
C3 BSAI and GOA Groundfish Proposed Specifications and GOA Rockfish Spatial Management

Diana Stram (BSAI)
Sara Cleaver (GOA)



Order of presentations

1. Joint Groundfish Plan Team report
 - a. Survey overview
 - b. Joint items of interest
 - c. Halibut DMR and marine mammal depredation *discussion paper*
2. BSAI Groundfish Plan Team report
 - a. Overview of plan team stock review and discussions
 - b. Actions for the Council under proposed specification
3. GOA Groundfish Plan Team report
 - a. Overview of plan team stock review and discussions
 - b. Actions for the Council under proposed specification
4. GOA Rockfish Spatial Management *discussion paper*



C3 Joint Groundfish September Plan Team Report

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



October 2024, Presentation to the Council



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Groundfish Plan Team Meeting, Sept 17-19, 2024

BSAI Groundfish Plan Team Members:

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

GOA Groundfish Plan Team Members:

| | |
|----------------|----------------------|
| Jim Ianelli | AFSC REFM (co-chair) |
| Chris Lunsford | AFSC ABL (co-chair) |
| Sara Cleaver | NPFMC (coordinator) |
| Abby Jahn | 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 |
| Ben Williams | AFSC ABL |



Joint Teams Presentation Summary

- Met Tuesday, September 17, 2024 at 9:00 am AKDT
 - Virtual meeting only via Zoom, Team's [electronic agenda](#)
 - Presentations are linked in the header (in report)
- Future meetings:
 - November 12-15, 2024
 - Tentative 2025 dates:
 - Week of September 15-19 (4 days TBD)
 - November 2025 date is TBD.

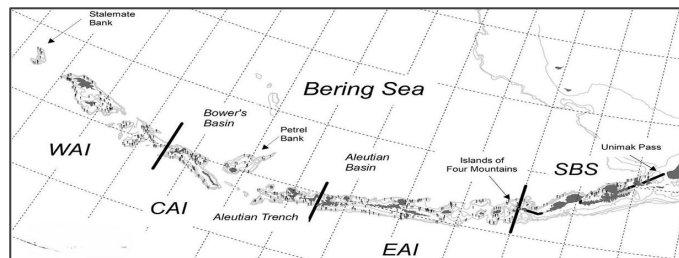
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Issue of Veterans day and Thanksgiving week and proximity of Council meeting in 2025

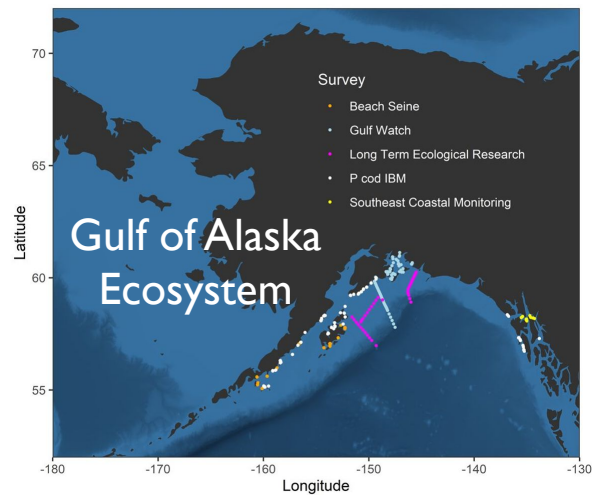
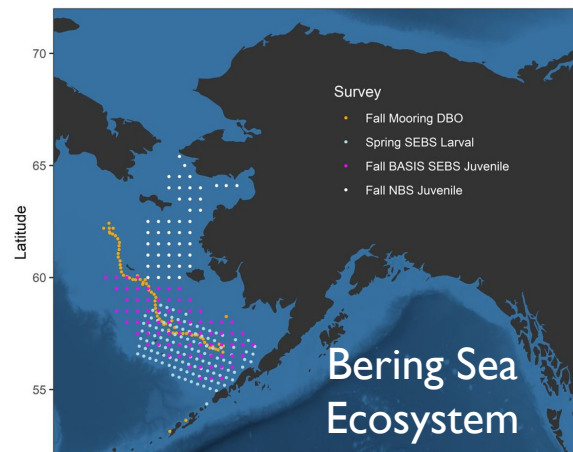
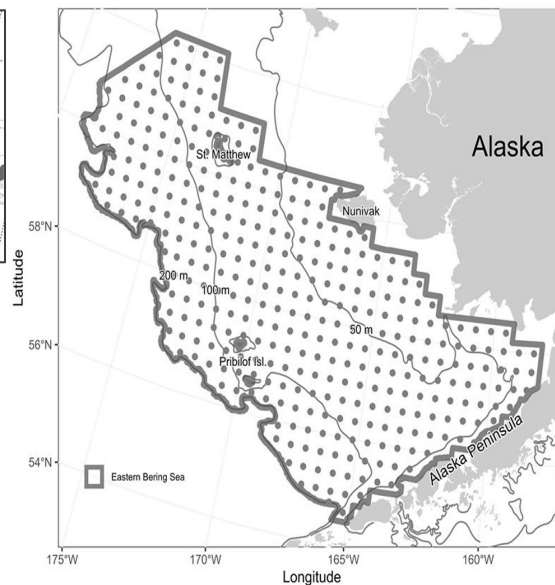


