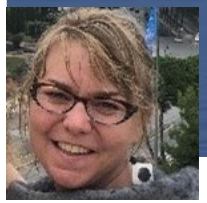
C5:

-BSAI & GOA Groundfish Plan Team Reports
-Proposed Harvest Specifications
-Spatial Management Policy Papers

October 2022

Dr. Diana Stram, BSAI Groundfish PT Coordinator (NPFMC)
Sara Cleaver, GOA Groundfish PT Coordinator (NPFMC)




GF Plan Team Meetings, September 19-23, 2022

- Hybrid: Traynor Room, Seattle, WA, see e-agenda for details
- Joint meeting, then GOA and BSAI

BSAI Team		GOA Team	
Steve Barbeaux	AFSC REFM (co-chair)	Jim Ianelli	AFSC REFM (co-chair)
Kalei Shotwell	AFSC REFM (co-chair)	Chris Lunsford	AFSC ABL (co-chair)
Cindy Tribuzio	AFSC ABL (vice-chair)	Sara Cleaver	NPFMC (coordinator)
Diana Stram	NPFMC (coordinator)	Kristan Blackhart	NMFS OS&T
Caitlin Allen Akselrud	AFSC RACE	Obren Davis	NMFS AKRO
Mary Furuness	NMFS AKRO	Craig Faunce	AFSC FMA
Allan Hicks	IPHC	Lisa Hillier	WDFW
Lisa Hillier	WDFW	Pete Hulson	AFSC ABL
Kirstin Holsman	AFSC REFM	Sandra Lowe	AFSC REFM
Phil Joy	ADF&G	Nat Nichols	ADF&G
Andy Kingham	AFSC FMA	Andrew Olson	ADF&G
Beth Matta	AFSC REFM	Jan Rumble	ADF&G
Andrew Seitz	UAF	Paul Spencer	AFSC REFM
Michael Smith	AFSC REFM	Marysia Szymkowiak	AFSC REFM
Jane Sullivan	AFSC ABL		

Thank you!

Joint Meeting Agenda Items (red = PT recommendation)

Topic	Model Change
Administrative & Council Updates	NA
Stock Prioritization*	NA
ESP Update	NA
ESR Climate Overview	NA
Forage Fish Congress	NA
RPA Update	NA
Fishing Effects on Essential Fish Habitat (EFH)	NA
AFSC Longline Survey	NA
Whale Depredation	NA
Sablefish CPUE Standardization	NA
Shark Stock Structure, Models	Minor
State-Space Models	NA
Tiers 4/5 Random Effects	Moderate
Economic SAFE	NA
Genomic Update Pollock/Cod	NA

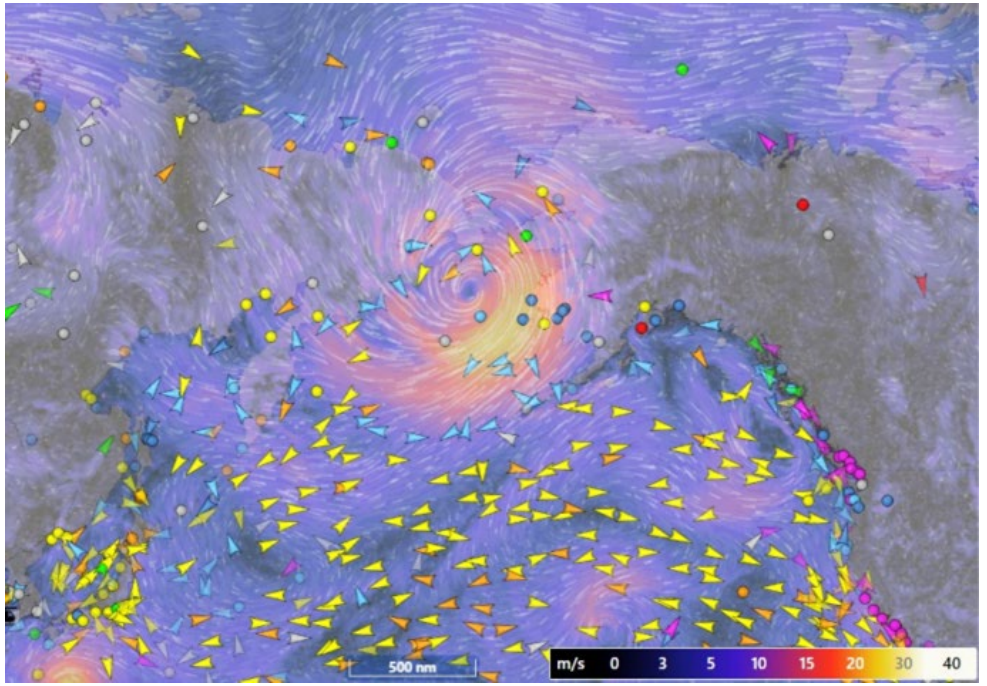
Links to presentations underlined

*being presented separately

ESP Update and ESR Climate Overview

- ESP:
  - 4 report cards for groundfish in 2022
  - National ESP programs are developing

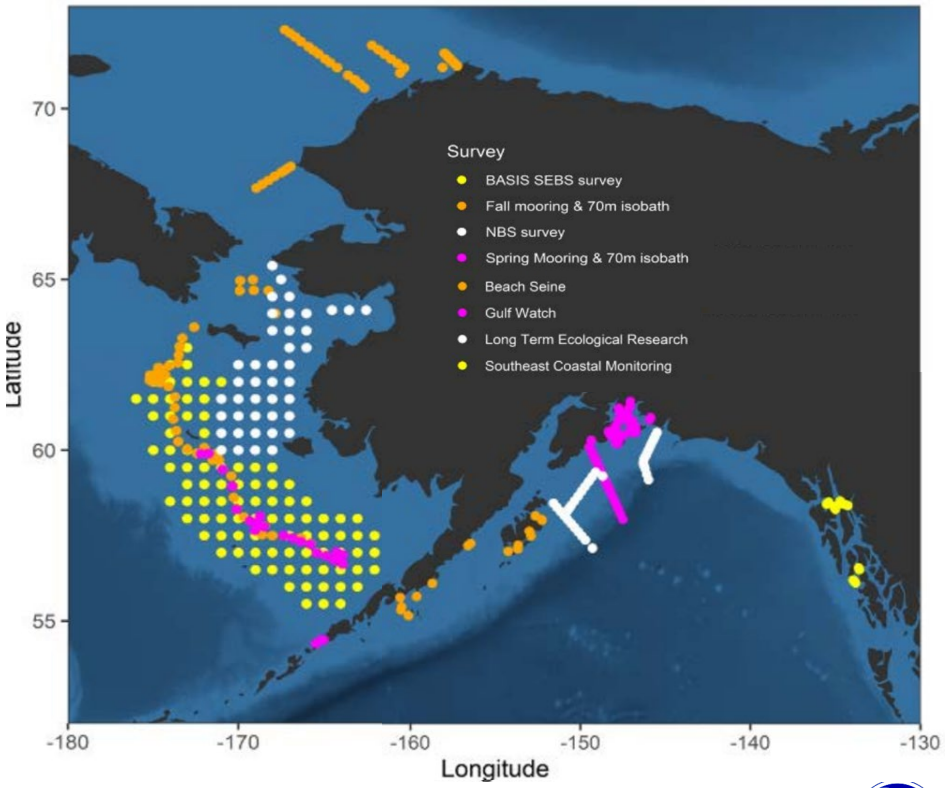
- ESR: climate overview by region
  - EBS - average SST, cold pool, low pH
  - AI - warming, increased transport
  - GOA - average SST, heatwave recovery
  - Sea surface temp forecasts provided



Thanks to Kalei Shotwell and Ivonne Ortiz

Survey overview

- EBS:
  - Warm year conditions, smaller copepods, increased euphausiids, large catch age-0 pollock, juvenile sockeye, forage fish
- GOA:
  - Cooler conditions, large copepods, more age-0 Pcod and pollock, 2022 sablefish more prevalent in seabird diets
- Longline survey in AI and GOA



Thanks to Rob Suryan and Kevin Siwicke

Forage Fish Congress

- 2022 Forage Fish Species Congress held earlier this year focused on the major scientific goals and knowledge gaps by region, and recommendations for future research priorities.

