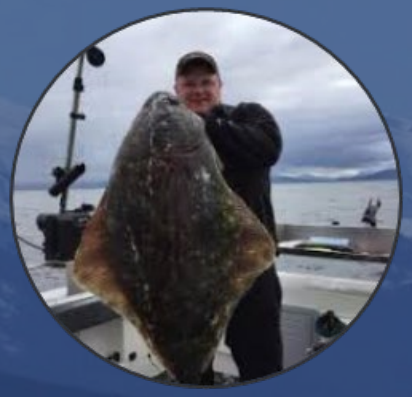
C3 Gulf of Alaska Groundfish September 2024 Plan Team Report

Jim Ianelli (AFSC), Chris Lunsford (AFSC), Sara Cleaver (NPFMC)


October 2024

Presentation to NPFMC

NOAA FISHERIES

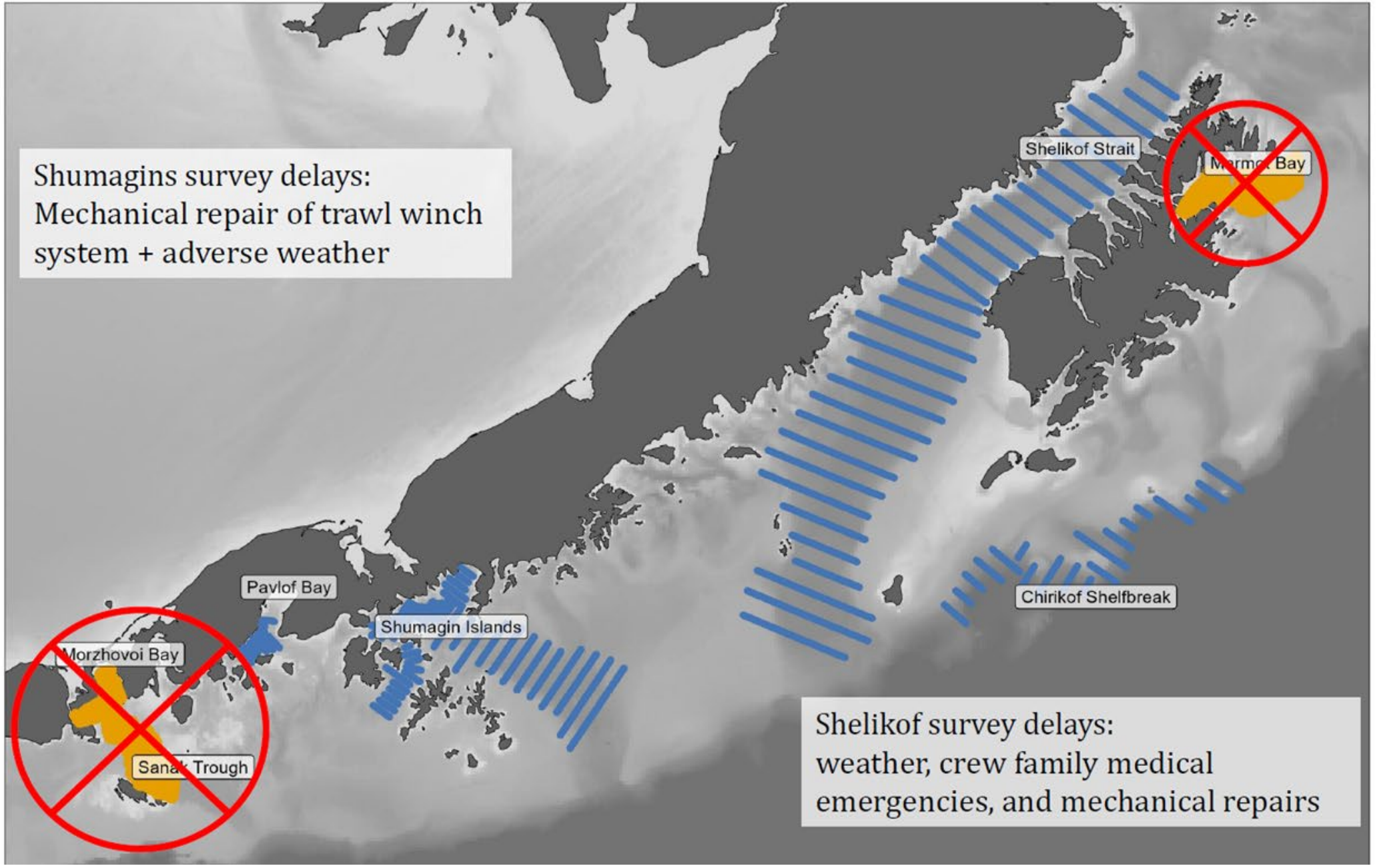
GOA Presentation Summary

Topic	Presenter at Plan Team	Type	Recommendations
Winter Acoustic Survey	Mike Levine	Survey Update	No
GOA Pollock	Cole Monnahan	Full Model	Yes
GOA Pacific Cod	Pete Hulson	Full Model	Yes
Dusky and Northern Rockfish	Kristen Omori, Ben Williams	Full Model	Yes
Thornyhead Rockfish	Kevin Siwicke	Full Model	Yes
GOA DSR	Phil Joy, Jan Rumble	CIE Response, Model, Updates	Yes
Arrowtooth Model Bridging	Kalei Shotwell, Grant Adams	Research model	Yes
FY25 Acoustic Survey Planning	Lyle Britt	Survey planning	No
Harvest Projections	Chris Lunsford	Harvest projection final review	Yes
GOA Rockfish Spatial Management	Sara Cleaver	Discussion paper	No
Proposed Specifications (including DMRs)	Abby Jahn	Proposed specs	Yes

Assessment Type	GOA Stocks for 2024
Operational **Full**	Pollock Pacific cod Thornyhead rockfish Dusky rockfish Northern rockfish
Operational **Update**	Sablefish DSR Other rockfish
Harvest Projections **(review in Sept/Oct)**	GOA flathead sole GOA POP GOA rougheye/blackspotted rockfish (RE/BS) GOA rock sole GOA shallow-water flatfish (SWF) GOA rex sole GOA deepwater flatfish GOA arrowtooth flounder (ATF)
Catch Reports	Skates Shortraker rockfish Atka mackerel Octopus Sharks
Other	Forage fish & squid (eco report) Grenadiers (eco report)