2024 survey previews

AI Bottom Trawl



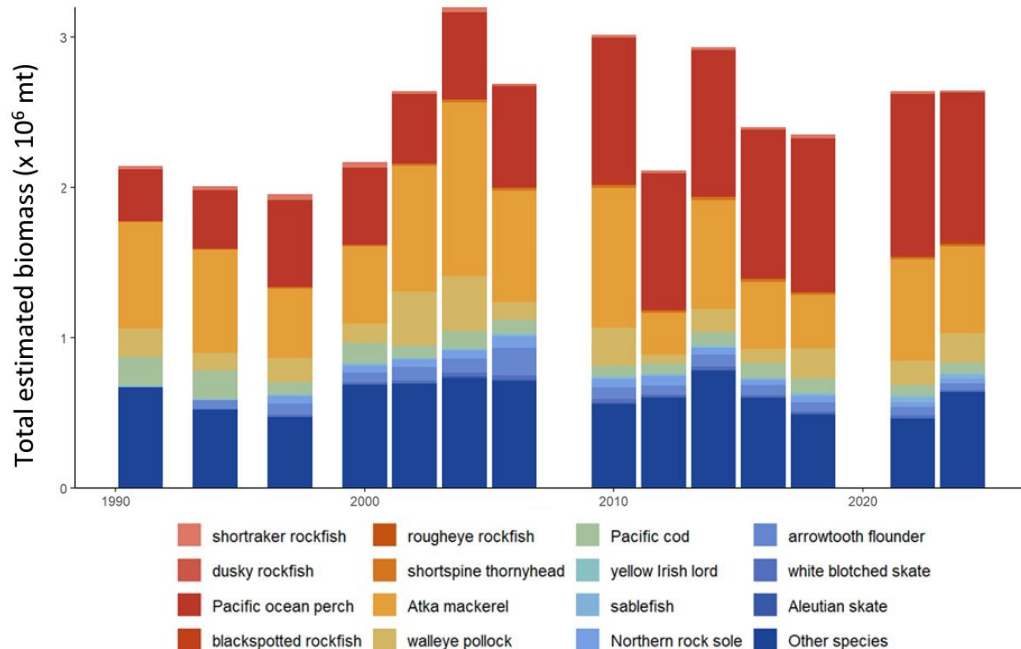
EBS Bottom Trawl



Aleutian Islands Trawl Survey

- 20% reduction in stations
- >76,000 lengths, >6,500 otoliths
- Bottom temp average, surface below average
- Larger changes in biomass in deep water rockfish

Catch composition



Thanks to Susanne McDermott

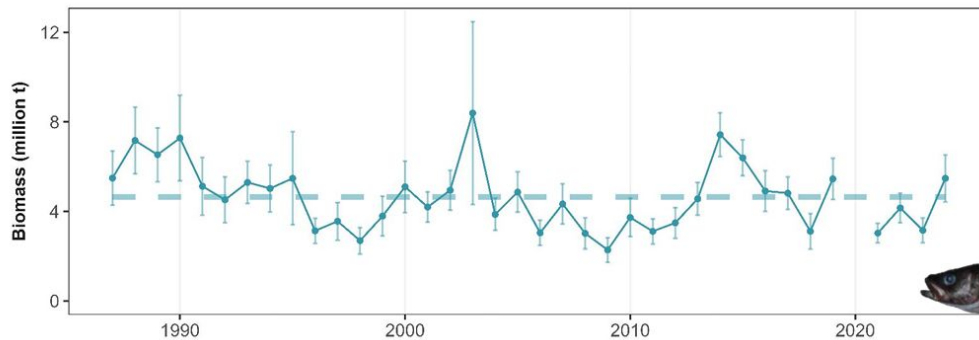
Eastern Bering Sea Trawl Survey

- 26 corner stations omitted
- 125,265 lengths, 6,070 otoliths, 4,917 stomachs collected
- Bottom temp average, surface temp below average, cold pool area near average
- Biomass increased for most species (pollock and flatfish)