- **Joint Plan Team recommended that the forage fish workshop requested by the Council occur after the BSAI forage fish assessment in 2023 to better coincide with the assessment cycle.**

Thanks to Dave McGowan

Sharks

- Pacific Sleeper Shark stock structure update
  - Highly vulnerable to overfishing
  - **Recommend small changes to data collection (at-sea accounting) could substantially improve ability to assess**
- Assessment updates
  - Model updates for November
  - **Recommend combined document for BSAI and GOA for 2023**
  - Separate models configurations and specifications by BSAI and GOA
  - Efficiencies gained in combined document in background information and life history descriptions

Thanks to Cindy Tribuzio

Draft Economic SAFE

- Thank you, Ben Fissel!

- Poll: How do people involved in Council processes use the Economic SAFE report? Which items are most useful?

QUESTIONS?

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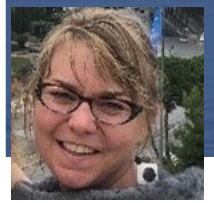
C5 BSAI Groundfish Plan Team Report & Proposed Harvest Specifications 2023-2024

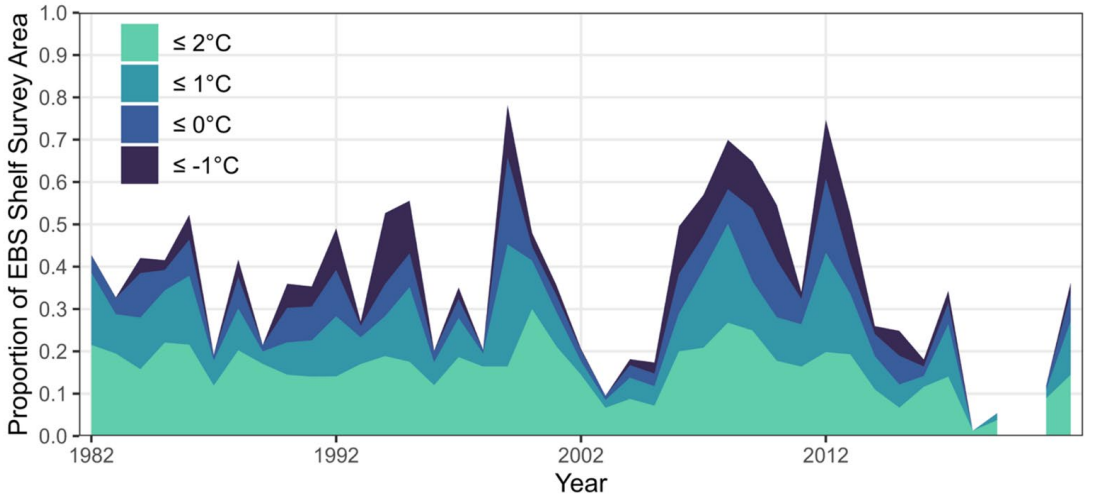
October 2022

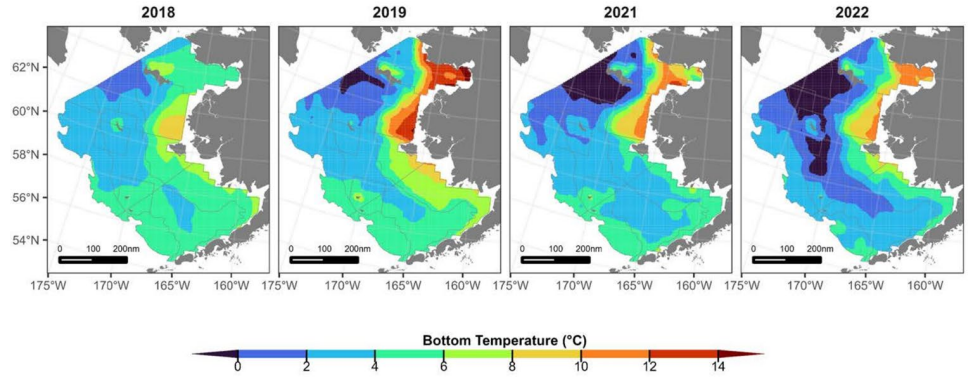
Dr. Diana Stram, BSAI Groundfish PT Coordinator



EBS Bottom Trawl Survey

- Highlights:
  - Survey temps show larger cold pool than recent years
  - Some fewer lengths sampled than last year's survey
  - Fish biomass generally up in EBS and down in NBS
  - Data available now for authors
  - Public data: FOSS, DisMAP

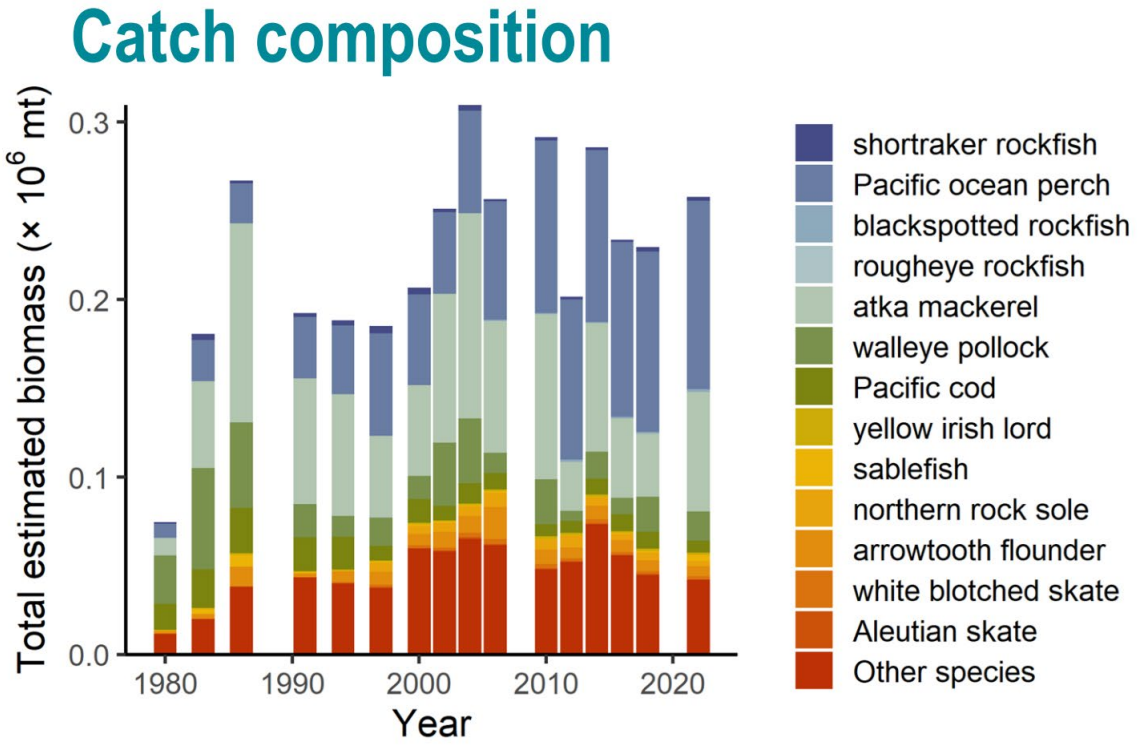




Thanks to Duane Stevenson

AI Bottom Trawl Survey

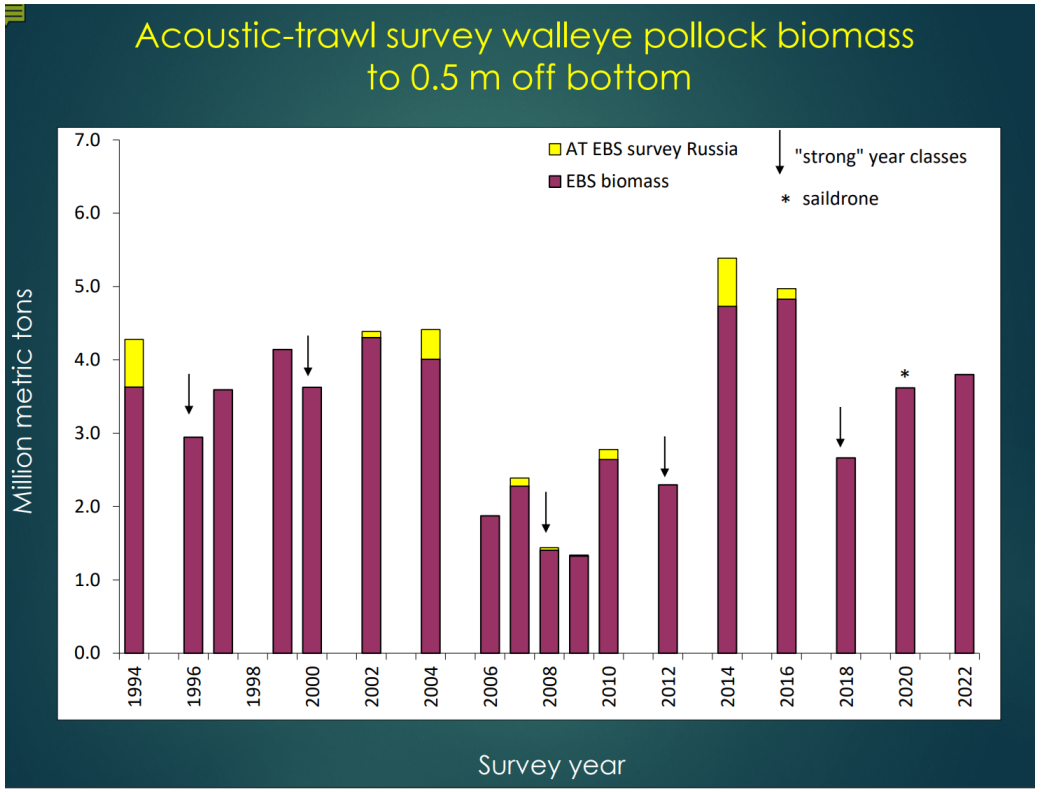
- Highlights:
  - Water temps remain above long term average
  - Biomass of 6 of 10 highlighted species increased
  - Data available now for authors
  - Lots of personnel changes, and growing collaboration with stock assessment authors