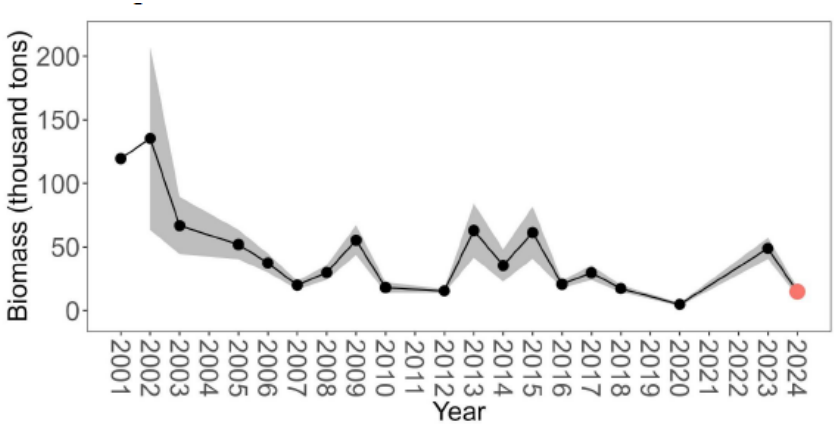
2024 winter GOA AT survey plan

Thanks to Mike Levine

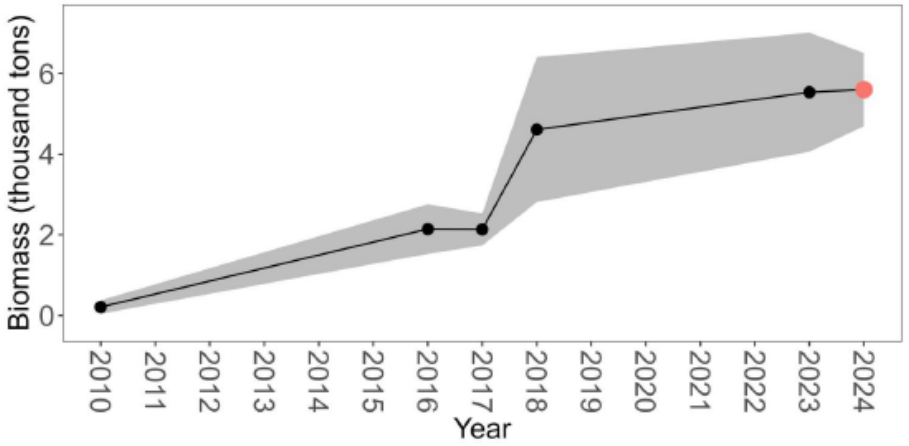


2024 Winter Acoustic Survey: Biomass/Abundance

Shumagin



Pavlov Bay



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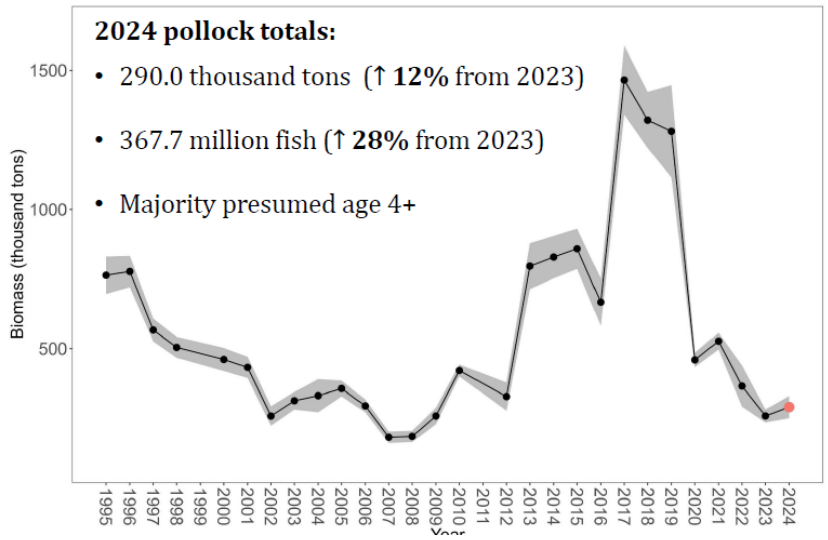
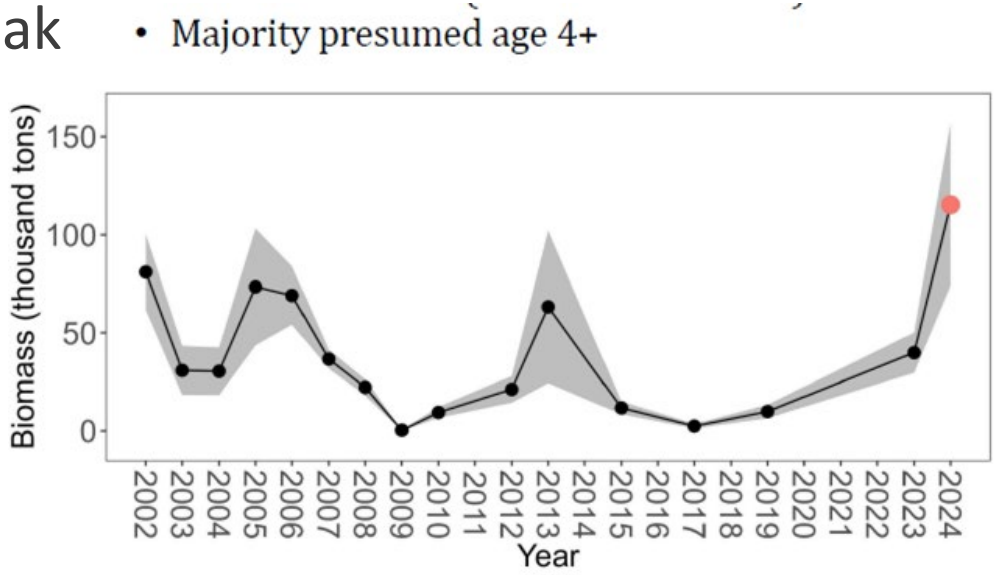