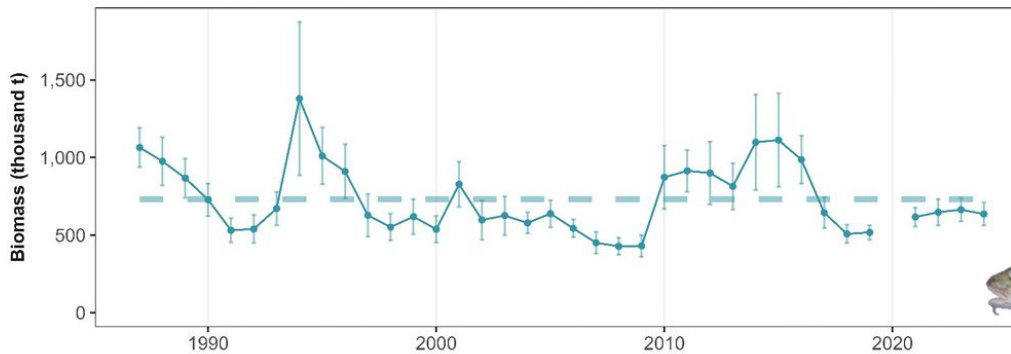
Thanks to Duane Stevenson

| EBS | | | |
|---------------------|------|-----------------|---------------------|
| Common name | Year | Biomass (mt) | Population (x1,000) |
| walleye pollock | 2023 | 3,154,668 | 5,685,500 |
| | 2024 | 5,476,067 (74%) | 10,307,932 (81%) |
| Pacific cod | 2023 | 663,075 | 555,739 |
| | 2024 | 635,840 (-4%) | 436,530 (-21%) |
| yellowfin sole | 2023 | 1,393,379 | 5,567,596 |
| | 2024 | 1,503,618 (8%) | 5,643,105 (1%) |
| northern rock sole | 2023 | 1,380,684 | 6,657,558 |
| | 2024 | 1,439,739 (4%) | 7,417,950 (11%) |
| flathead sole | 2023 | 594,851 | 2,039,623 |
| | 2024 | 723,996 (22%) | 2,311,092 (13%) |
| Bering flounder | 2023 | 6,813 | 33,736 |
| | 2024 | 10,370 (52%) | 48,918 (45%) |
| Alaska plaice | 2023 | 358,845 | 617,849 |
| | 2024 | 349,579 (-3%) | 634,036 (3%) |
| arrowtooth flounder | 2023 | 462,575 | 861,345 |
| | 2024 | 582,469 (26%) | 926,415 (8%) |
| Kamchatka flounder | 2023 | 24,875 | 40,128 |
| | 2024 | 28,362 (14%) | 69,129 (72%) |
| Pacific halibut | 2023 | 170,238 | 95,321 |
| | 2024 | 125,145 (-26%) | 65,136 (-32%) |
| Alaska skate | 2023 | 418,483 | 98,290 |
| | 2024 | 407,133 (-3%) | 102,931 (5%) |
| Greenland turbot | 2023 | 5,857 | 3,743 |
| | 2024 | 4,959 (-15%) | 1,595 (-57%) |

Eastern Bering Sea Trawl Survey



EBS Biomass
Mean: 4.6 M
2024: 5.5 M (+74%)

