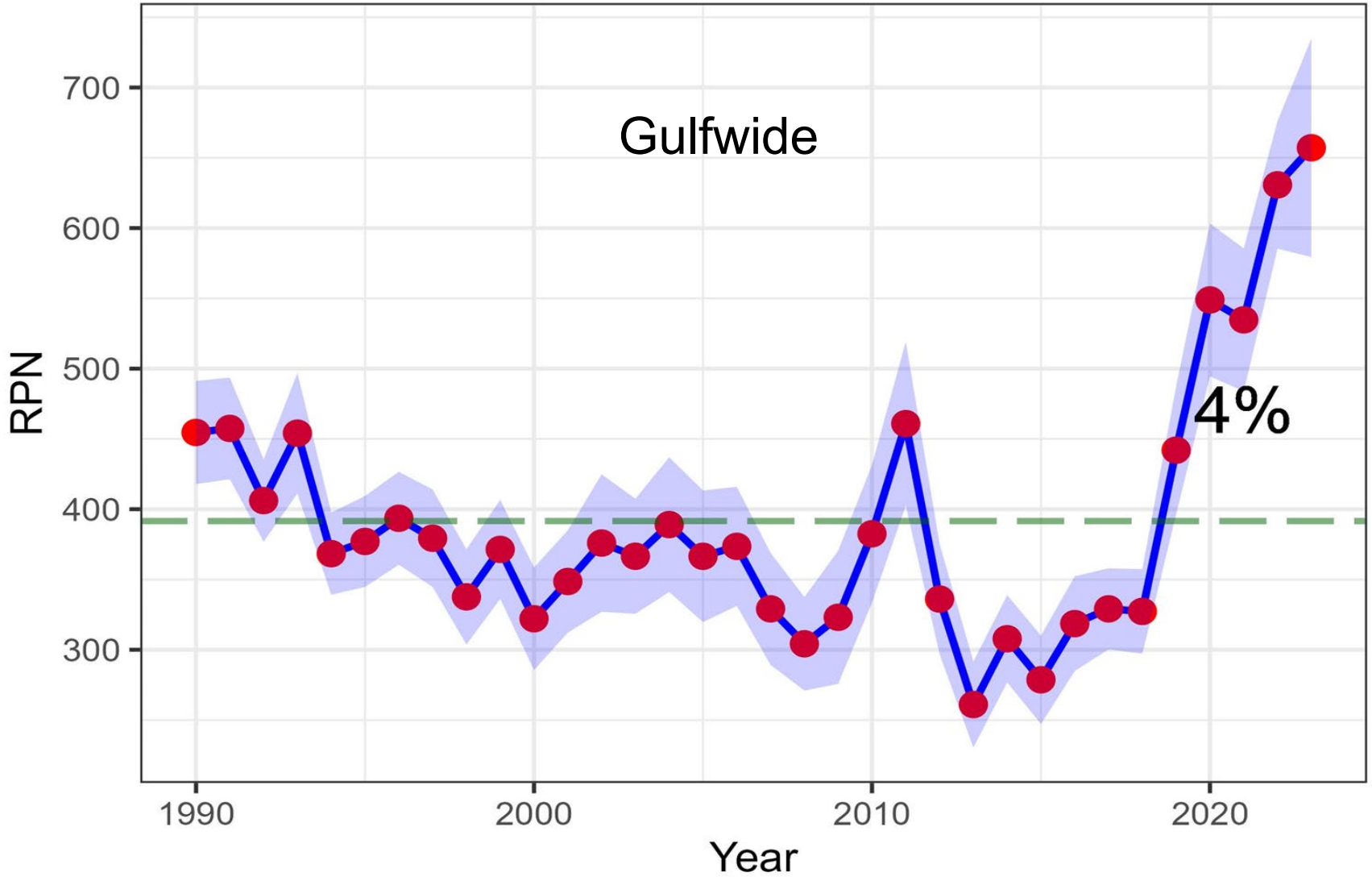
Indices

- No longline survey in 2024 due to market conditions (cost recovery survey)
- 2023 value slightly higher than 2022



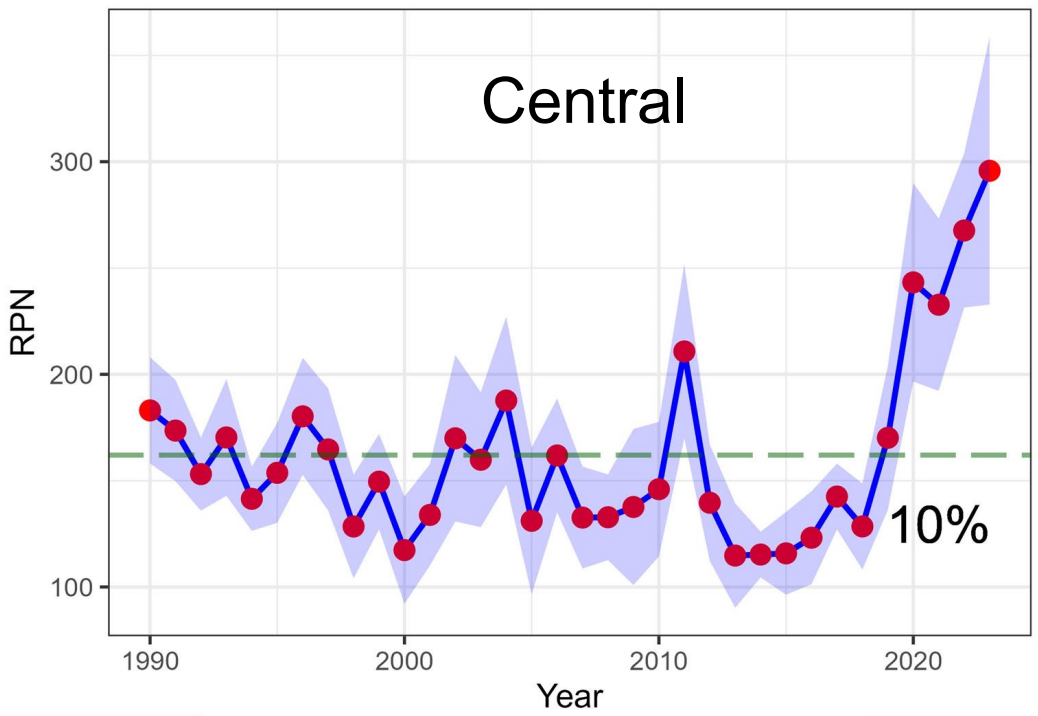
SAFE Chapter 3 Sablefish: GOA (from 2023 assessment)