Chirikof shelfbreak



Thanks to Mike Levine

FY25 Summer Acoustic Survey Planning

Dr. Lyle Britt
AFSC-RACE Division Director

Survey Reduction Proposal

Discontinue the Biennial MACE GOA Acoustic-Trawl Summer Survey (odd years)

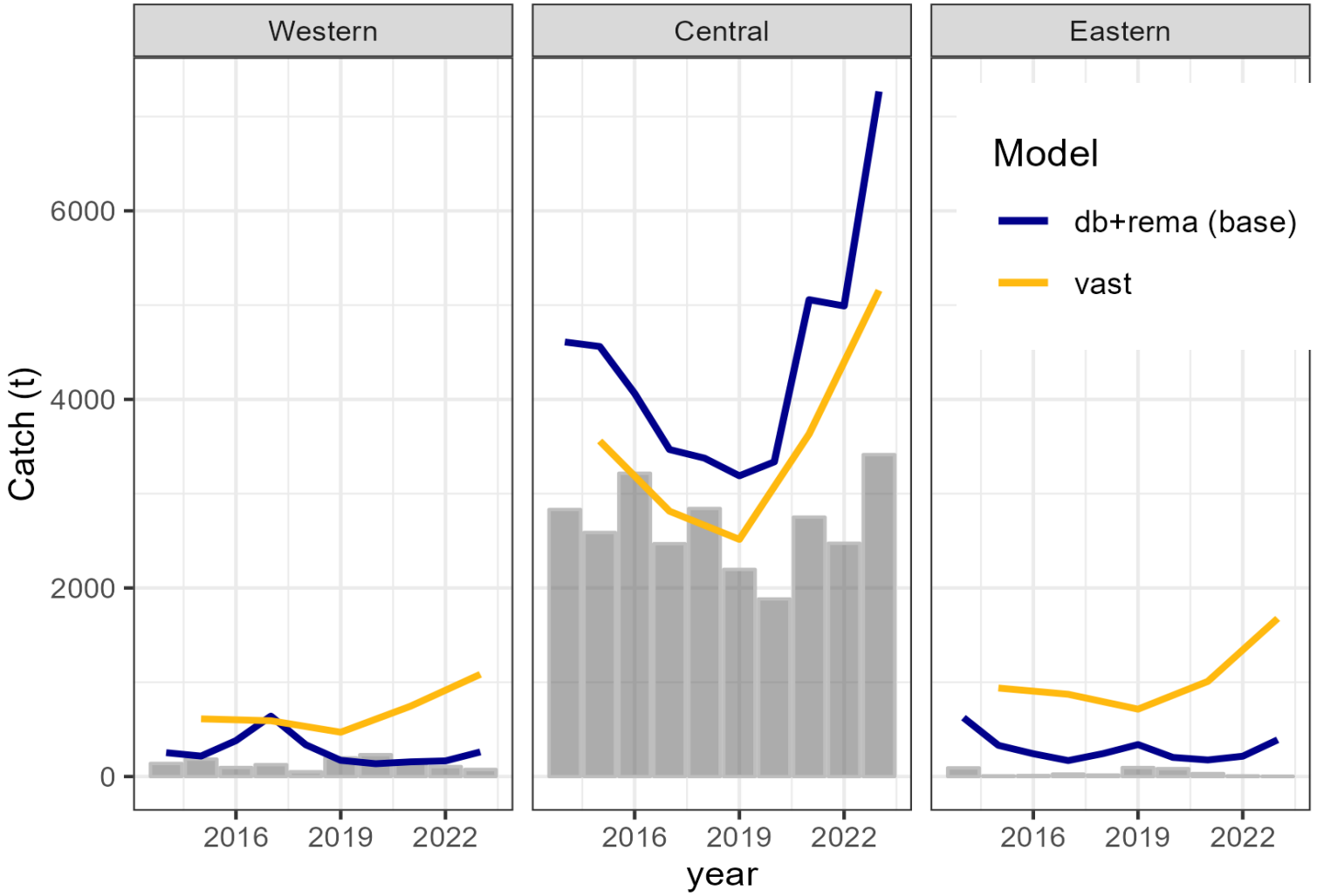
Pros

- Secure and fortify vessel days for GOA Winter Acoustic-Trawl surveys
- Better align survey portfolio with staffing capacity
- Free up NOAA Ship days for emergent survey/research needs

Cons

- Halt of a developing time series
- Reduced summer walleye pollock data. Could impact apportionment
- Loss of other ecosystem data/indicators (forage fish index, euphausiid index, etc)

Apportionment- Dusky rockfish historical projection of allocated ABC



- Design-based+REMA (base) proportions generally led to higher allocated ABC in CGOA, lower in WGOA & EGOA compared to VAST method
- Based on historical projections, catch would not surpass the alternative projected apportioned ABC (with one exception), but catch remains significantly under GOA-wide ABC
- Note: EGOA further subdivides the EGOA allocated ABC into West Yakutat and Southeast

Apportionment- Dusky rockfish percentage

Year	Area	db+rema (base)	vast
2021	Western	2.9	13.8
2021	Central	93.9	67.4
2021	Eastern	3.3	18.7
2022	Western	3.1	-
2022	Central	92.9	-
2022	Eastern	4.0	-
2023	Western	3.3	13.7
2023	Central	91.8	65.1
2023	Eastern	4.9	21.2

Apportionment- Northern rockfish percentage

Year	Area	db+rema (base)	vast
2021	Western	44.6	46.0
2021	Central	55.4	54.0
2022	Western	26.7	-
2022	Central	73.2	-
2023	Western	14.2	48.1
2023	Central	85.7	51.9

GOA Harvest Projections NEW: Reviewed in Sept instead of November meeting

- GOA flathead sole- Maia Kapur
- GOA POP- Ben Williams, Maia Kapur
- GOA RE/BS rockfish- Jane Sullivan
- GOA rock sole- Meaghan Bryan
- GOA shallow-water flatfish (SWF)- Meaghan Bryan
- GOA rex sole- Carey McGilliard
- GOA deepwater flatfish- Carey McGilliard
- GOA arrowtooth flounder (ATF)- Kalei Shotwell

The Team recommended:

- **Authors' OFLs and ABCs as shown in the documents**
- **Evaluation of variability and consequences in extrapolating catches from late August forward**
- **HP documents and slides include subarea apportionments for GOA stocks and clarify that apportionment proportions are rolled over from last full assessment**

Thanks to Chris Lunsford (presentation) & authors

GOA Halibut Discard Mortality Rates (DMRs)

Table 12. Proposed 2025 and 2026 Halibut Discard Mortality Rates for Vessels Fishing in the Gulf of Alaska. (Values are in percent of halibut assumed to be dead.)