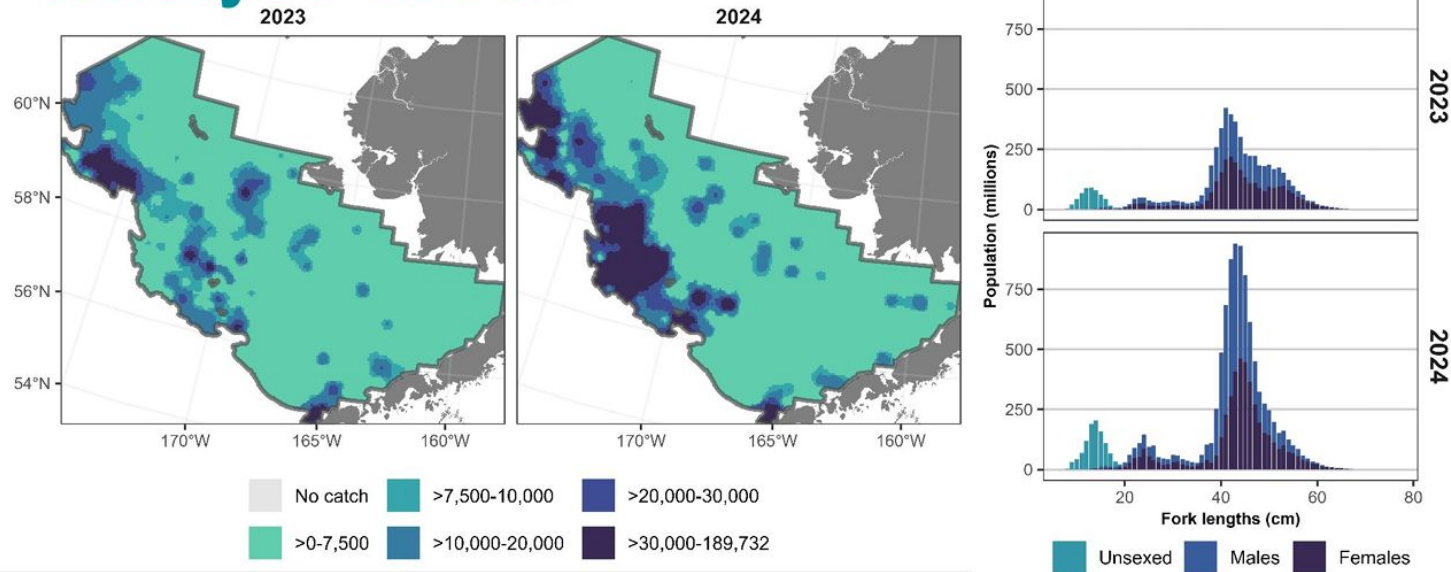


EBS Biomass
Mean: 731.2 K
2024: 635.8 K (-4%)



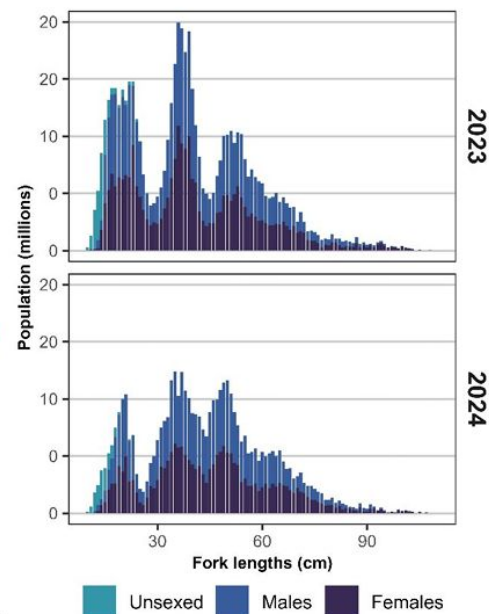
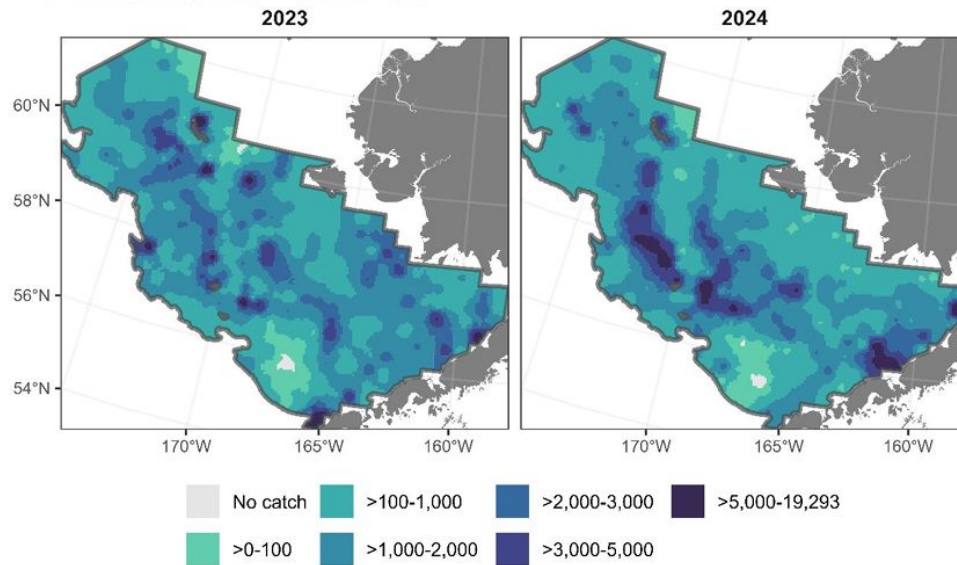
Eastern Bering Sea Trawl Survey

Walleye Pollock



Eastern Bering Sea Trawl Survey

Pacific Cod



Ecosystem Surveys

- Bering Sea Summary (southeastern and northern, SEBS / NBS)
 - Cooler than heatwave years, lower large copepods and avg small copepods in SEBS but increase in NBS, large fall bloom phytoplankton, age-0 pollock high in spring, low in surface in fall, low body condition in SEBS
- Gulf of Alaska (GOA) Summary
 - Western GOA cooler, nearshore eastern GOA warmer, high lipid content in zooplankton, avg age-0 Pcod but above avg age-0 pollock in nearshore, age-0 sablefish avg growth rates
- Highlighted Projects
 - Larval size-at-date sensitivity, earlier spawning / faster growth in warm years