Thanks to Ned Laman

EBS Acoustic Trawl Survey

- Highlights:
  - 2022 haul transect, locations
  - Pollock biomass estimates, length/weight, distribution
  - Backscatter low in northern extension west 170°W
  - Annual AVO index for midwater pollock



Thanks to Sarah Stienessen

BSAI PT Agenda Items

Topic	Model Change
Bottom Trawl Surveys: EBS, AI	NA
EBS Pacific Cod	Minor
AI Pacific Cod	Moderate
Pacific Ocean Perch	Minor
Blackspotted/Rougheye Rockfish	No
Other Rockfish	Moderate
Shortraker Rockfish	Moderate
Greenland Turbot	Moderate
Yellowfin Sole	Moderate
EBS Acoustic Trawl Survey	NA
EBS Pollock	Minor
Proposed Harvest Specifications	NA
Halibut Discard Mortality Rates	NA

Links to presentations underlined

BSAI GF PROPOSED HARVEST SPECIFICATIONS & HALIBUT DMRS

- Proposed 2023/24 TACs (for proposed rulemaking) to notify public of Council action (on revised numbers from the 2022 November Plan Team) to set final harvest specs in December 2022. These TACS must also account for:
  - State waters P cod GHL in BS and AI
  - BS sablefish GHL
- Typically, these TACs are rolled over from the 2023 set in regulation which accommodate these set asides
- PSC limits (targets and apportionments) for red king crab, Tanner crab, snow crab, halibut, herring
- Flatfish flexibility (based on 2023/24 values)
- Updated DMRs
- Three River-index updated value and resulting Chinook PSC for 2023

Table 1. Plan Team Proposed recommended OFL, ABC for Groundfish in the Bering Sea/Aleutian Islands (metric tons) for 2023-2024 9/15/2022

Species	Area	2021 OFL	2021 ABC	2021 TAC	Catch as of 12/31/2021	2022 OFL	2022 ABC	2022 TAC	Catch as of 9/10/2022	Plan Team Proposed 2023/2024 OFL	Plan Team Proposed 2023/2024 ABC	Plan Team Proposed 2023/2024 TAC
Pollock	EBS	2,594,000	1,626,000	1,375,000	1,376,250	1,469,000	1,111,000	1,111,000	1,088,062	1,704,000	1,289,000	
	AI	61,856	51,241	19,000	1,840	61,264	50,752	19,000	2,694	61,379	50,825	
	Bogoslof	113,479	85,109	250	8	113,479	85,109	250	256	113,479	85,109	
Pacific cod	BS	147,949	123,805	111,380	109,202	183,012	153,383	136,466	113,251	180,909	151,709	
	AI	27,400	20,600	13,796	7,298	27,400	20,600	13,796	4,861	27,400	20,600	
Sablefish	BSAI/GOA	60,426	29,558	n/a		40,432	34,521	n/a		42,520	36,318	
	BS	n/a	3,396	3,396	4,169	n/a	5,264	5,264	4,146	n/a	6,529	
	AI	n/a	4,717	4,717	1,578	n/a	6,463	6,463	1,987	n/a	7,786	
Yellowfin sole	BSAI	341,571	313,477	200,000	108,788	377,071	354,014	250,000	102,234	382,035	358,675	
Greenland turbot	BSAI	8,568	7,326	6,025	1,597	7,687	6,572	6,572	1,421	6,698	5,724	
	BS	n/a	6,176	5,125	1,130	n/a	5,540	5,540	989	n/a	4,825	
	AI	n/a	1,150	900	467	n/a	1,032	1,032	432	n/a	899	
Arrowtooth flounder	BSAI	90,873	77,349	15,000	9,014	94,445	80,389	20,000	5,887	97,944	83,389	
Kamchatka flounder	BSAI	10,630	8,982	8,982	6,667	10,903	9,214	9,214	8,166	11,115	9,393	
Northern rock sole	BSAI	145,180	140,306	54,500	14,393	214,084	206,896	66,000	17,070	280,621	271,199	
Flathead sole	BSAI	75,863	62,567	25,000	10,259	77,967	64,288	35,500	13,257	80,034	65,988	
Alaska plaice	BSAI	37,924	31,657	24,500	15,862	39,305	32,697	29,221	8,398	39,685	32,998	
Other flatfish	BSAI	22,919	17,189	6,500	2,638	22,919	17,189	10,000	2,041	22,919	17,189	
Pacific Ocean perch	BSAI	44,376	37,173	35,899	35,479	42,605	35,688	35,385	24,190	40,977	34,322	
	BS	n/a	10,782	10,782	10,693	n/a	10,352	10,352	4,860	n/a	9,956	
	EAI	n/a	8,419	8,419	8,288	n/a	8,083	8,083	5,000	n/a	7,774	
	CAI	n/a	6,198	6,198	5,993	n/a	5,950	5,950	4,668	n/a	5,722	
	WAI	n/a	11,774	10,500	10,505	n/a	11,303	11,000	9,662	n/a	10,870	
Northern rockfish	BSAI	18,917	15,557	13,000	6,212	23,420	19,217	17,000	7,321	22,594	18,538	
Blackspotted/Rougheye Rockfish	BSAI	576	482	482	515	598	503	503	326	615	517	
	EBS/EAI	n/a	313	313	196	n/a	326	326	114	n/a	334	
	CAI/WAI	n/a	169	169	319	n/a	177	177	212	n/a	183	
Shortraker rockfish	BSAI	722	541	500	496	722	541	541	194	722	541	
Other rockfish	BSAI	1,751	1,313	916	1,002	1,751	1,313	1,144	903	1,751	1,313	
	BS	n/a	919	522	392	n/a	919	750	467	n/a	919	
	AI	n/a	394	394	610	n/a	394	394	436	n/a	394	
Atka mackerel	BSAI	85,580	73,590	62,257	36,171	91,870	78,510	66,481	37,467	84,440	71,990	
	EAI/BS	n/a	25,760	25,760	25,183	n/a	27,260	27,260	10,688	n/a	25,000	
	CAI	n/a	15,450	15,450	15,308	n/a	16,880	16,880	15,502	n/a	15,470	
	WAI	n/a	32,380	21,047	20,863	n/a	34,370	22,341	21,965	n/a	31,520	
Skates	BSAI	49,297	41,257	18,000	20,029	47,790	39,958	30,000	22,892	46,475	38,824	
Sharks	BSAI	689	517	200	221	689	517	500	121	689	517	
Octopuses	BSAI	4,769	3,576	700	170	4,769	3,576	700	199	4,769	3,576	
Total	BSAI	3,945,315	2,747,727	2,000,000	1,795,041	2,953,182	2,383,653	1,871,000	1,478,032	3,253,770	2,626,251	

Sources: 2021 OFLs, ABCs, and TACs and 2022 OFLs and ABCs are from harvest specifications adopted by the Council in December 2020 and December 2021 respectively; 2021 catches through December 31, and 2022 catches through September 10, 2022 from AKR Catch Accounting.