Gear	Sector	Groundfish fishery	Halibut discard mortality rate (percent)
Pelagic trawl	Catcher vessel	All	100
	Catcher/processor	All	100
Non-pelagic trawl	Catcher vessel	Rockfish Program	56
	Catcher vessel	All others	74
	Mothership and catcher/processor	All	76
Hook-and-line	Catcher/processor	All	10
	Catcher vessel	All	19
Pot	Catcher vessel and catcher/processor	All	32

Thanks to Michael Fey (AKFIN) and other Halibut DMR Working Group members: Jen Cahalan (PSMFC), Jennifer Ferdinand (NMFS AFSC), Krista Melani (NMFS AKRO), Jason Gasper (NMFS AKRO), Ian Stewart (IPHC)

GOA Groundfish Proposed Harvest Specifications- PT Recs Table 1 (1 of 2)

Table 1. Plan Team proposed recommended OFL and ABC for Groundfish in the Gulf of Alaska (metric tons) for 2025 and 2026

Species	Area	2023 OFL	2023 ABC	2023 TAC	Catch 9/14/2023	2024 OFL	2024 ABC	2024 TAC	Catch 9/16/2024	Plan Team Proposed 2025/26 OFL	Plan Team Proposed 2025/26 ABC
Pollock	State GHL	n/a	3,723	n/a	3,261	n/a	4,769		3,640	n/a	3,942
	W (610)	n/a	26,958	26,958	6,033	n/a	38,882	38,882	14,598	n/a	32,144
	C (620)	n/a	77,005	77,005	58,327	n/a	90,937	90,937	69,272	n/a	75,179
	C (630)	n/a	33,729	33,729	13,052	n/a	50,587	50,587	16,296	n/a	41,821
	WYAK	n/a	7,523	7,523	6,888	n/a	5,565	5,565	1,382	n/a	4,601
	Subtotal	173,470	148,938	145,215	84,300	269,916	190,740	185,971	101,547	182,891	157,687
	SEO	15,150	11,363	11,363	1	12,998	9,749	9,749	-	12,998	9,749
	Total	188,620	160,301	156,578	84,300	282,914	200,489	195,720	101,547	195,889	167,436
Pacific Cod	W	n/a	7,464	5,225	3,233	n/a	8,745	6,121	3,289	n/a	7,638
	C	n/a	14,830	11,123	8,501	n/a	20,590	15,442	11,645	n/a	17,981
	E	n/a	2,340	1,755	510	n/a	2,937	2,203	150	n/a	2,565
	Total	29,737	24,634	18,103	12,245	38,712	32,272	23,766	15,085	33,970	28,184
Sablefish	W	n/a	4,473	4,473	2,313	n/a	4,699	4,699	1,943	n/a	4,719
	C	n/a	9,921	9,921	5,456	n/a	9,651	9,651	5,521	n/a	9,693
	WYAK	n/a	3,205	3,205	2,043	n/a	2,926	2,926	2,116	n/a	2,940
	SEO	n/a	5,602	5,602	3,596	n/a	5,320	5,320	3,358	n/a	5,343
	GOA Total	n/a		23,201	13,409	n/a	n/a	22,596	12,938	n/a	
Alaska-wide OFL and ABC	AK Total	47,390	40,502	n/a		55,084	47,146	n/a		55,317	47,350
Shallow-Water Flatfish	W	n/a	22,485	13,250	33	n/a	23,337	13,250	61	n/a	23,782
	C	n/a	26,769	26,769	589	n/a	27,783	27,783	2,448	n/a	28,311
	WYAK	n/a	2,677	2,677	6	n/a	2,778	2,778	1	n/a	2,831
	SEO	n/a	1,606	1,606	1	n/a	1,667	1,667	1	n/a	1,699
	Total	65,736	53,537	44,302	630	68,121	55,565	45,478	2,510	69,354	56,623
Deep-Water Flatfish	W	n/a	256	256	11	n/a	237	237	8	n/a	234
	C	n/a	2,105	2,105	68	n/a	2,655	2,655	58	n/a	2,614
	WYAK	n/a	1,407	1,407	3	n/a	1,856	1,856	3	n/a	1,827
	SEO	n/a	2,048	2,048	2	n/a	2,314	2,314	2	n/a	2,278
	Total	6,918	5,816	5,816	84	8,387	7,062	7,062	71	8,257	6,953
Rex Sole	W	n/a	3,236	3,236	21	n/a	3,367	3,367	21	n/a	3,363
	C	n/a	13,110	13,110	355	n/a	13,639	13,639	366	n/a	13,624
	WYAK	n/a	1,439	1,439	-	n/a	1,453	1,453	1	n/a	1,439
	SEO	n/a	2,879	2,879	-	n/a	2,905	2,905	-	n/a	2,877
	Total	25,135	20,664	20,664	376	25,978	21,364	21,364	388	25,900	21,303
Arrowtooth Flounder	W	n/a	30,469	14,500	133	n/a	30,409	14,500	177	n/a	30,323
	C	n/a	65,000	65,000	8,102	n/a	64,871	64,871	12,283	n/a	64,688
	WYAK	n/a	7,886	7,886	28	n/a	7,870	7,870	27	n/a	7,848
	SEO	n/a	16,130	6,900	25	n/a	16,099	6,900	20	n/a	16,053
	Total	142,749	119,485	94,286	8,287	142,485	119,249	94,141	12,507	142,074	118,912