Thanks to Ellen Yasumiishi



Overviews

- ESR Climate Update (one for each region)
 - Overall cooler conditions in EBS and AI, moderate El Nino in GOA
- NMFS Inseason Management
 - First presentation of this kind to Plan Team, flags important fishery changes and Plan Team would like to see in future (*note errata in JPT report)
- ESP and Socioeconomic Sablefish Indicators
 - Teams requested clarification from SSC on how socioeconomic information fits into risk tables, ABC/OFL, and TAC decisions and to standardize definitions on size grade and pricing

Thanks to B. Ferriss, I. Ortiz, E. Siddon, A. Jahn, S. Whitney, R. Dame, K. Shotwell



Other Topics

- Data Limited Methods (DLM) Working Group
 - Requested another DLM progress report at Joint PT in 2025
- Age and Growth Update
 - Recommended that maturity analyses be a priority in near future
- Halibut Discard Mortality Rates (DMRs)
 - Recommended adopting 2025-2026 DMRs from Halibut DMR group
- REMA Diagnostics
 - Encouraged authors to explore new diagnostics at their discretion

Thanks to Cindy Tribuzio, Derek Chamberlin, Michael Fey, Jane Sullivan



Halibut DMR Workgroup

Marine Mammals Feeding on Halibut Discards



Marine Mammals Feeding on Halibut Discards

- Informational report only
- Outlines 3 ways in which DMRs are calculated
 - Biennially specified DMR through DMR workgroup
 - Real-time haul based DMR for deck sorted halibut
 - Fixed rate (100% for pelagic trawl)
- MM feeding on discards is
 - not accounted for in any method
 - Deck sorted hauls with MM feeding on discards moved to U - Unknown and the average deck sorted rate is used
 - Specified rate used in all cases including when MM feeding on discards
 - not a statistical sample with a defined sampling frame

Marine Mammals Feeding on Halibut Discards

- Fixed DMRs could be established on all hauls with MM feeding on discards
 - Policy decision
 - Outboard cameras could support exploration of methods to incorporate MM feeding on discards into DMR calculations

Table 1 Hauls with Marine Mammals Feeding on Discards by Sector

| Sector | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---------------------------|------|------|------|------|------|------|
| BSAI Nonpelagic Trawl CPs | 95 | 181 | 295 | 204 | 66 | 33 |
| BSAI Hook and Line CPs | 8 | 5 | 5 | 5 | 8 | 5 |
| BSAI Pot CPs | 24 | 0 | 1 | 0 | 2 | 3 |
| BSAI Nonpelagic Trawl CVs | 0 | 0 | 0 | 9 | 1 | 0 |
| Other | 5 | 1 | 2 | 2 | 2 | 8 |

Source: NMFS AFSC Observer Program, data compiled by AKFIN in Comprehensive_NORPAC

Table 1 Kilograms of Halibut on Hauls with Marine Mammals Feeding on Discards by Sector, inclusive of halibut sorted from the deck and factory on non-pelagic trawl CPs

| Sector | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---------------------------|--------|--------|--------|--------|--------|-------|
| BSAI Nonpelagic Trawl CPs | 14,163 | 49,592 | 98,280 | 66,758 | 21,054 | 8,926 |
| BSAI Hook and Line CPs | 3,376 | 660 | 285 | 480 | 2,395 | 2,361 |
| Other | 2,463 | 128 | 250 | 3,700 | 724 | 1,275 |

Source: NMFS AFSC Observer Program, data compiled by AKFIN in Comprehensive_NORPAC

Thank You!



Groundfish Plan Team Contacts:

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C3 Bering Sea Aleutian Islands Groundfish September Plan Team Report

Steve Barbeaux, Kalei Shotwell, Diana Stram, Cindy Tribuzio



October 2024, Presentation to the Council



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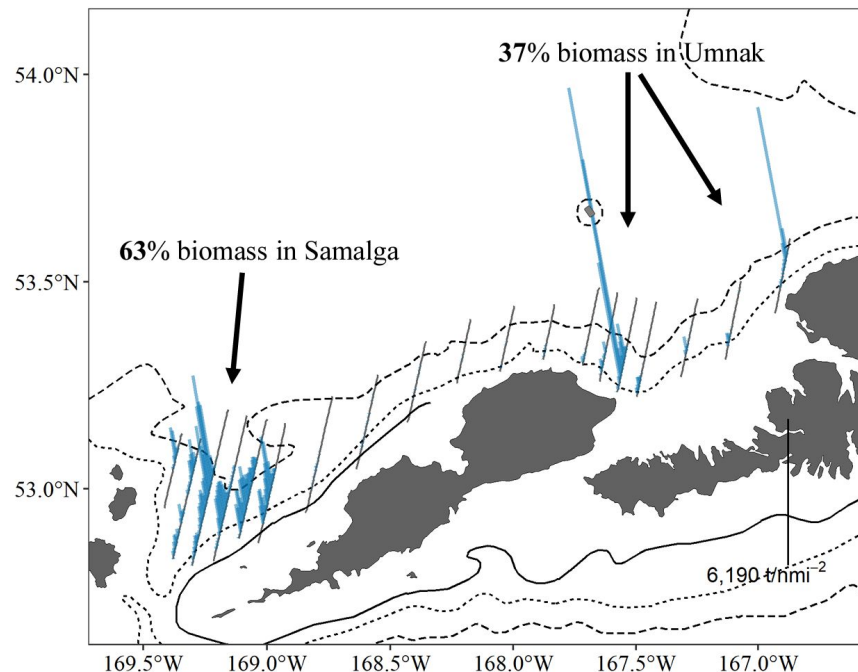
BSAI Presentation Summary