State fisheries: Pacific cod and sablefish

- Account for guideline harvest levels (GHLs) in State waters cod fishery.
  - GHL in AI set at 39% of AI ABC (max of 15,000,000 lbs)
  - GHL in BS set at 12% of BS ABC
  - Additional set-aside of 45t for the Area O jig fishery
- Account for GHL for sablefish harvest in Bering Sea
  - 5% of the BSAI ABC to accommodate harvest from BS
  - Set aside new in 2023 specs but not a new fishery
    - Previously state waters fished by IFQ vessels and catch accrued to their IFQ therefore directly off TAC
    - Recently non-IFQ vessels but still accrued towards TAC therefore a set-aside for the GHL fishery is necessary

Flatfish Flexibility (Table 7)

- ABC reserve for flathead sole, rock sole and yellowfin sole
- Evaluate difference between ABC and TAC for each species (ABC surplus) consider if it should be reduced by discretionary buffer (social, economic or ecological conditions)
- Designate some, all or none as ABC reserve

PSC limits (Tables 8, 9, 10)

- Red king crab, Tanner crab, snow crab and herring overall set in regulation based on biomass estimates
  - Crab estimates are updated for 2023
    - RKC is at the lowest level (32,000), snow is at the floor, Tanner is at the middle step of stair-step
    - Herring will be updated prior to the December 2022 action on BSAI harvest specifications
- Red King Crab Savings Subarea closed to nonpelagic gear if ADF&G does not set a TAC for red king crab in the Bristol Bay subarea.
  - If the directed BBRKC fishery is closed in 2022/2023 then in 2023 the area will be closed to nonpelagic gear

Halibut discard mortality rates for 2023/24 (updated in Table 12)

- Halibut DMR working group recommended DMRs for 2023/24 as compared with those in 2022 (recommended by both BSAI PT and SSC)

Area	Gear	Operation	2022 DMRs (specified)	2023/24 DMRs (recommended)
BSAI	Pot	All	33%	26%
	Hook-and-line	CP	10%	9%
	Hook-and-line	CV	10% [a]	9% [a]
	Non-pelagic trawl	Mothership / CP	84%	85%
	Non-pelagic trawl	CV	62%	62%

a based on BSAI HAL CP

PSC limit for Chinook salmon in EBS pollock fishery

- Set in regulation, the Chinook PSC cap for the EBS pollock fishery will fluctuate based on an estimate of abundance of the in-river post-season adult abundance of a combined three rivers (Unalakleet, Upper Yukon and Kuskokwim) “Three River Index”
- Letter from ADF&G indicates that the 3-River Index level is 158,646 salmon which is below the threshold of 250,000 salmon therefore the overall PSC limit will be at a ‘low Chinook abundance’ level of 45,000 Chinook with the annual limit of 33,318 salmon in 2023. [No action required]

QUESTIONS?

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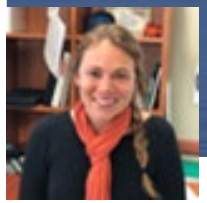
C5 GOA Groundfish Plan Team Report & Proposed Harvest Specifications 2023-2024

October 2022

Sara Cleaver, GOA Groundfish PT Coordinator

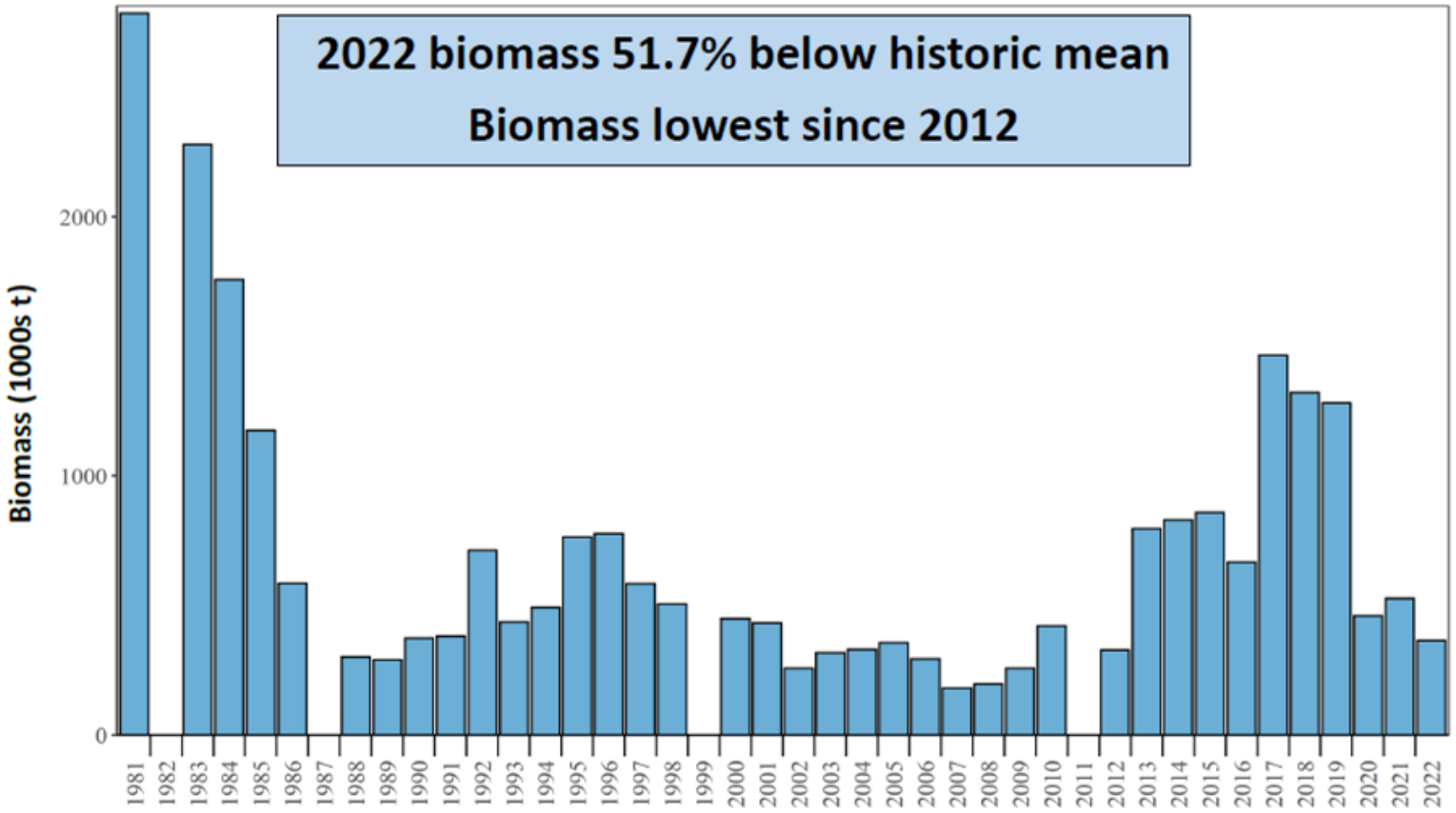


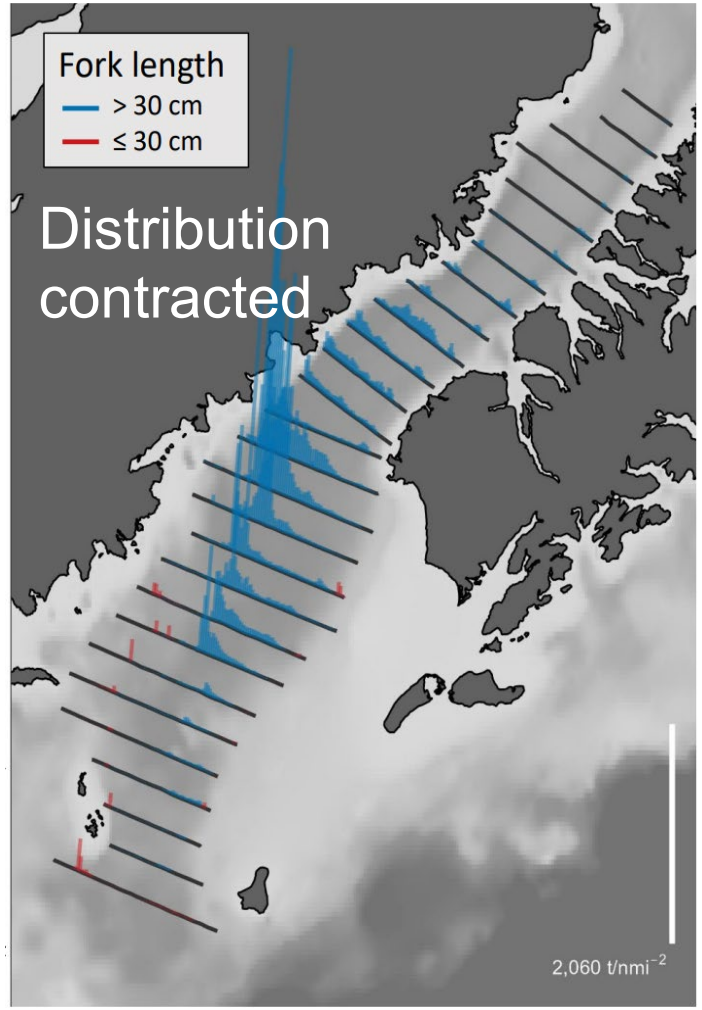
GOA PT Agenda Items (red = PT recommendation)