GOA Groundfish Proposed Harvest Specifications- PT Recs Table 1 (1 of 2)

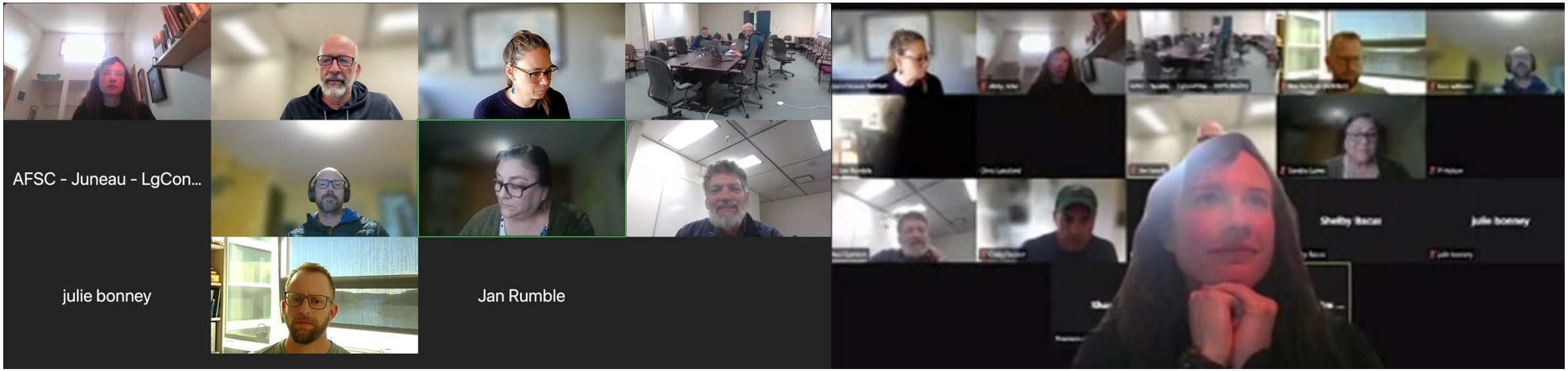
Flathead Sole	W	n/a	12,793	8,650	12	n/a	13,273	8,650	89	n/a	13,521
	C	n/a	21,487	21,487	364	n/a	21,307	21,307	606	n/a	21,702
	WYAK	n/a	2,320	2,320	-	n/a	3,876	3,876	0	n/a	3,949
	SEO	n/a	2,880	2,880	-	n/a	2,047	2,047	0	n/a	2,086
	Total	48,161	39,480	35,337	376	49,414	40,503	35,880	695	50,322	41,258
Pacific ocean perch	W	n/a	2,529	2,529	2,312	n/a	1,787	1,787	1,571	n/a	1,726
	C	n/a	29,940	29,940	23,288	n/a	28,757	28,757	18,177	n/a	27,768
	WYAK	n/a	1,370	1,370	1,366	n/a	2,110	2,110	1,946	n/a	2,038
	W/C/WYAK	40,308	33,839	33,839	26,967	n/a	n/a	n/a	n/a	n/a	n/a
	SEO	3,994	3,354	3,354	-	n/a	7,065	7,065	-	n/a	6,822
	Total	44,302	37,193	37,193	26,967	47,466	39,719	39,719	21,694	45,835	38,354
Northern Rockfish	W	n/a	2,614	2,614	360	n/a	2,535	2,535	314	n/a	2,446
	C	n/a	2,350	2,350	934	n/a	2,280	2,280	815	n/a	2,200
	E	n/a	-	-	-	n/a		-		n/a	0
	Total	5,927	4,964	4,964	1,295	5,750	4,815	4,815	1,129	5,548	4,646
Shortraker Rockfish	W	n/a	51	51	6	n/a	34	34	15	n/a	34
	C	n/a	280	280	133	n/a	189	189	121	n/a	189
	E	n/a	374	374	186	n/a	424	424	185	n/a	424
	Total	940	705	705	325	863	647	647	320	863	647
Dusky Rockfish	W	n/a	149	149	56	n/a	145	145	66	n/a	137
	C	n/a	7,647	7,647	3,376	n/a	7,365	7,365	2,099	n/a	6,979
	WYAK	n/a	90	90	1	n/a	84	84	5	n/a	81
	SEO	n/a	31	31	-	n/a	30	30	-	n/a	28
	Total	9,638	7,917	7,917	3,433	9,281	7,624	7,624	2,170	8,796	7,225
Rougheye and Blackspotted Rockfish	W	n/a	180	180	101	n/a	197	197	49	n/a	198
	C	n/a	232	232	133	n/a	315	315	116	n/a	317
	E	n/a	363	363	148	n/a	525	525	88	n/a	526
	Total	930	775	775	381	1,555	1,037	1,037	253	1,566	1,041
Demersal shelf rockfish	Total	376	283	283	197	376	283	283	144	376	283
Thornyhead Rockfish	W	n/a	314	314	49	n/a	314	314	33	n/a	314
	C	n/a	693	693	87	n/a	693	693	62	n/a	693
	E	n/a	621	621	44	n/a	621	621	60	n/a	621
	Total	2,170	1,628	1,628	179	2,170	1,628	1,628	155	2,170	1,628
Other Rockfish	W/C/WYK combined (starting in 2024)	n/a	940	940	868	n/a	1,353	1,353	454	n/a	1,353
	WYAK	n/a	370	370	46	n/a				n/a	n/a
	SEO	n/a	2,744	300	24	n/a	2,421	300	26	n/a	2,421
	Total	5,320	4,054	1,610	938	4,977	3,774	1,653	480	4,977	3,774
Atka mackerel	Total	6,200	4,700	3,000	435	6,200	4,700	4,700	380	6,200	4,700
Big Skate	W	n/a	591	591	47	n/a	745	745	97	n/a	745
	C	n/a	1,482	1,482	619	n/a	1,749	1,749	613	n/a	1,749
	E	n/a	794	794	117	n/a	341	341	72	n/a	341
	Total	3,822	2,867	2,867	783	3,780	2,835	2,835	782	3,780	2,835
Longnose Skate	W	n/a	151	151	58	n/a	104	104	22	n/a	104
	C	n/a	2,044	2,044	405	n/a	1,894	1,894	422	n/a	1,894
	E	n/a	517	517	605	n/a	538	538	160	n/a	538
	Total	3,616	2,712	2,712	1,068	3,380	2,536	2,536	604	3,380	2,536
Other Skates	GOA-wide	1,311	984	984	318	887	665	665	437	887	665
Sharks	GOA-wide	6,521	4,891	4,891	1,344	6,521	4,891	4,891	842	6,521	4,891
Octopuses	GOA-wide	1,307	980	980	139	1,307	980	980	127	1,307	980
TOTAL		**646,826**	**539,072**	**468,796**	**157,510**	**765,608**	**599,784**	**520,020**	**175,259**	**673,289**	**562,224**