| Topic | Presenter | Type | Recommendations |
|--|--|---------------|---------------------|
| Bogoslof Winter Acoustic Survey | Nathan Lauffenburger | Survey Update | No |
| EBS Acoustic Survey & AVO Index | Abigail McCarthy, Nathan Lauffenburger | Survey Update | No |
| EBS Pollock | Jim Ianelli | Full Model | Yes, tier change |
| EBS Pacific Cod | Steve Barbeaux | Full Model | Yes, 2 models |
| AI Pacific Cod | Ingrid Spies | Full Model | Yes, 5 models |
| Alaska Plaice | Lee Cronin-Fine | Full Model | Yes, 2 models |
| Northern Rock Sole | Carey McGilliard | Full Model | Yes, 2 models |
| Greenland Turbot | Meaghan Bryan | Full Model | Yes, 3 models |
| Pacific Ocean Perch | Paul Spencer | Full Model | Yes, 2 models |
| Rougheye/Blackspotted Rockfish | Paul Spencer | Update Model | Yes, 1 model |
| Harvest Projections | Melissa Haltuch | Final Models | Yes, biomass trends |
| Proposed Specifications | Steve Whitney | | |

Bogoslof Winter Acoustic Survey

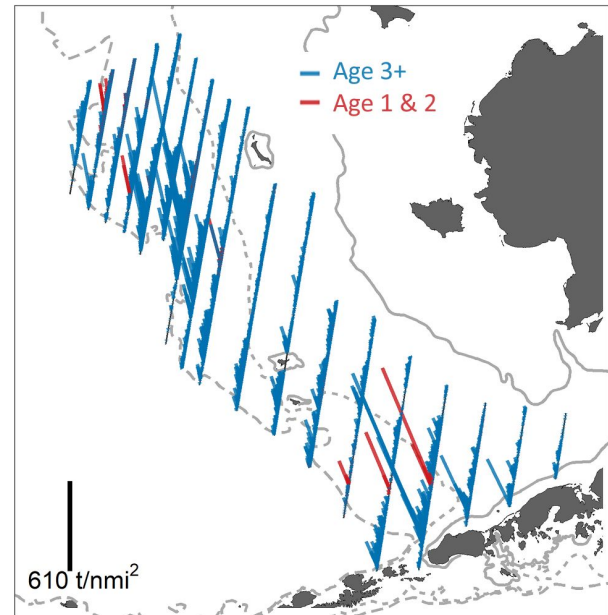
- Preliminary results:
 - Weather reduced survey from 4 to 2 days, 19 transects combo spacing
 - Most female were pre-spawning so survey timing was good, surface temp average
 - 2024 pollock estimate is 31% decrease from 2020, next survey 2026

Thanks to Nathan Lauffenburger



Summer Acoustic Survey & AVO Index

- Preliminary results:
 - 18 transects, wider transect spacing and reduced trawling effort
 - Total biomass pollock decreased 25% from 2022 survey
 - More age 1-2 in EBS than in recent years, age 4+ fish still dominate
 - Acoustic vessel of opportunity (AVO) index is on the way



Thanks to Abigail McCarthy and Nathan Lauffenburger

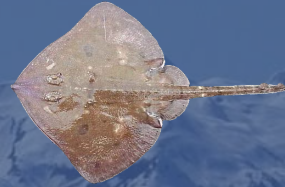


BSAI models reviewed for November assessments

| Stock | Type | Recommendations |
|--------------------------------|--------------|---------------------|
| EBS Pollock | Full Model | Yes, tier change |
| EBS Pacific Cod | Full Model | Yes, 2 models |
| AI Pacific Cod | Full Model | Yes, 5 models |
| Alaska Plaice | Full Model | Yes, 2 models |
| Northern Rock Sole | Full Model | Yes, 2 models |
| Greenland Turbot | Full Model | Yes, 3 models |
| Pacific Ocean Perch | Full Model | Yes, 2 models |
| Rougheye/Blackspotted Rockfish | Update Model | Yes, 1 model |
| *Harvest Projections | Final Models | Yes, biomass trends |