Topic	Model Change
Shelikof Survey	NA
GOA Pollock	Minor
GOA Other Rockfish	Moderate
SEO Demersal Shelf Rockfish	Many
Spatial Management Policy	NA
GOA CLIM: OY, Atlantis, CEATTLE	No
Vulnerability Assessment	No
Northern Rockfish	Moderate
Dusky Rockfish	Moderate
Thornyhead Rockfish	Moderate
Proposed Harvest Specifications	NA
Halibut Discard Mortality Rates	NA

Links to presentations underlined

Shelikof survey for GOA pollock- highlights





Thanks to Dave McGowan

GOA GF PROPOSED HARVEST SPECIFICATIONS & HALIBUT DMRS

- Proposed GOA groundfish harvest specifications for upcoming 2-year period (2023-2024)
- Notifies public of expected action to set final harvest specifications in December 2022.
- Typically, TACs in proposed specs are rolled over from the 2023 set in regulation
- Specs for year after next (2024) typically equal to upcoming year (2023)

- Proposed TACs that account for:
  - GOA state waters Pacific cod GHL (Table 2), 25% to 30% reduction from ABC
- PSC limit apportionments for halibut (Tables 9, 10, 11)
- Updated halibut DMRs (Table 12)

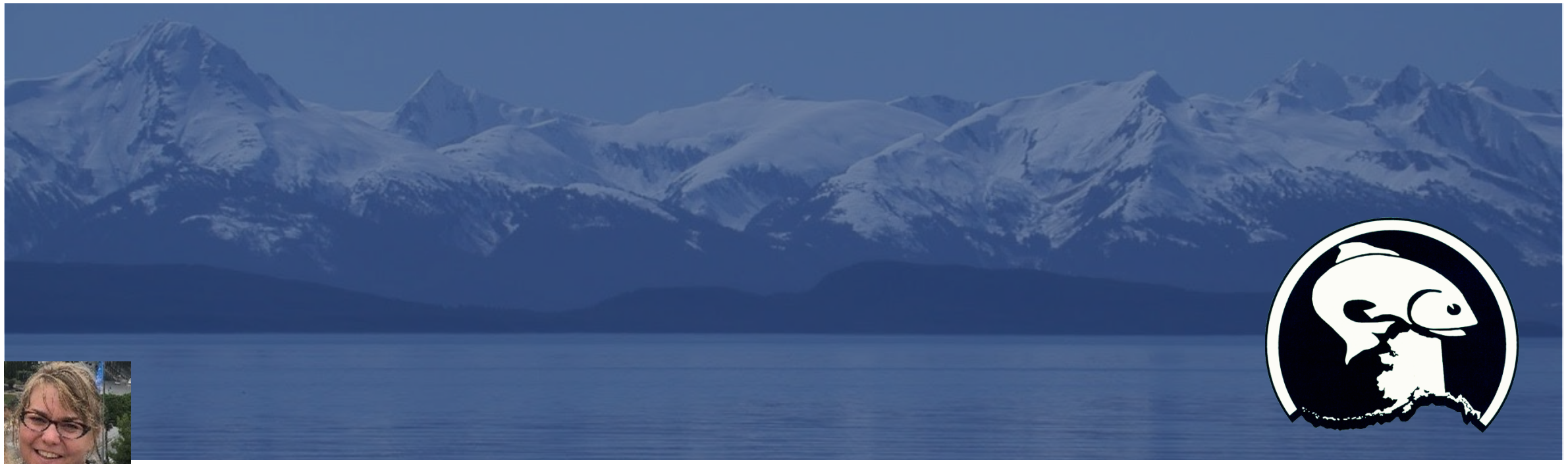
TABLE 12- Halibut discard mortality rates for 2023/24

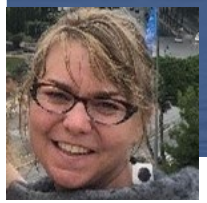
Area	Gear	Operation	2022 DMRs (specified)	2023/24 DMRs (recommended)
GOA	Pot	All	29%	27%
	Hook-and-line	CP	15%	13%
	Hook-and-line	CV	12%	9%
	Non-pelagic trawl	Mothership / CP	83%	83%
	Non-pelagic trawl	CV	69%	74%
	Non-pelagic trawl	CV-Rockfish Prog	66%	55%
All	Pelagic trawl	All	100%*	100%*

[a] Based on BSAI HAL CP

*Fixed, not estimated

Council Spatial Management Policy





Development of Spatial Management Policy

- Years of discussions by the Joint Plan Teams and formation of the Stock Structure Workgroup
- December 2012 Council indicated its intent to develop a spatial management policy in a transparent public process
- Spatial Management Workshop 2013
- Goal of the 2013 workshop:
  - Discussion of management, enforcement, and implementation issues that the Council and its committees should address if annual catch limits (ACLs) or total annual catches (TACs) are recommended by subarea.
  - Management tools for subarea allocations could include 1) industry could voluntarily implement, 2) NMFS already has authority to employ, and/or 3) the Council could consider for action.

2014: Spatial Management Policy adopted by Council

1. As soon as preliminary scientific information indicates that further **stock structure separation or other spatial management measures** may be considered, the stock assessment authors, plan teams (groundfish, crab, scallop), and SSC should **advise the Council** of their findings and any **associated conservation concerns**.
2. With input from the agency, the public, and its advisory bodies, the Council (and NMFS) should **identify the economic, social, and management implications and potential options for management response** to these findings and identify the **suite of tools** that could be used to **achieve conservation and management goals**. In the case of crab and scallop management, ADF&G needs to be part of this process.
3. To the extent practicable, **further refinement of stock structure or other spatial conservation concerns** and **potential management responses** should be discussed through the process described in recommendations 1 and 2 above.
4. Based on the best information available provided through this process, the SSC should continue to recommend OFLs and ABCs that prevent overfishing of stocks.

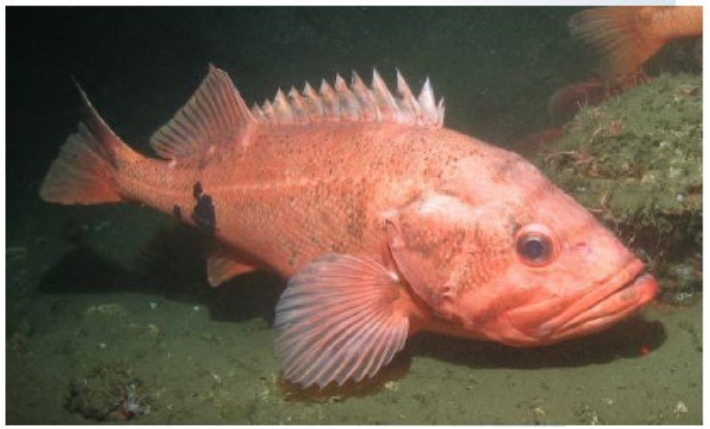
Council's proposed timeline for addressing SMP

Month	Action
September/October (year 1)	Notification of strong stock structure concern. SSC indicates to Council that it has 11 months to develop suite of tools and management and economic implications of the application of these tools to the stock/complex in question.
March/April (year 1)	Suite of proposed management tools compiled. One of these would be separate ABCs and/or OFLs per recommendations listed earlier.
March/April-August (year 1)	Evaluation of suite of management tools for consideration of management and economic implications. Note that this does not necessarily mean a comprehensive analysis; this could simply be an informed listing of the likely implications of each tool.
September/October (year 2)	Team/SSC/Council review of suite of tools and selection of approach for use in the coming harvest year (assuming that the approach does not require rulemaking).
2 years later: September/October (year 4)	Update on result of application of tool. If deemed insufficient to address issue, consideration of additional measures (e.g., area split).
Continuing forward annually in September/October	If management tool successful over 2 year time frame, continued annual update on progress. Consideration of performance criteria for continued need for tool.