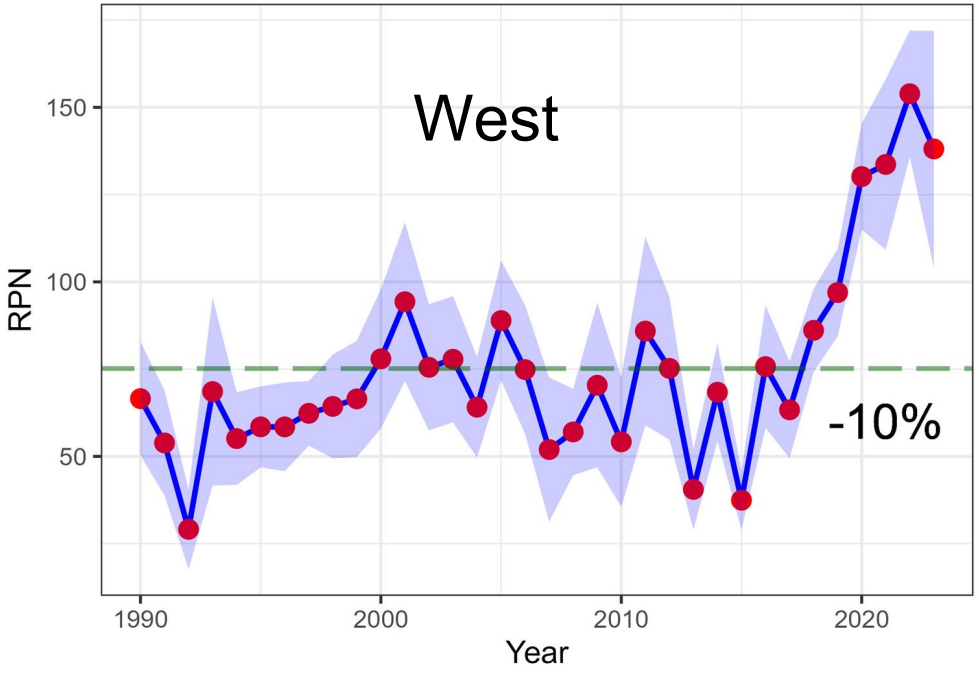
Longline survey through 2023

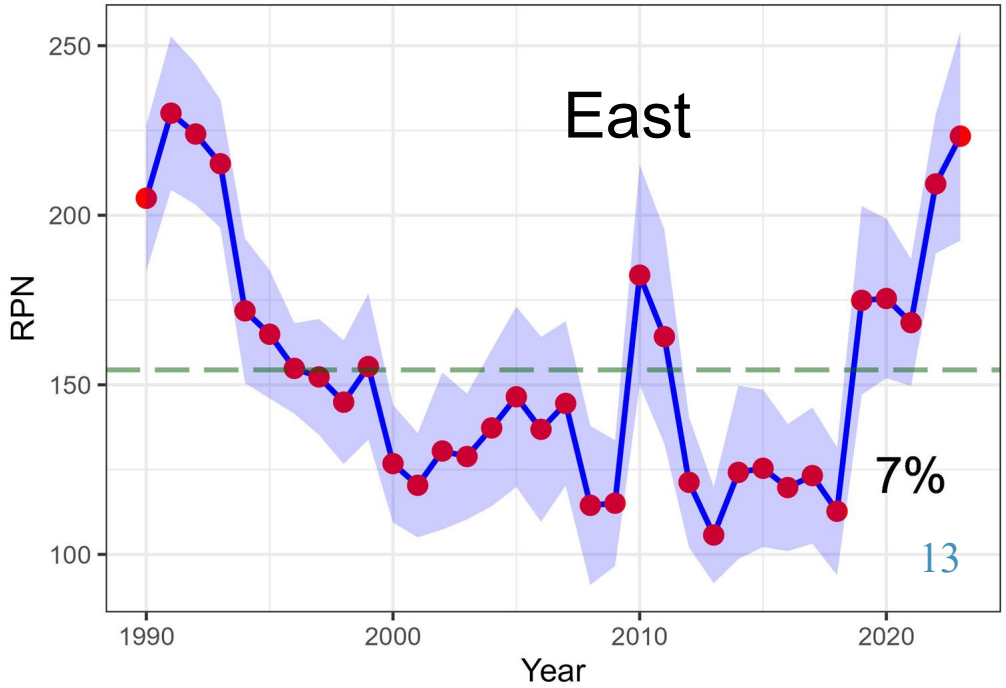


Chapter 3
Sablefish: GOA

Longline survey through 2023

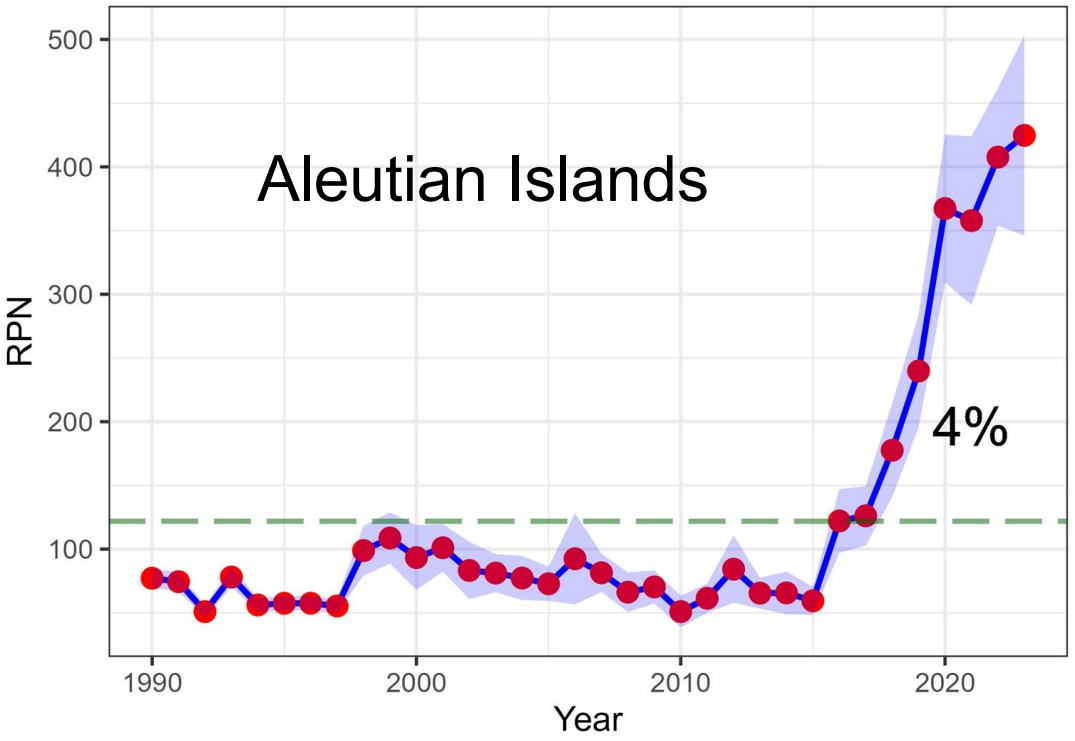


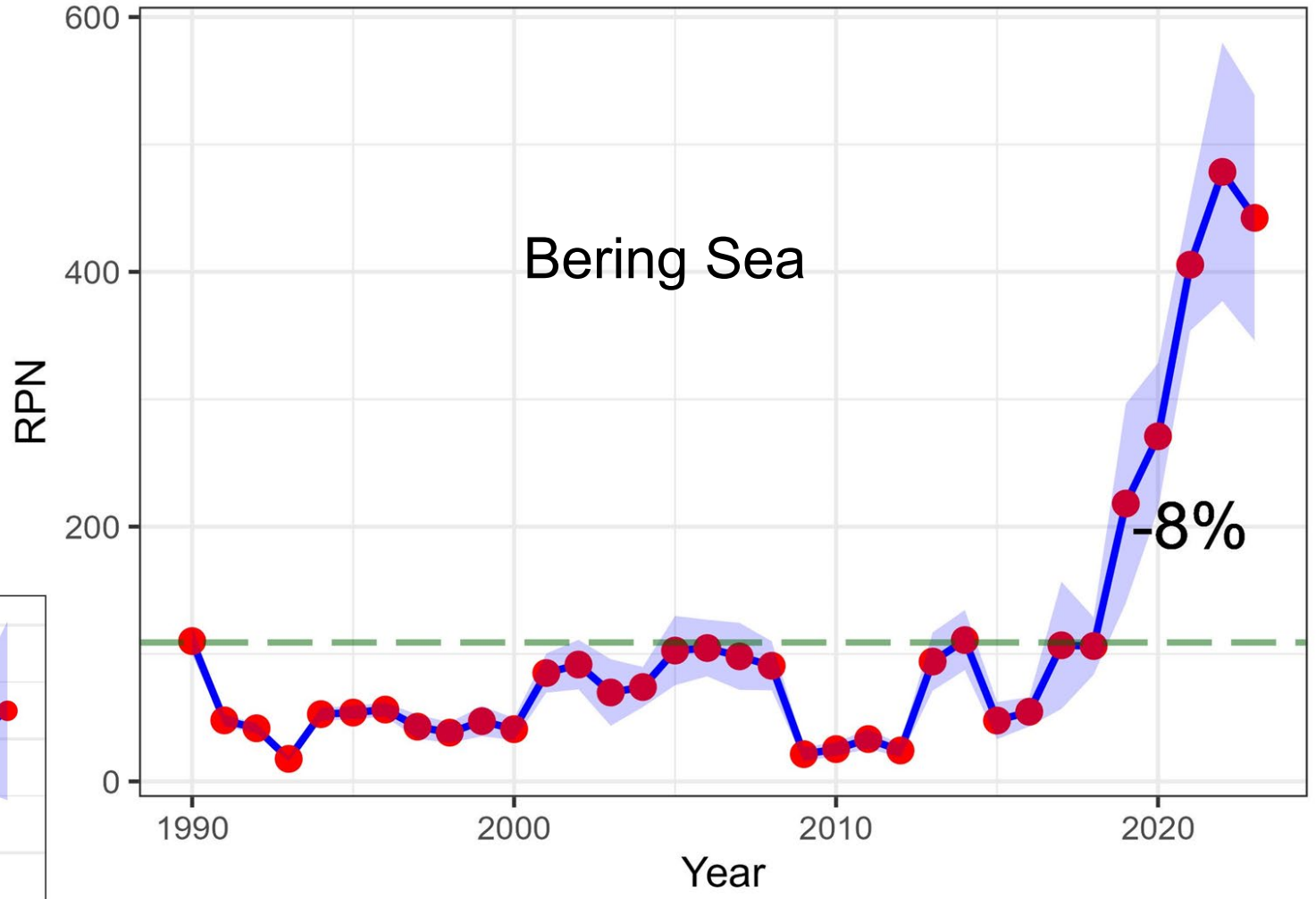




Chapter 3
Sablefish: BSAI (from 2023)

Longline survey through 2023





Sablefish Summary

- Transition to pot gear (> 80% of fixed gear catch)