*harvest projections are finalized at this meeting and not reviewed in November

Harvest Projections

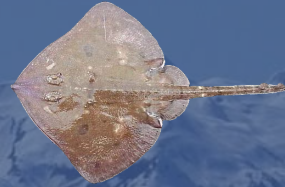


- **New!** Reviewed in September instead of November
- Stocks Evaluated (lead author):
 - Northern Rockfish (Paul Spencer), next full assessment 2025
 - Alaska Skate (Cindy Tribuzio), next full assessment 2025
 - Arrowtooth Flounder (Kalei Shotwell), next full assessment 2026

Thanks to Melissa Haltuch, Kalei Shotwell, Paul Spencer, Cindy Tribuzio



Harvest Projections



- Discussion & Recommendations:
 - Discussed lack of current survey information due to change in schedule and recommended coordination with survey presentations to include HP stocks
 - Team supported potential AFSC evaluation of sensitivity to earlier catch dates and subsequent catch advice
 - Team agreed with the authors' OFL and ABC recommendations



Proposed Specifications Team recommended (1 of 2)

Table 1. Plan Team Proposed recommended OFL, ABC for Groundfish in the Bering Sea and Aleutian Islands (metric tons) for 2024-2025

9/16/2024

| Species | Area | 2023 | | | Catch as of 12/31/2023 | 2024 | | | Catch as of 9/16/2024 | Plan Team Proposed 2025/2026 | | |
|---------------------|----------|-----------|-----------|-----------|---------------------------|-----------|-----------|-----------|--------------------------|------------------------------|-----------|-----------|
| | | OFL | ABC | TAC | | OFL | ABC | TAC | | OFL | ABC | TAC |
| Pollock | EBS | 3,381,000 | 1,910,000 | 1,300,000 | 1,310,591 | 3,162,000 | 2,313,000 | 1,300,000 | 1,229,404 | 3,449,000 | 2,401,000 | 1,325,000 |
| | AI | 52,383 | 43,413 | 19,000 | 3,744 | 51,516 | 42,654 | 19,000 | 4,431 | 53,030 | 43,863 | 19,000 |
| | Bogoslof | 115,146 | 86,360 | 300 | 125 | 115,146 | 86,360 | 250 | 23 | 115,146 | 86,360 | 250 |
| Pacific cod | BS | 172,495 | 144,834 | 127,409 | 126,458 | 200,995 | 167,952 | 147,753 | 104,170 | 180,798 | 150,876 | 131,262 |
| | AI | 18,416 | 13,812 | 8,425 | 3,398 | 18,416 | 12,431 | 8,080 | 3,570 | 18,416 | 12,431 | 8,080 |
| Sablefish | BSAI/GOA | 47,390 | 40,502 | n/a | | 55,084 | 47,146 | n/a | | 55,317 | 47,350 | n/a |
| | BS | n/a | 8,417 | 7,996 | 5,418 | n/a | 11,450 | 7,996 | 3,579 | n/a | 11,499 | 9,500 |
| | AI | n/a | 8,884 | 8,440 | 2,463 | n/a | 13,100 | 8,440 | 1,262 | n/a | 13,156 | 8,440 |
| Yellowfin sole | BSAI | 404,882 | 378,499 | 230,000 | 112,889 | 305,298 | 265,913 | 195,000 | 56,775 | 317,932 | 276,917 | 195,000 |
| Greenland turbot | BSAI | 4,645 | 3,960 | 3,960 | 1,276 | 3,705 | 3,188 | 3,188 | 736 | 3,185 | 2,740 | 2,740 |
| | BS | n/a | 3,338 | 3,338 | 795 | n/a | 2,687 | 2,687 | 436 | n/a | 2,310 | 2,310 |
| | AI | n/a | 622 | 622 | 481 | n/a | 501 | 501 | 300 | n/a | 430 | 430 |
| Arrowtooth flounder | BSAI | 98,787 | 83,852 | 15,000 | 7,276 | 103,280 | 87,690 | 14,000 | 8,030 | 104,270 | 88,548 | 14,000 |
| Kamchatka flounder | BSAI | 8,946 | 7,579 | 7,579 | 6,949 | 8,850 | 7,498 | 7,498 | 4,748 | 8,687 | 7,360 | 7,360 |
| Northern rock sole | BSAI | 166,034 | 121,719 | 66,000 | 27,212 | 197,828 | 122,091 | 66,000 | 25,411 | 264,789 | 122,535 | 66,000 |
| Flathead sole | BSAI | 79,256 | 65,344 | 35,500 | 8,991 | 81,605 | 67,289 | 35,500 | 10,764 | 82,699 | 68,203 | 35,500 |
| Alaska plaice | BSAI | 40,823 | 33,946 | 17,500 | 15,252 | 42,695 | 35,494 | 21,752 | 8,293 | 45,182 | 37,560 | 20,000 |
| Other flatfish | BSAI | 22,919 | 17,189 | 4,500 | 3,020 | 22,919 | 17,189 | 4,500 | 2,855 | 22,919 | 17,189 | 4,500 |

Sources: 2023 OFLs, ABCs, and TACs and 2024 OFLs and ABCs are from harvest specifications adopted by the Council in December 2022 and December 2023 respectively; 2023 catches through December 31, and 2023 catches through September 16, 2024 from AKR Catch Accounting.