Examples of Spatial Issues in BSAI and GOA involving Council SMP

BSAI

- Blackspotted and Rougheye rockfish catch in the Aleutian Islands



GOA

- Moving DSR out of other rockfish complex to create a GOA-wide DSR complex

Examples of Spatial Issues in BSAI and GOA involving Council SMP

BSAI

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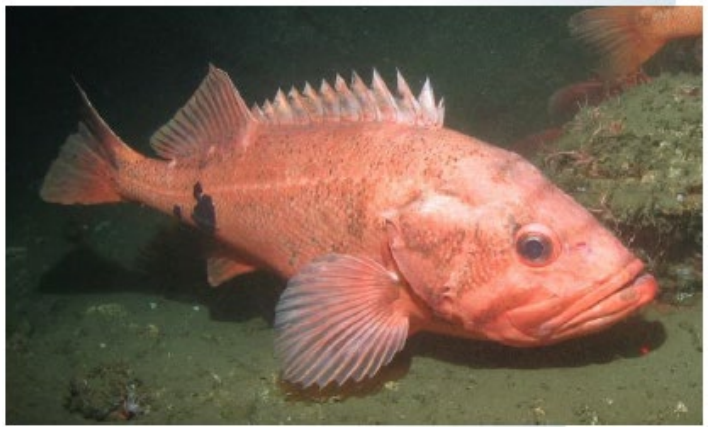
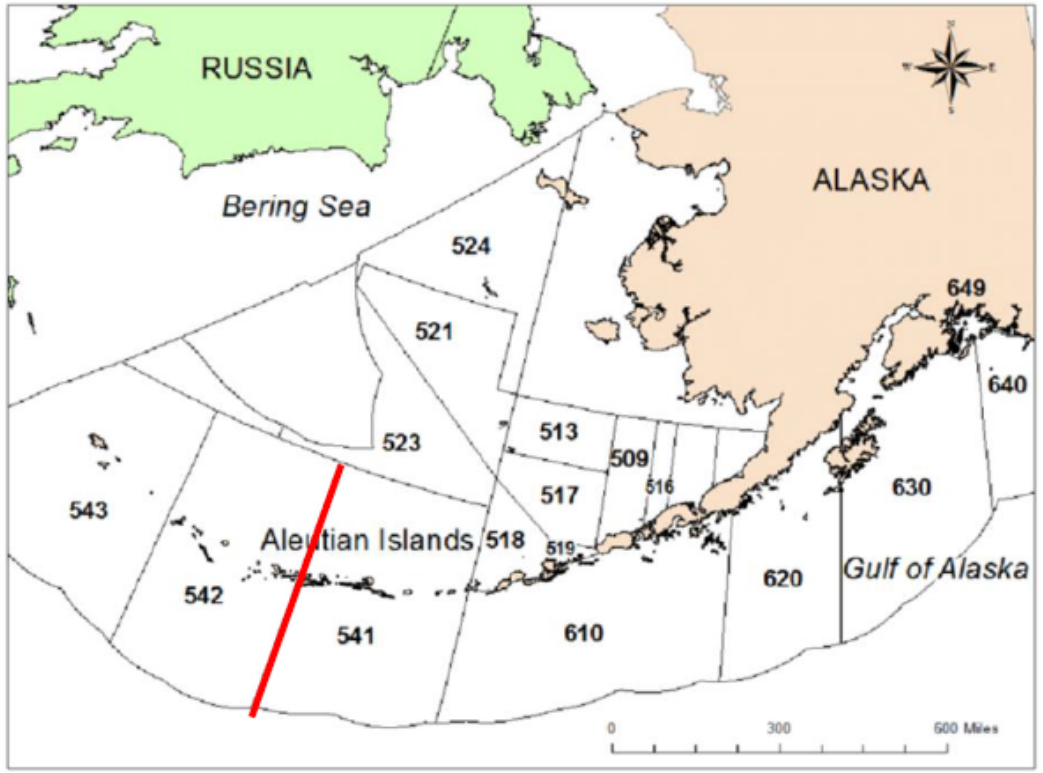


GOA

- Moving DSR out of other rockfish complex to create a GOA-wide DSR complex

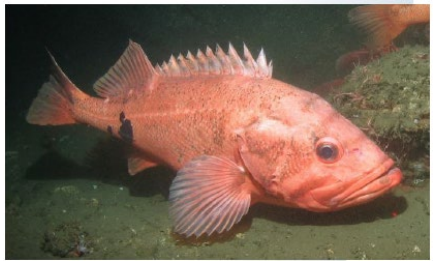
Current management split for BS/RE

Two management areas in the Aleutians: (1) Eastern Aleutians and Eastern Bering Sea (EAI/EBS) which includes 541 and (2) central and western Aleutians (CAI/WAI) which includes 542 and 543



Concern is for catch in WAI

- Since 2005 concerns raised by author, BSAI PT and SSC regarding disproportionate exploitation rates in the WAI as compared to other regions.
- 2005-2009 considerations of stock structure and resulting assessments for EBS and AI but specifications BSAI-wide
- Stock Structure Workgroup formed to address and developed stock structure template



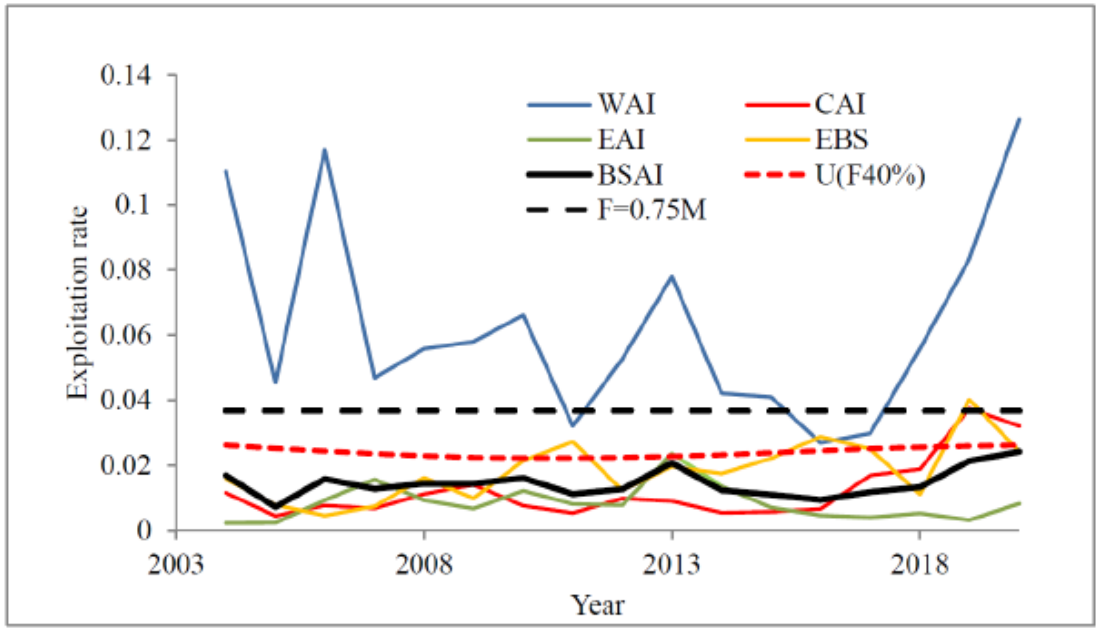


Figure 14A.1. Exploitation rates within BSAI subareas for blackspotted/rougheye rockfish, with reference exploitation rates of 0.75*M and $U_{F40\%}$.

From Spencer and Ianelli, 2020

2021 presentations of issues/genetics

Genetic versus demographic connectivity

- We emphasize that lack of genetic structure should not be used as justification to adopt less conservative spatial management and that this decision should be based on assessment data
- In summary, detection of genetic structure likely indicates demographic independence, but lack of genetic structure does not indicate demographic connectivity

NOAA FISHERIES

"Although the whole genome analysis is consistent with the 2014 microsatellite analysis, the non-genetic information on disproportionate harvesting …does not provide evidence to alter the recent Plan Team and SSC recommendations that more effective spatial management measures should be identified"
From Larson et al, 2020

So where are we now?