- Influx of small fish
  - Decreasing economic value and flooded markets
  - Total biomass growth slowed, but SSB increasing faster

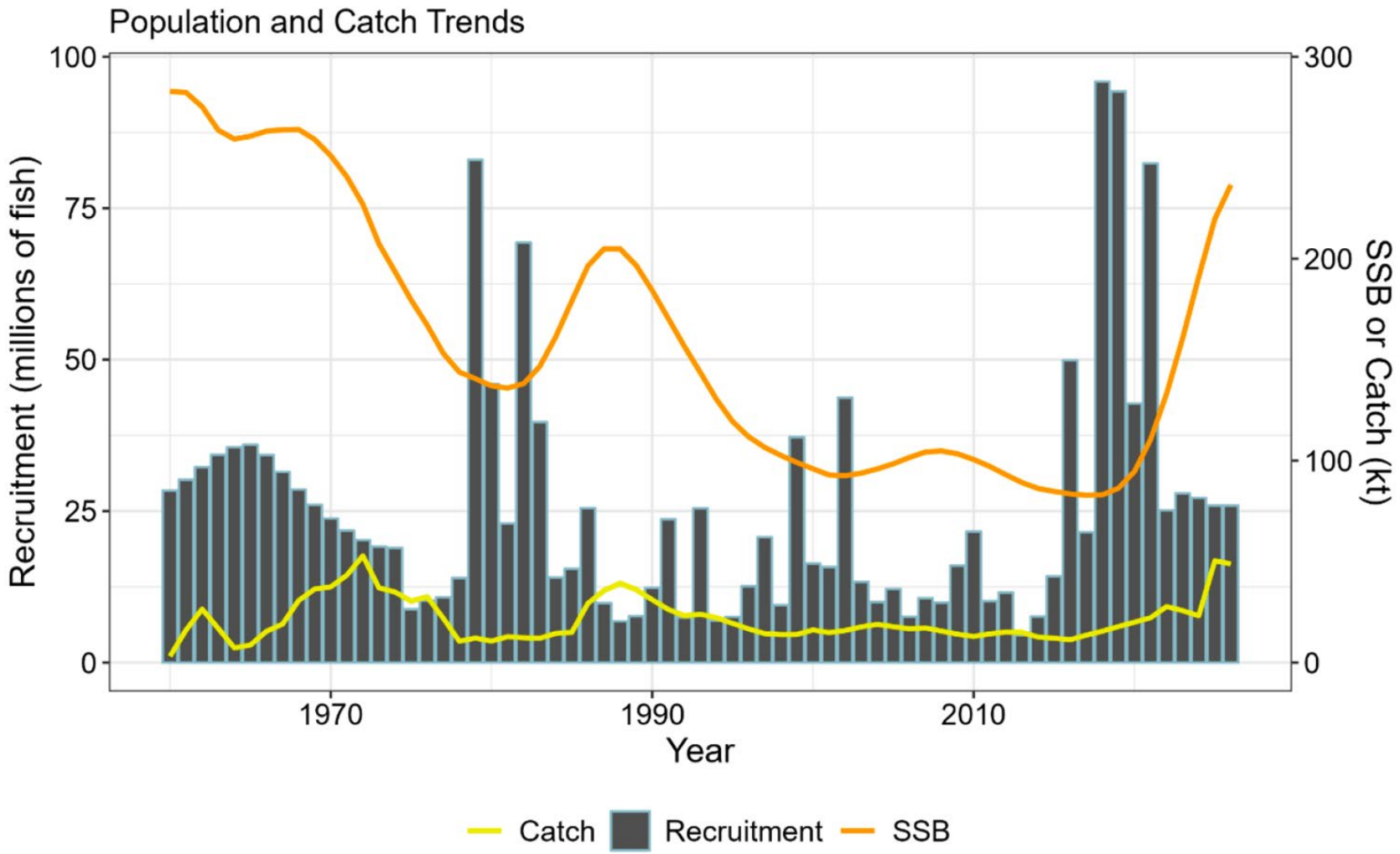
If Catch = ABC SSB trend will reverse as recruitment reverts to average

SSB projection to 2025 indicate ~81% Made up of 2014-2021 year-classes

Fishing mortality remains at low levels (< FABC)