Source: 2023 and 2024 Final GOA Harvest Specifications; 2024 and 2025 Final GOA Harvest Specifications; Catch Accounting System

COUNCIL ACTION
GOA Groundfish Proposed 2025/2026 Harvest Specifications

1) Review Plan Team report
2) Recommend GOA groundfish proposed harvest limits (OFL/ABC/TAC) - Table 1
    a) Account for state water fisheries: Pacific cod TAC adjustment (Table 2), pollock in Table 1
    b) Prohibited species catch limit apportionments (Tables 9-11)
    c) Halibut discard mortality rates (Table 12)

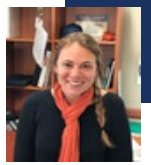
Thanks to … GOA GFPT and Presenters



C3 GOA Rockfish Stock Structure & Spatial Management

Sara Cleaver, NPFMC

October 2024



Council Motion

December 2023: Requested brief discussion paper on:

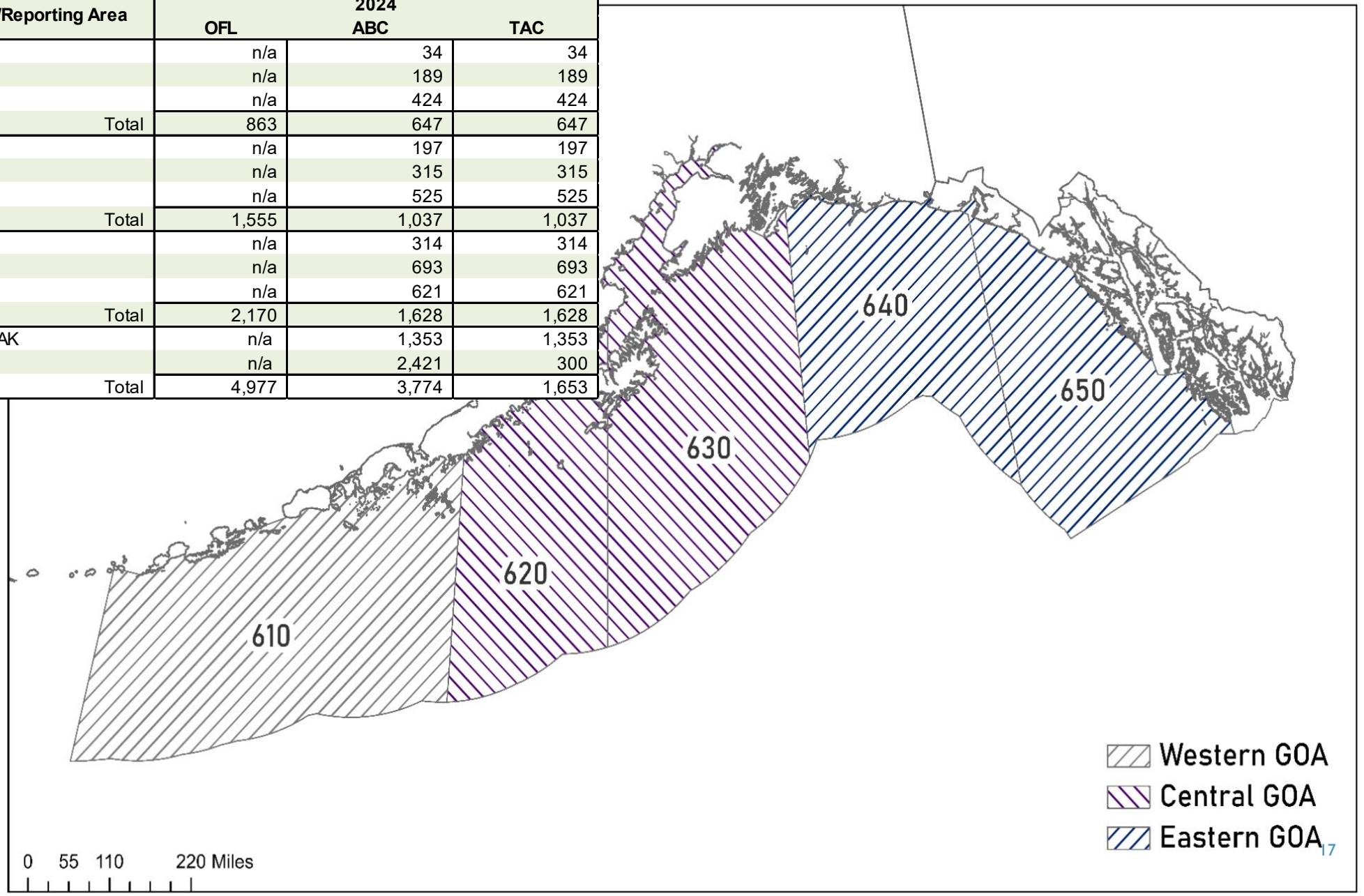
1) *the stock structure status for Gulf of Alaska shortraker rockfish, rougheye and blackspotted rockfish, and thornyhead rockfish and the current ABC spatial management level; and*

2) *management or fishery implications resulting from alternative spatial allocations of ABC (i.e, if there are no conservation concerns, what combinations of subareas are necessary to reduce or avoid fishery management implications).*

The Council also noted that the Other Rockfish stock complex could be included in the paper if staff indicated it would be appropriate.