Blackspotted and rougheye rockfish MSSC and catch by AI sub-area 2015-2022 Table 1 (revised labels)

Year	CAI (Area 542) Catch	MSSC	MSSC remaining	WAI (Area 543) Catch	MSSC	MSSC remaining
2015	56	258	**202**	70	46	**24**
2016	50	324	**274**	40	58	**18**
2017	118	166	**48**	35	29	**6**
2018	113	204	**91**	67	35	**32**
2019	208	167	**41**	104	37	**67**
2020	212	216	**4**	168	48	**120**
2021	198	138	**60**	120	31	**89**
2022	119	145	**26**	97	32	**65**

Request by Council

Discussion paper to address the issues and to what extent the Spatial Management Policy is working to address concerns

Need additional direction on whether to continue to hold workshops, write discussion papers or how else to address Council's policy if/when Steps 2 through 4 are employed but result in no change to specifications

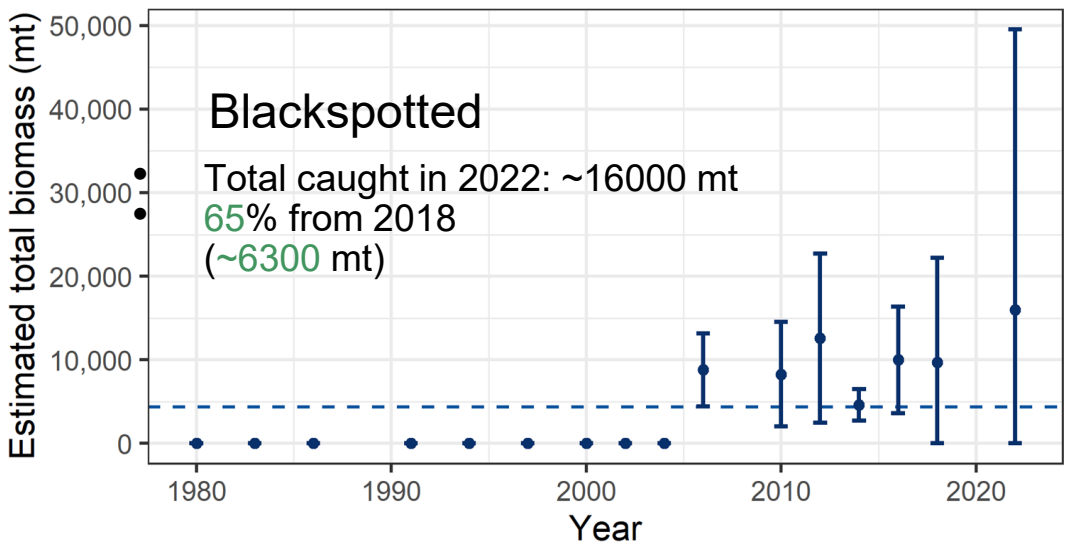
How do we assess whether or not application of a tool is 'sufficient to address issue'?

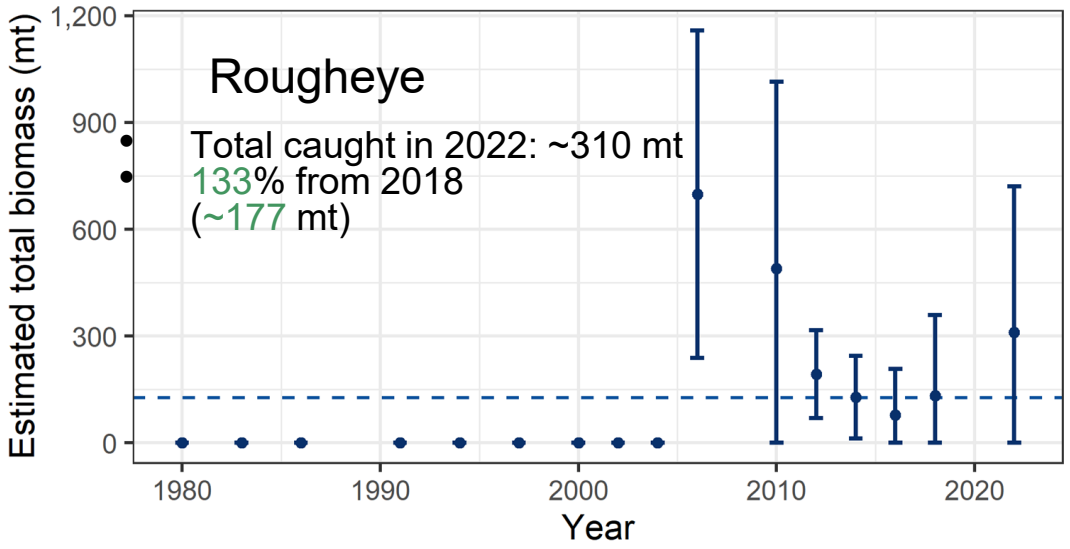
Month	Action
September/October (year 1)	Notification of strong stock structure concern. SSC indicates to Council that it has 11 months to develop suite of tools and management and economic implications of the application of these tools to the stock/complex in question.
March/April (year 1)	Suite of proposed management tools compiled. One of these would be separate ABCs and/or OFLs per recommend lier.
March/April-August (year 1)	Evaluation of suite of management tools for management and economic implications. N not necessarily mean a comprehensive analysis; y be an informed listing of the likely implicati
September/October (year 2)	Team/SSC/Council review of suite of tools pproach for use in the coming harvest year (assuming th oach does not require rulemaking).
2 years later: September/October (year 4)	Update on result of application of tool. If deemed insufficient to address issue, consideration of additional measures (e.g., area split).
Continuing forward annually in September/October	If management tool successful over 2 year time frame, continued annual update on progress. Consideration of performance criteria for continued need for tool.

Other considerations

Subarea ABCs for CAI/WAI

Year	ABC (CAI/WAI)	Catch (CAI/WAI)
2015	304	125
2016	382	89
2017	306	153
2018	374	180
2019	204	311
2020	264	380
2021	169	319
2022	177	216

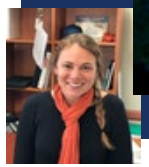




Where do we go from here?

- MSSC in WAI exceeded 2015; 2017-2022
- Sub-area ABC for CAI/WAI exceeded 2019-2022
  - However overall BSAI ABC not exceeded
- Absence of genetic evidence but not definitive absence of spatial concern
- Increase in survey estimates in 2022
- Full assessment in November 2022 for December Council review
  - Last full assessment in 2020

GOA OTHER ROCKFISH / DEMERSAL SHELF ROCKFISH SPATIAL MANAGEMENT POLICY



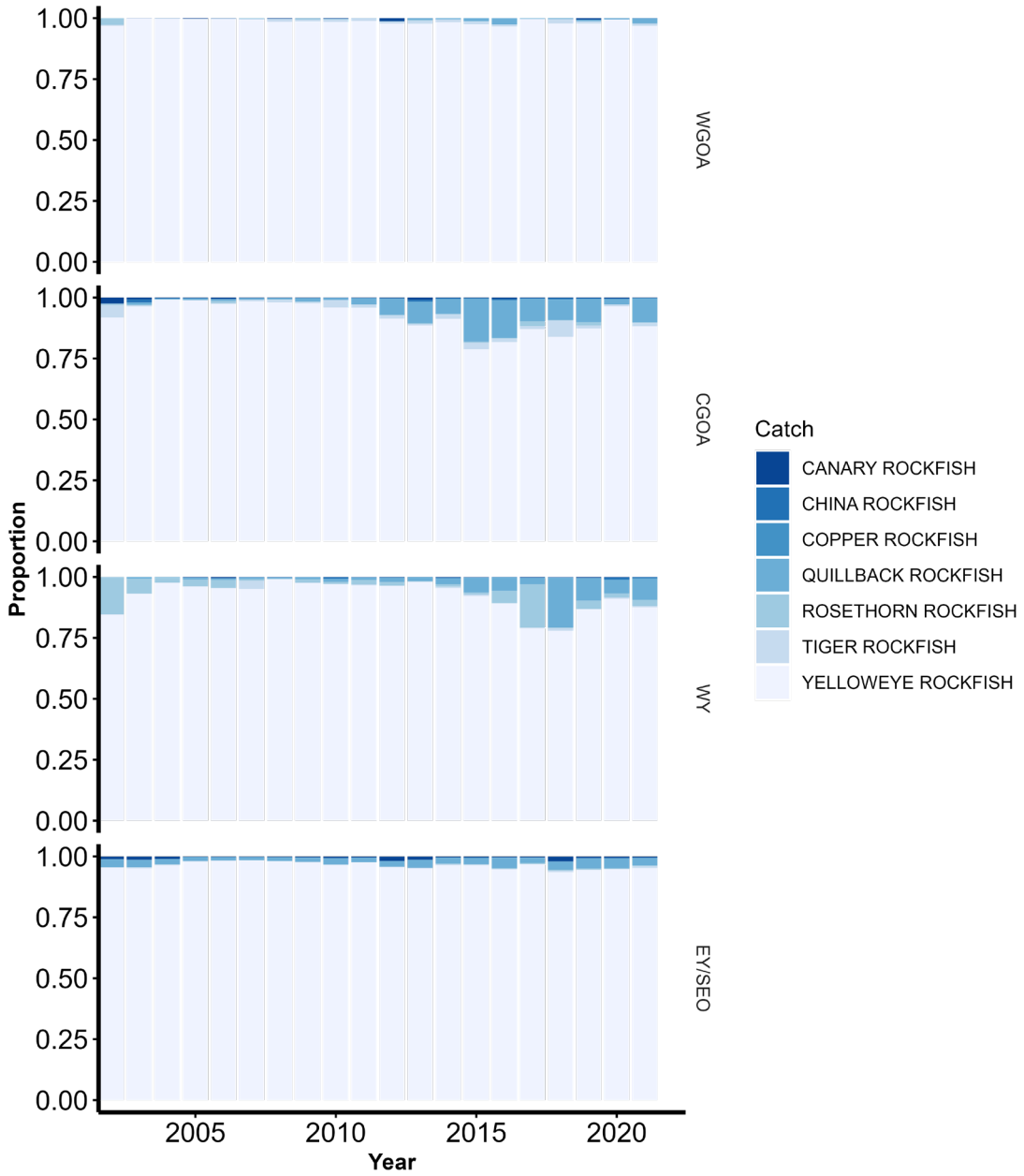
Thank you:
Cindy Tribuzio
Andrew Olson
Obren Davis
Mary Furuness
& other authors of the 2017 SAFE appendix