15

Sablefish

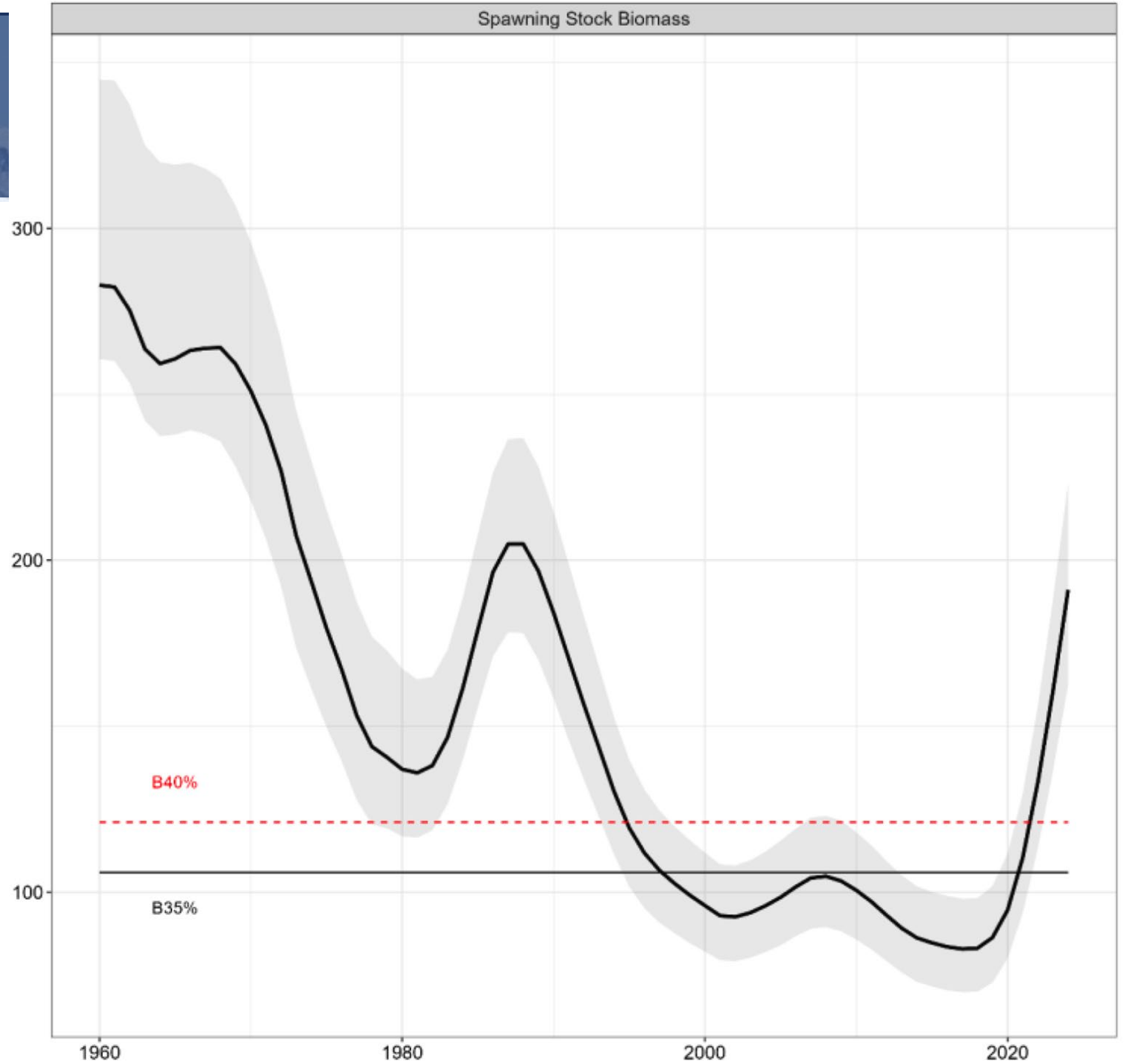


Recruitment

2016, 2017, and 2019 year classes are 3 of the largest on record

Sablefish

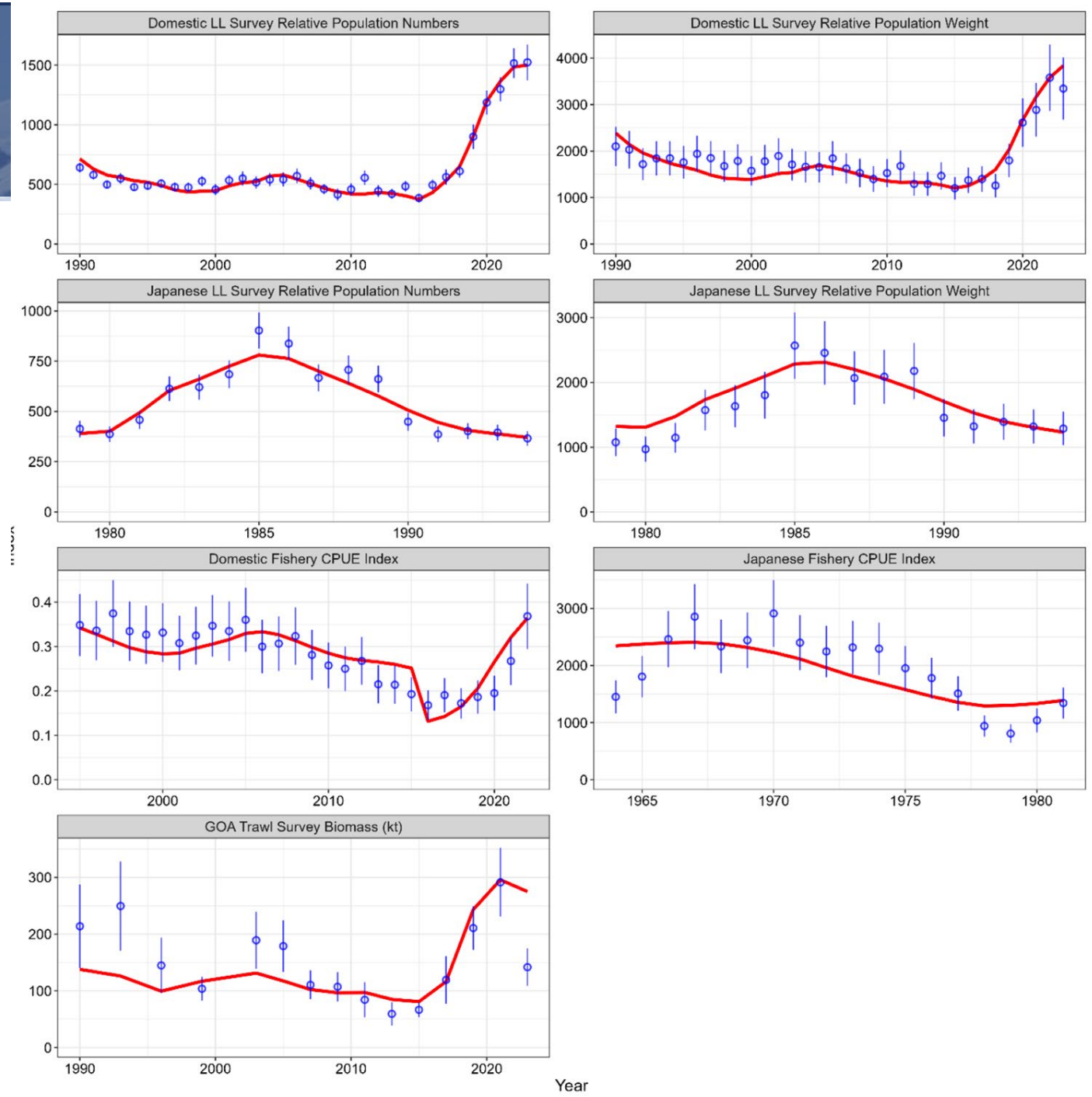
- Spawning biomass
  - At B63% in 2024
  - Projected to be at B73% by 2025



Sablefish fits

The Teams recommended that the author perform a runs test of randomness to test autocorrelation in the fits to the indices.