Species/Stock	Subarea/Reporting Area	2024 OFL	2024 ABC	2024 TAC
Shortraker Rockfish	W	n/a	34	34
	C	n/a	189	189
	E	n/a	424	424
	Total	863	647	647
Rougheye and Blackspotted Rockfish	W	n/a	197	197
	C	n/a	315	315
	E	n/a	525	525
	Total	1,555	1,037	1,037
Thornyhead Rockfish	W	n/a	314	314
	C	n/a	693	693
	E	n/a	621	621
	Total	2,170	1,628	1,628
Other Rockfish	W/C/WYAK	n/a	1,353	1,353
	SEO	n/a	2,421	300
	Total	4,977	3,774	1,653

Map courtesy of Abby Jahn



Background: Shortraker, Thornyhead, RE/BS, Other Rockfish

- Slow growing, long lived species
- Lacking life history, behavior, movement information → +uncertainty
- Mainly retained as incidental catch, except CGOA Rockfish Program
- Highly variable survey biomass estimates across mgmt. areas
- Survey challenges- untrawlable habitat
- Changes to species groups over time→ narrower “boxes” for each stock or complex

CURRENT MANAGEMENT

If NMFS Inseason Management determines that an annual TAC will be reached in any subarea, they will place a species or species group on **'PSC status'** for that regulatory area

YEAR	SPECIES	AREA	PSC STATUS
2014	Thornyhead rockfish	W	11/13/2014
2016	Shortraker rockfish	W	9/19/2016
2016	Shortraker rockfish	C	9/19/2016
2017	Shortraker rockfish	W	10/16/2017
2018	Shortraker rockfish	C	11/9/2018
2021	Other rockfish	W/C	8/30/2021
2022	Shortraker rockfish	C	10/25/2022
2023	Other rockfish	W/C	11/13/2023

Stock Structure- Section 3 & Appendix 2

Shortraker rockfish (3.1)

- Most recent SS evaluation: 2016
- Regional size comp differences
- Gene flow: high (W. Larson)
- No finding of genetic stock structure

Thornyhead rockfish (3.3)

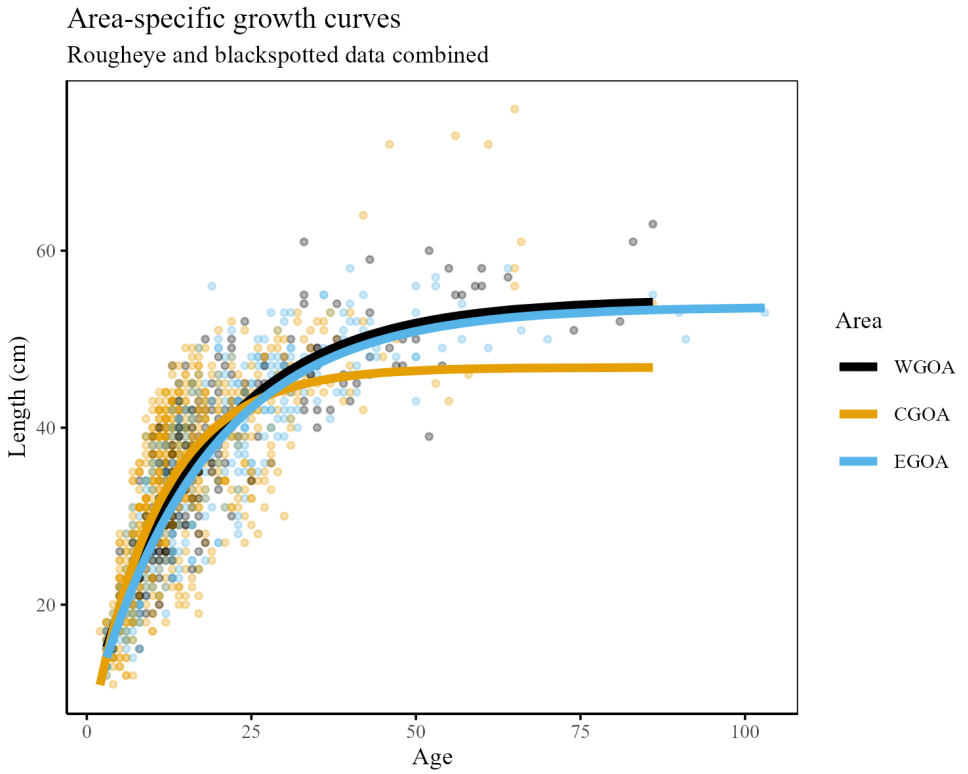
- Tagging data show little to no movement, but some (24% of tagged) moved across subareas
- No spatial structure observed in genetic markers (W. Larson)
- Gene flow: high
- No finding of genetic stock structure

Thank you to Katy Echave

Stock Structure- Section 3 & Appendix 2

Rougheye & blackspotted (3.2)

- Most recent SS eval: 2010 (based on data with both species combined)
- Differences in population trends, age, length, growth by area (still valid based on surveys)
- More recently, no genetic structure detected (W. Larson): High gene flow
- Suggested spatial structuring of the population
- Declining abundance and spawning stock biomass



Thank you to Jane Sullivan

Stock Structure- Section 3 & Appendix 2

Other Rockfish Stock Complex (3.4)

- Most recent SS eval: 2015
- Patchy distribution
- Spatial mismatch between the fishery and trawl survey data, particularly for harlequin
- Little information on behavior, site fidelity, movement
- No indication of area-specific stock structure in GOA, no genetics data
- Current apportionment (W/C/WY and SEO) likely appropriate

Thank you to Kristen Omori

Stock Structure Summary- Section 3 & Appendix 2

No evidence of *genetic* stock structure for:

- GOA shortraker rockfish
- GOA thornyhead rockfish
- GOA Other Rockfish

However, spatial structuring of RE/BS

Genetic Structure

- high gene flow observed in these rockfish likely due to long distance larval dispersal
- Localized depletion could cause reduced abundance because adult movement is likely low.