COUNCIL MOTION – OCTOBER 2021

"The Council supports the SSC recommendation to move to Step 2 of the Spatial Management Policy for consideration of separating DSR from the other rockfish complex Gulf-wide. An update of the 2017 discussion paper on this topic to identify economic and management implications and tools to achieve conservation and management goals should be developed to inform this process"

SMP Step 2: With input from the agency, the public, and its advisory bodies, the Council (and NMFS) should identify the economic, social, and management implications and potential options for management response to these findings and identify the suite of tools that could be used to achieve conservation and management goals.

Other Rockfish			Demersal Shelf Rockfish
WGOA & CGOA	EGOA:WY	EGOA:EY/SEO	EGOA:EY/SEO
Blackgill Rockfish	Blackgill Rockfish	Blackgill Rockfish	
Bocaccio	Bocaccio	Bocaccio	
Canary Rockfish	Canary Rockfish		Canary Rockfish
Chilipepper Rockfish	Chilipepper Rockfish	Chilipepper Rockfish	
China Rockfish	China Rockfish		China Rockfish
Copper Rockfish	Copper Rockfish		Copper Rockfish
Darkblotched Rockfish	Darkblotched Rockfish	Darkblotched Rockfish	
Greenstriped Rockfish	Greenstriped Rockfish	Greenstriped Rockfish	
Harlequin Rockfish	Harlequin Rockfish	Harlequin Rockfish	
	Northern Rockfish	Northern Rockfish	
Pygmy Rockfish	Pygmy Rockfish	Pygmy Rockfish	
Quillback Rockfish	Quillback Rockfish		Quillback Rockfish
Redbanded Rockfish	Redbanded Rockfish	Redbanded Rockfish	
Redstripe Rockfish	Redstripe Rockfish	Redstripe Rockfish	
Rosethorn Rockfish	Rosethorn Rockfish		Rosethorn Rockfish
Sharpchin Rockfish	Sharpchin Rockfish	Sharpchin Rockfish	
Silvergray Rockfish	Silvergray Rockfish	Silvergray Rockfish	
Splitnose Rockfish	Splitnose Rockfish	Splitnose Rockfish	
Stripetail Rockfish	Stripetail Rockfish	Stripetail Rockfish	
Tiger Rockfish	Tiger Rockfish		Tiger Rockfish
Vermilion Rockfish	Vermilion Rockfish	Vermilion Rockfish	
Widow Rockfish	Widow Rockfish	Widow Rockfish	
Yelloweye Rockfish	Yelloweye Rockfish		Yelloweye Rockfish
Yellowmouth Rockfish	Yellowmouth Rockfish	Yellowmouth Rockfish	
Yellowtail Rockfish	Yellowtail Rockfish	Yellowtail Rockfish	



DSR SUBGROUP DISTRIBUTION & CATCH COMPOSITION

CATCH OF DSR SPECIES

Table 2 Percent of Catch of DSR Species in WGOA, CGOA, and WY by gear type. Data from NMFS Catch Accounting System (CAS) compiled by AKFIN in Comprehensive_Blend_ca.

	HAL	JIG	NPT	POT	PTR	TOTAL
2003	81%	6%	13%	0%	0%	100%
2004	60%	2%	38%	0%	0%	100%
2005	66%	0%	32%	0%	1%	100%
2006	70%	1%	27%	0%	2%	100%
2007	72%	1%	26%	0%	2%	100%
2008	66%	1%	32%	0%	1%	100%
2009	68%	1%	31%	0%	0%	100%
2010	73%	0%	26%	1%	0%	100%
2011	74%	0%	23%	3%	0%	100%
2012	44%	0%	54%	0%	1%	100%
2013	73%	1%	25%	1%	0%	100%
2014	64%	1%	33%	1%	0%	100%
2015	58%	1%	40%	0%	0%	100%
2016	70%	3%	26%	1%	0%	100%
2017	74%	3%	20%	3%	0%	100%
2018	76%	3%	21%	0%	0%	100%
2019	67%	4%	27%	1%	1%	100%
2020	53%	4%	41%	2%	0%	100%
2021	60%	1%	37%	2%	0%	100%
2022	75%	0%	22%	3%	0%	100%
TOTAL	**68%**	**2%**	**29%**	**1%**	**0%**	**100%**

H&L gear in the IFQ fisheries accounts for over 95% of the DSR catch in SEO

TIER 4/6 METHODS

- In 2017, the SSC recommended using what was then known as “Alternative 3a”: Using Tier 6 methods for the six non-yelloweye rockfish DSR species GOA-wide.
- In EY/SEO, the Tier 4 approach currently used for yelloweye rockfish would be maintained, but Tier 6 methods would be used for yelloweye rockfish in all other regions. The complex ABC/OFLs would be the sum of the individual species estimates by region.

SSC REPORT, OCTOBER 2021

- How would separating DSR from Other Rockfish impact setting harvest specifications?
- Would an FMP amendment or other regulatory change be needed?
- How would separate DSR assessments (as outlined in the GOA GPT September 2021 minutes) produce harvest specifications? GOA-wide, or regionally?
- Should a combined assessment with two tiers (e.g., skates assessment) be considered?
- How would these specifications align with state management of the DSR complex? Are there conservation concerns with the proposed assessment structure?
- Do other tools need to be considered for appropriate management and conservation?
- Are there any economic or other management impacts (e.g., catch accounting) to be considered?

POTENTIAL IMPACTS

- Higher level of management oversight/monitoring for vulnerable species
- Potential ABC/OFL overages
  - Incidental catch is variable
  - Could be somewhat mitigated through combined subarea ABC/OFLs
- Stock assessment and jurisdictional considerations
- Inseason management

NEXT STEPS

If the Council does not identify any concerns, this change to the DSR sub-group could move forward in upcoming assessment and harvest specifications cycles.

- Would not require FMP amendment
- Regulatory amendment to Table 10- basis species for retention
- Next Other Rockfish full assessment 2023

If the Council *does* identify specific obstacles or constraints, staff requests additional direction as to how to move forward, including an appropriate timeline.

OTHER ROCKFISH/DSR SPATIAL MANAGEMENT

- The Team recommended that:
  - **The 2022 DSR assessment incorporate an example of how the DSR Gulf-wide OFL and the ABCs would be calculated under this revised categorization, including corresponding changes to the Other Rockfish OFLs and ABCs**

  - Clarification: "Gulf wide OFL" = WGOA/CGOA/WY
    - Still have separate SEO DSR OFL
  - Correction: bringing back examples in 2023, not this year

  - The Team suggested that Council begin the planning process for the rulemaking needed to revise regulations associated with the establishment of a Gulf-wide DSR category, per potential Council action on this item.

QUESTIONS?

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