Wrt fishery CPUE: “The Teams recommended exploring ways to update the standardized fishery CPUE index using only observer data.”



Sablefish fits

The Teams recommended the author explore the potential impact of time-varying selectivity, either by directly modeling it as a time-varying process or by mitigating its impact on other parameters, such as by exploring changes in the set of ages over which the age-length comps are fitted.

The Teams recommended exploration of data-weighting methods that can be estimated jointly with changes in the variance of the time-varying selectivity parameters.

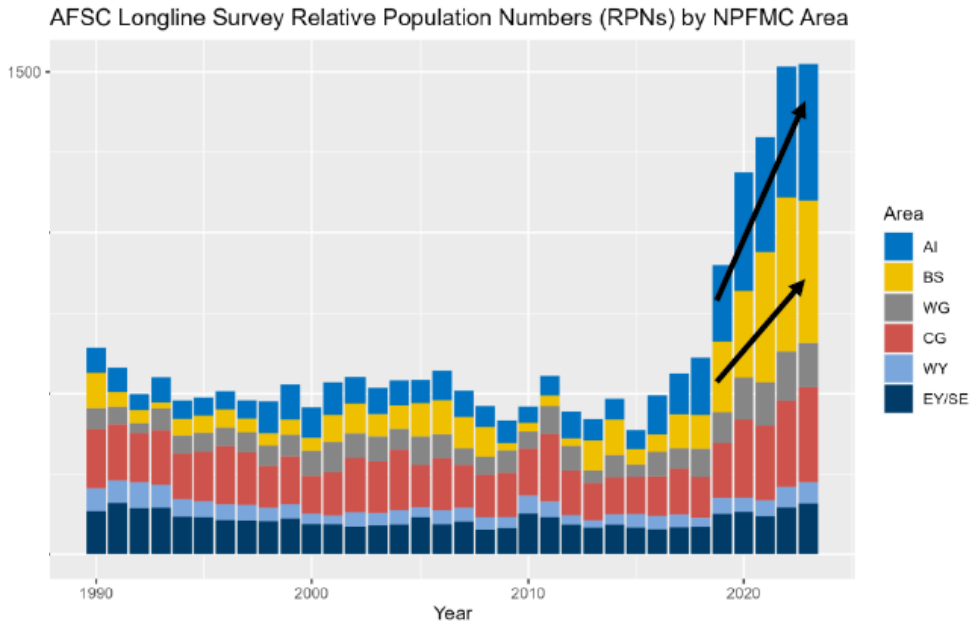
Sablefish OFL and ABCs

- **2025 ABC = 50,111 t**
  - +3 kt more than 2024
  - ~40,000t increase in 8 years (2016 ABC was 11,795t)
  - ABC ~70% harvested in recent years
  - ~Half of 2024 ABC will be caught

Apportionment

- Based on 5-year average of regional longline survey biomass proportions
  - Meant to address biological concerns (localized depletion) and avoid extreme fluctuations in regional quotas
  - Updated yearly with new survey data (no new data for 2024)
- BSAI constitutes > 50% of survey biomass in 2023

Year	2024				2025		2026	
Region	OFL_w	ABC_w	TAC	Catch*	OFL_w	ABC_w**	OFL_w	ABC_w**
BS	--	11,450	7,996	3,940	--	13,898	--	13,723
AI	--	13,100	8,440	1,266	--	12,175	--	12,022
GOA	--	22,596	22,596	13,406	--	24,038	--	23,737
WGOA	--	4,699	4,699	2,101	--	4,996	--	4,934
CGOA	--	9,651	9,651	5,655	--	10,257	--	10,128
**WYAK	--	2,926	2,926	2,172	--	3,125	--	3,086
**EY/SEO	--	5,320	5,320	3,478	--	5,660	--	5,589
Total	55,084	47,146	39,032	18,612	58,532	50,111	57,797	49,482



*As of October 10, 2024
**After 95:5 trawl split and whale depredation

Forage Fish

- Large, diverse group of >50 species
- State and federal management
- Motivation for forage group FMP: prevent fishing-related impacts to AK forage base
- Excluded: juv. walleye pollock, juv. Pacific cod, juv. salmon, krill

Thanks to Johanna Wollenweider

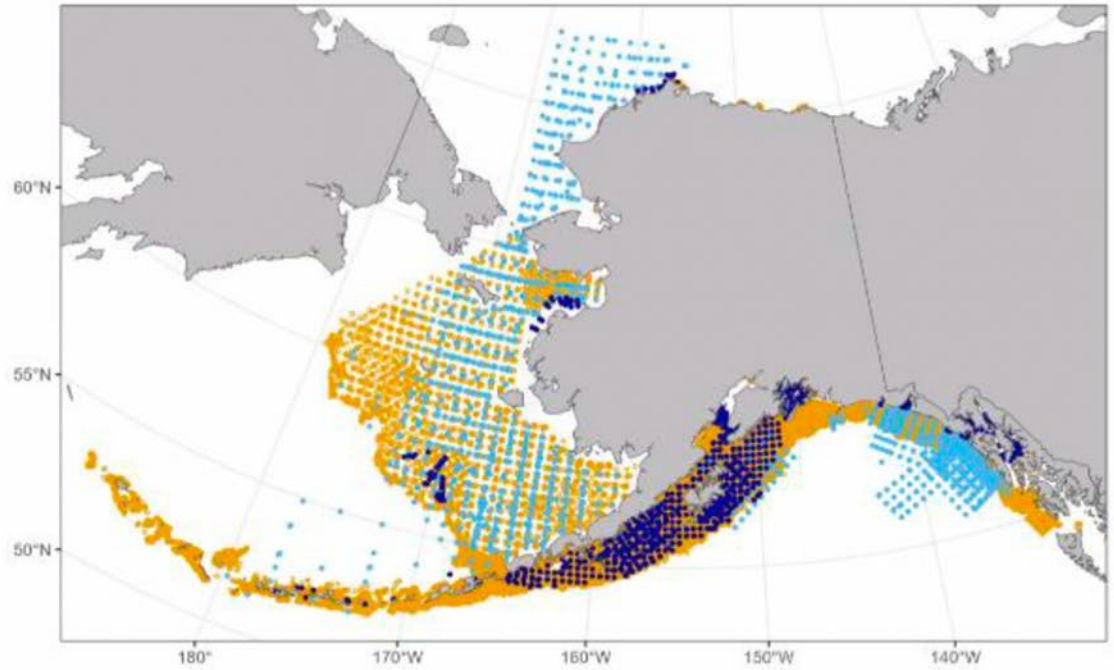
Scientific Name	Common Name
Mallotus villosus	capelin
Hypomesus pretiosus	surf smelt
Osmerus mordax	rainbow smelt
Thaleichthys pacificus	eulachon
Spirinchus thaleichthys	longfin smelt
Spirinchus starksi	night smelt
Protomyctophum thompsoni	bigeye lanternfish
Benthosema glaciale	glacier lanternfish
Tarletonbeania taylori	taillight lanternfish
Tarletonbeania crenularis	blue lanternfish
Diaphus theta	California headlightfish
Stenobrachius leucopsarus	northern lampfish
Stenobrachius nannochir	garnet lampfish
Lampanyctus jordani	brokenline lanternfish
Nannobrachium regale	pinpoint lampfish
Nannobrachium ritteri	broadfin lanternfish
Leuroglossus schmidti	northern smoothtongue
Lipolagus ochotensis	popeye blacksmelt
Pseudobathylagus milleri	stout blacksmelt
Bathylagus pacificus	slender blacksmelt
Ammodytes hexapterus	Arctic sand lance
Ammodytes personatus	Pacific sand lance
Trichodon trichodon	Pacific sandfish
Arctoscopus japonicus	sailfin sandfish
Apodichthys flavidus	penpoint gunnel
Rhodymenichthys dolichogaster	stippled gunnel
Pholis fasciata	banded gunnel
Pholis clemensi	longfin gunnel
Pholis laeta	crescent gunnel
Pholis schultzi	red gunnel
Eumesogrammus praecisus	fourline snakeblenny
Stichaeus punctatus	arctic shanny
Gymnoclinus cristulatus	trident prickleback
Chirolophis tarsodes	matcheek warbonnet
Chirolophis nugatory	mosshead warbonnet
Chirolophis decoratus	decorated warbonnet
Chirolophis snyderi	bearded warbonnet
Bryozoichthys lysimus	nutcracker prickleback
Bryozoichthys majorius	pearly prickleback
Lumpenella longirostris	longsnout prickleback