Fishery/Mgmt Implications:

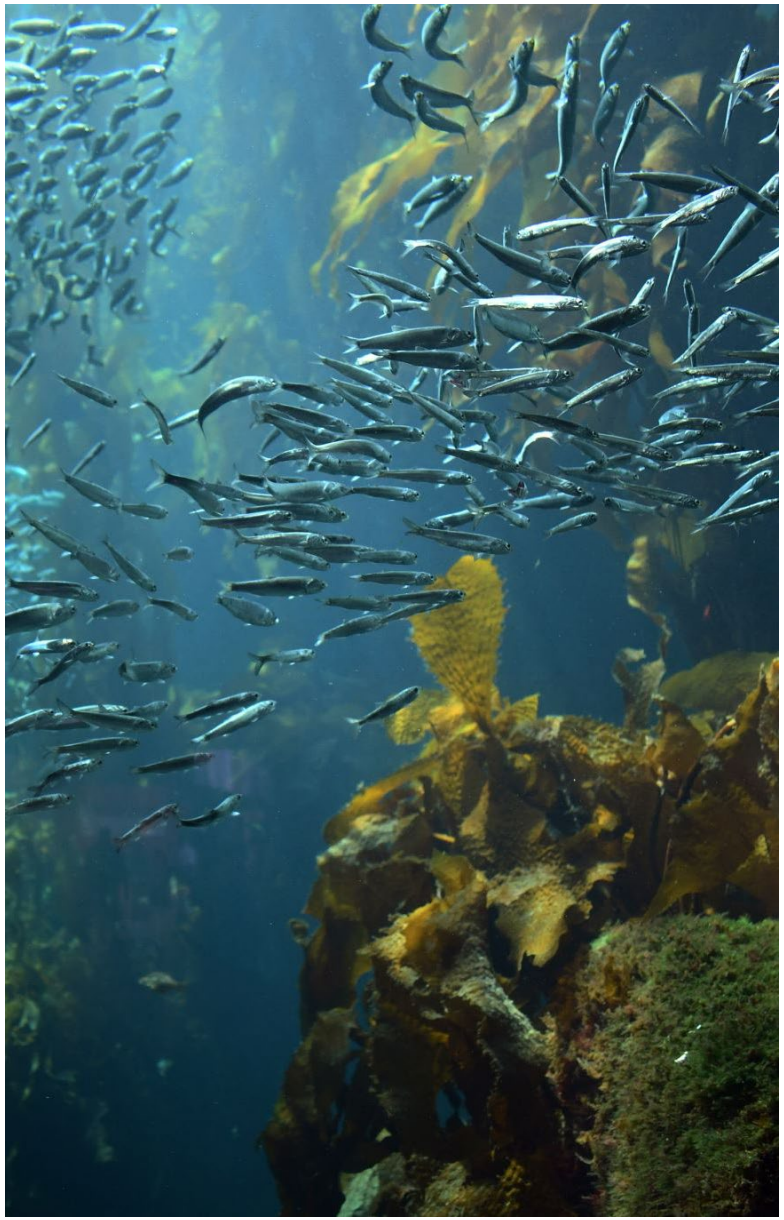
Considerations of Alternative Spatial Apportionments (Section 4)

- Shortraker: only stock that may be likely to face subarea TAC overages (at current levels) **and** which does not have evidence of stock structure
- **For shortraker, thornyhead, and RE/BS, any alternative combination of subareas involving CGOA would need to consider impacts to the Rockfish Program.**
- Impacts to voluntary trawl CP cooperatives in WY and WGOA would need to be considered

Table 2 **2024 Apportionments of shortraker rockfish, rougheye/blackspotted rockfish, and thornyhead rockfish to Rockfish Program CV and C/P cooperatives (rounded mt) in the CGOA.**

Rockfish secondary species	Central GOA annual TAC	CV Cooperatives	CP Cooperatives
Shortraker rockfish	189	0	76
Rougheye/blackspotted rockfish	315	0	185
Thornyhead rockfish	693	54	184

Table 28c to 50 CFR part 679—Allocation of Rockfish Secondary Species

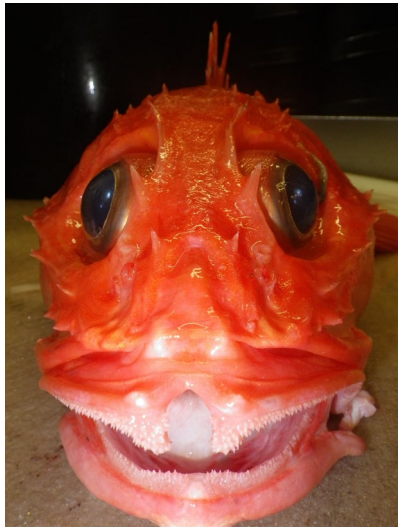


Section 5: Potential Next Steps

- *Maintain or change spatial apportionment of ABC for rockfish*
  - May need to: specify a TAC for the CGOA (Rockfish Program)
- *Potential clarification of apportionment process and Council harvest specification policies*
  - Spatial Mgmt. Policy, socioeconomic factors
- *Potential regulatory/FMP clean up*
  - **To provide clarity and limit confusion, it is recommended that the Council and NMFS no longer use the term (subarea)"ABC" to refer to subarea apportionments, but instead use a new term for these apportionments.**

Thank you:

Abby Jahn
Molly Watson
Katy Echave
Jane Sullivan
Kristen Omori
Steve Whitney
Krista Milani
Chris Lunsford
[Mary Furuness]



Groundfish Plan Team review

Sought feedback on:

- conclusions RE stock structure statuses
- Any biological reasons to divert from status quo (current apportionment/ subarea groupings)? Alternatively, biological reasons **for** current apportionment / subarea groupings?
- Additional considerations?

PT Report:

- Limited data available to make conclusions about spatial stock structure for these stocks.
- Limited data suggest a lack of genetic stock structure for some stocks, but important demographic stock differentiation may still exist.
- One of the biological reasons for apportionment of ABC into the GOA subareas was a precautionary measure to avoid localized depletion
- Role of PT/assessment authors remains unclear to the Team when it comes to evaluating apportionment if no biological basis for subarea ABC apportionment for these stocks.