Scientific Name	Common Name
Poroclinus rothrocki	whitebarred prickleback
Anisarchus medius	stout eelblenny
Lumpenus fabricii	slender eelblenny
Lumpenus sagitta	snake prickleback
Acantholumpenus mackayi	blackline prickleback
Opisthocentrus ocellatus	ocellated blenny
Alectridium aurantiacum	lesser prickleback
Alectrias alectrolophus	stone cockscomb
Anoplarchus purpurescens	high cockscomb
Anoplarchus insignis	slender cockscomb
Phytichthys chirus	ribbon prickleback
Xiphister mucosus	rock prickleback
Xiphister atropurpureus	black prickleback
Sigmops gracilis	slender fangjaw
Cyclothone alba	white bristlemouth
Cyclothone signata	showy bristlemouth
Cyclothone atraria	black bristlemouth
Cyclothone pseudopallida	phantom bristlemouth
Cyclothone pallida	tan bristlemouth
Euphausia pacifica	krill

NOAA FISHERIES

Alaska Forage Fish Database

- Fisheries Surveys
  - Surface trawl
  - Midwater trawl
  - Bottom trawl
  - Nearshore sampling

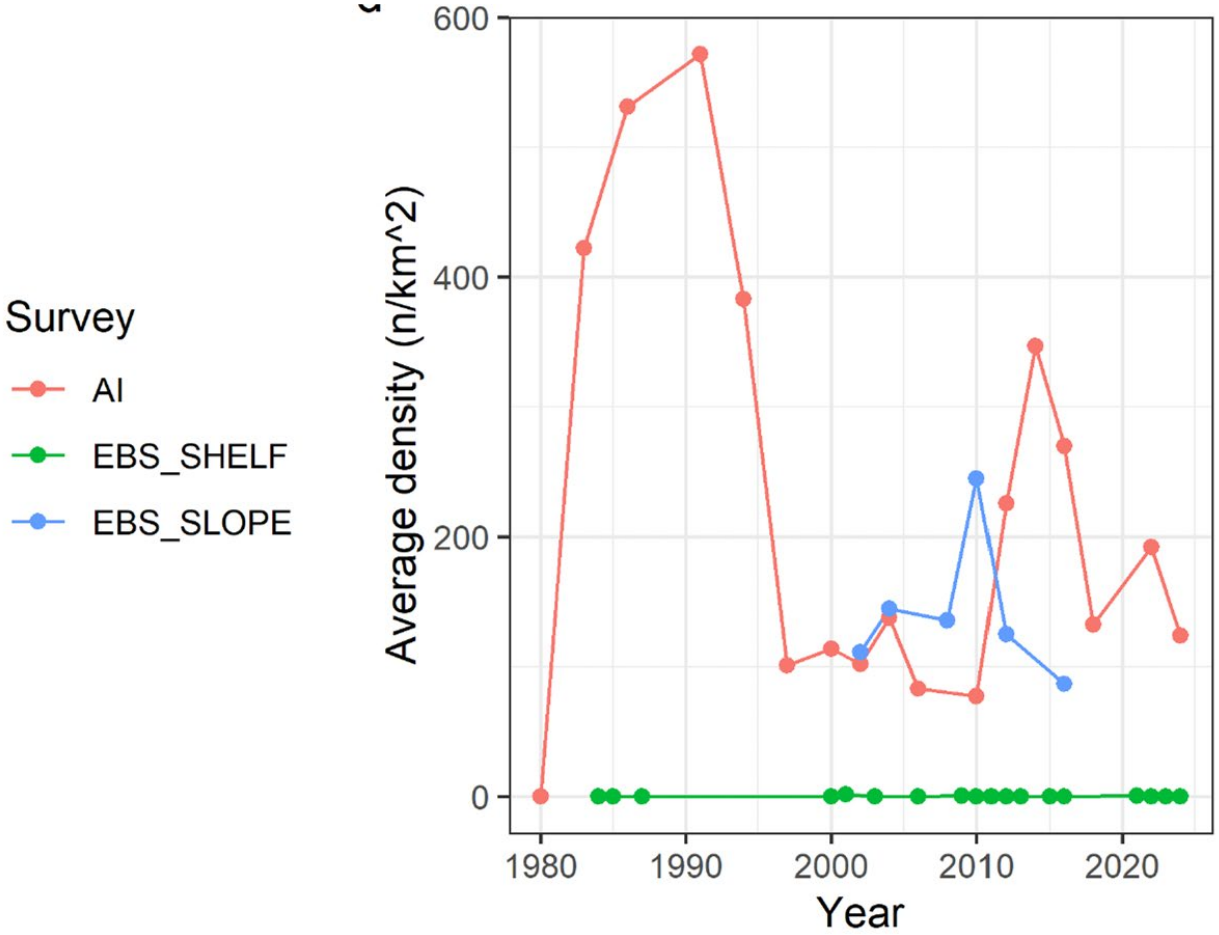


- Predator Diets
  - Groundfish (pollock, Pcod, ATF, halibut)
  - Seabirds (surface & divers)

- Forage Species:
  - Pacific capelin
  - Pacific herring
  - Sand lance

Forage fish squid example (BSAI)

BSAI survey density



BSAI incidental squid catch

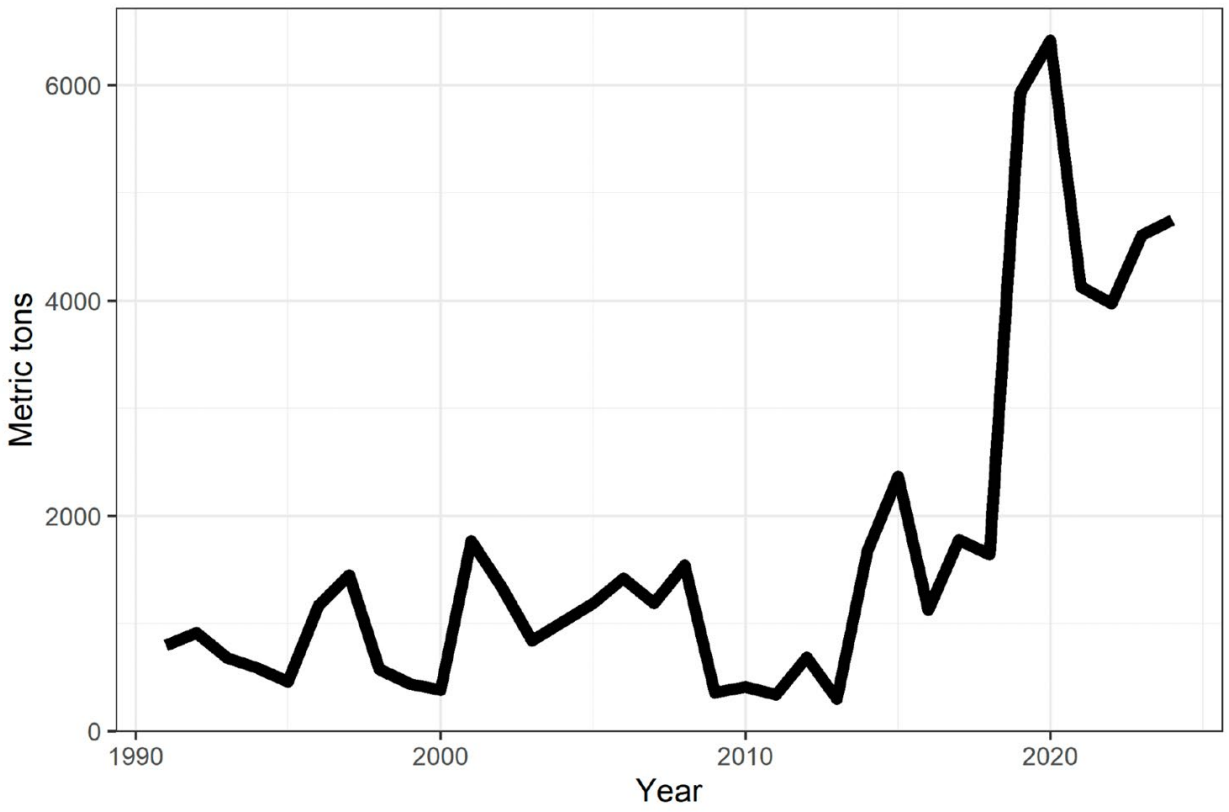
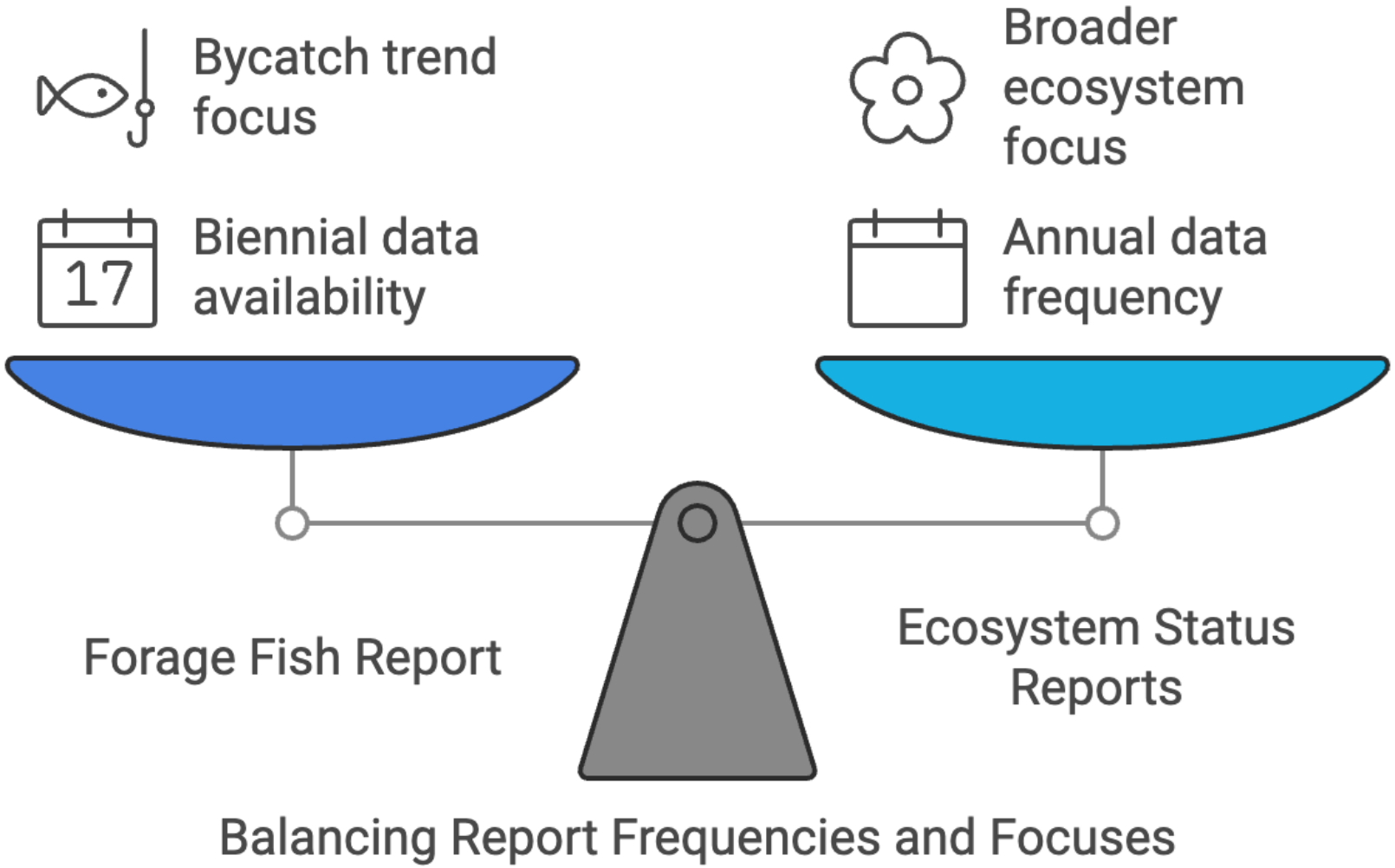
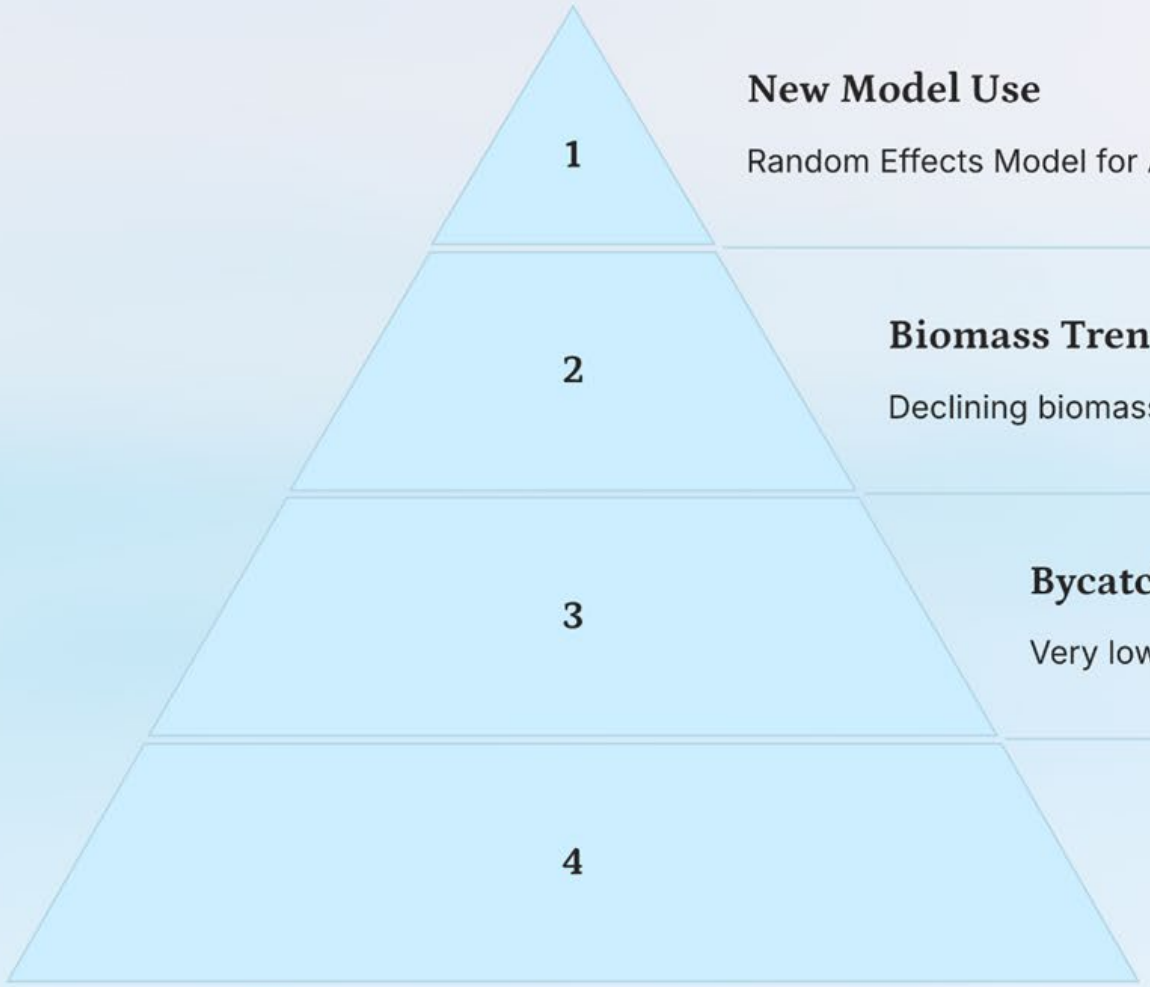


Figure 27: Incidental catches of squid in federal fisheries in the BSAI.

Forage fish Plan Team discussion



Grenadiers



New Model Use

Random Effects Model for Assessments (REMA) introduced for EBS and GOA.

Biomass Trends

Declining biomass and average size trajectories observed in all areas.

Bycatch Levels

Very low bycatch reported for grenadiers.

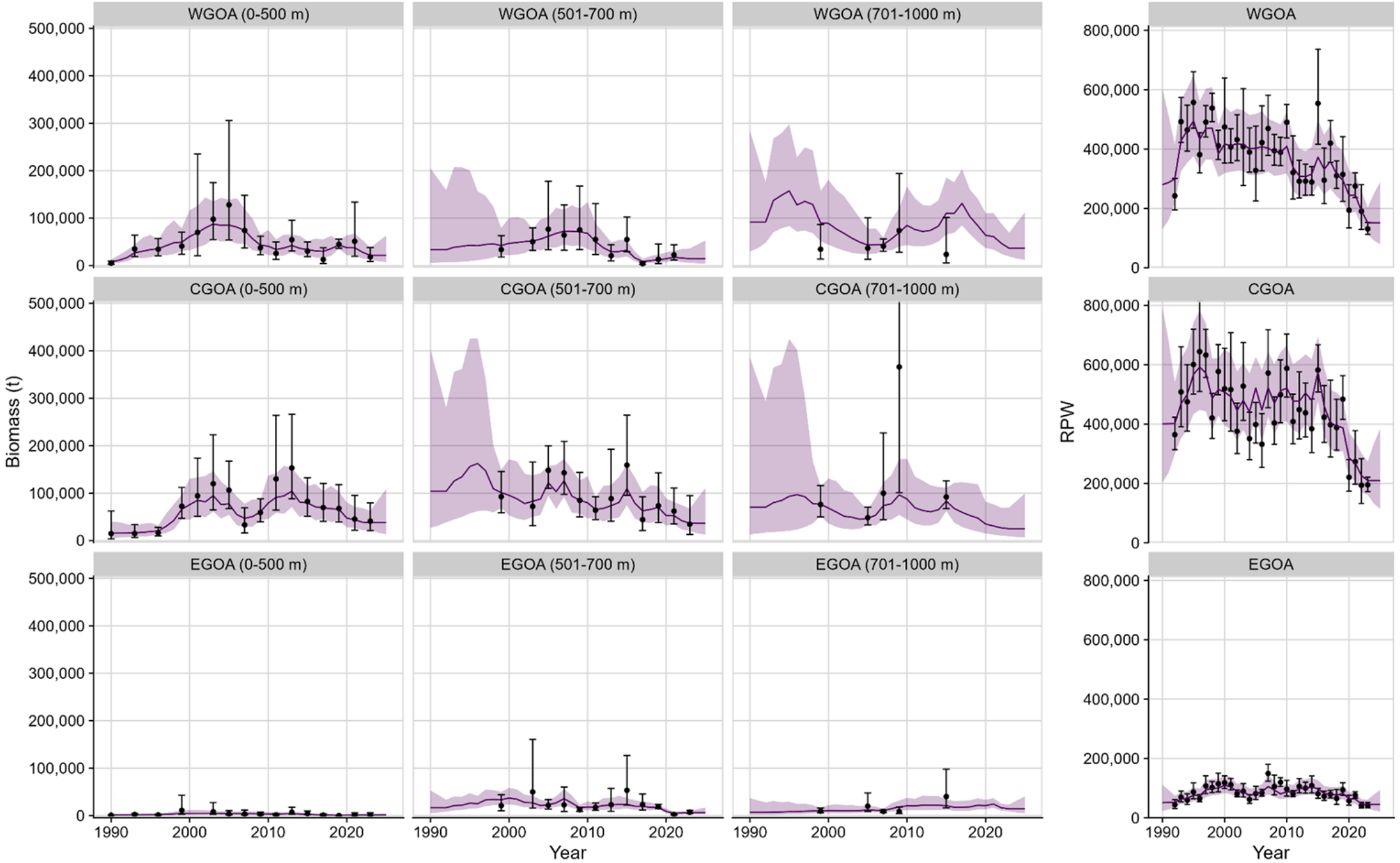
Data Limitations

Survey depth limitations impact understanding of overall population trends.

**Typo in Team report, most recent was 2020, not 2000*

GOA Grenadiers

Thanks to Kevin Siwicke



Grenadiers: PT Discussion

- Appropriately examined
  - Data sparse

- Lack of any conservation concern given current knowledge

Thank you to Plan Team members, assessment authors, all contributors