Proposed Specifications Team recommended (2 of 2)

Table 1. Plan Team Proposed recommended OFL, ABC for Groundfish in the Bering Sea and Aleutian Islands (metric tons) for 2024-2025

9/16/2024

| | | | | | | | | | | | | |
|---------------------------------------|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Pacific Ocean perch | BSAI | 50,133 | 42,038 | 37,703 | 35,951 | 49,010 | 41,096 | 37,626 | 23,647 | 48,139 | 40,366 | 37,181 |
| | BS | n/a | 11,903 | 11,903 | 10,892 | n/a | 11,636 | 11,636 | 6,678 | n/a | 11,430 | 11,430 |
| | EAI | n/a | 8,152 | 8,152 | 7,791 | n/a | 7,969 | 7,969 | 6,723 | n/a | 7,828 | 7,828 |
| | CAI | n/a | 5,648 | 5,648 | 5,461 | n/a | 5,521 | 5,521 | 3,497 | n/a | 5,423 | 5,423 |
| | WAI | n/a | 16,335 | 12,000 | 11,807 | n/a | 15,970 | 12,500 | 6,749 | n/a | 15,685 | 12,500 |
| Northern rockfish | BSAI | 22,776 | 18,687 | 11,000 | 10,433 | 23,556 | 19,274 | 16,752 | 7,647 | 22,838 | 18,685 | 15,000 |
| Blackspotted/Rougheye Rockfish | BSAI | 703 | 525 | 525 | 607 | 761 | 569 | 569 | 414 | 813 | 607 | 607 |
| | EBS/EAI | n/a | 359 | 359 | 291 | n/a | 388 | 388 | 167 | n/a | 412 | 412 |
| | CAI/WAI | n/a | 166 | 166 | 316 | n/a | 181 | 181 | 248 | n/a | 195 | 195 |
| Shortraker rockfish | BSAI | 706 | 530 | 530 | 243 | 706 | 530 | 530 | 102 | 706 | 530 | 530 |
| Other rockfish | BSAI | 1,680 | 1,260 | 1,260 | 1,220 | 1,680 | 1,260 | 1,260 | 1,101 | 1,680 | 1,260 | 1,260 |
| | BS | n/a | 880 | 880 | 652 | n/a | 880 | 880 | 693 | n/a | 880 | 880 |
| | AI | n/a | 380 | 380 | 568 | n/a | 380 | 380 | 408 | n/a | 380 | 380 |
| Atka mackerel | BSAI | 118,787 | 98,588 | 69,282 | 66,613 | 111,684 | 95,358 | 72,987 | 59,475 | 99,723 | 84,676 | 66,165 |
| | EAI/BS | n/a | 43,281 | 27,260 | 24,862 | n/a | 41,723 | 32,260 | 27,247 | n/a | 37,049 | 30,000 |
| | CAI | n/a | 17,351 | 17,351 | 17,210 | n/a | 16,754 | 16,754 | 13,901 | n/a | 14,877 | 14,877 |
| | WAI | n/a | 37,956 | 24,671 | 24,541 | n/a | 36,882 | 23,973 | 18,326 | n/a | 32,750 | 21,288 |
| Skates | BSAI | 46,220 | 38,605 | 27,441 | 25,866 | 45,574 | 37,808 | 30,519 | 21,451 | 44,203 | 36,625 | 30,361 |
| Sharks | BSAI | 689 | 450 | 250 | 325 | 689 | 450 | 400 | 159 | 689 | 450 | 400 |
| Octopuses | BSAI | 4,769 | 3,576 | 400 | 148 | 6,080 | 4,560 | 400 | 163 | 6,080 | 4,560 | 400 |
| Total | BSAI | 4,859,585 | 3,132,067 | 2,000,000 | 1,776,469 | 4,609,077 | 3,476,801 | 2,000,000 | 1,578,210 | 4,946,241 | 3,550,691 | 1,998,536 |

Sources: 2023 OFLs, ABCs, and TACs and 2024 OFLs and ABCs are from harvest specifications adopted by the Council in December 2022 and December 2023 respectively; 2023 catches

BSAI Halibut Discard Mortality Rates (DMRs)

Table 12—Proposed 2024 and 2025 Pacific Halibut Discard Mortality Rates (DMR) for the BSAI

| Gear | Sector | Halibut discard mortality rate (percent) |
|-------------------|----------------------------------|--|
| Pelagic trawl | All | 100 |
| Non-pelagic trawl | Mothership and catcher/processor | 86 |
| Non-pelagic trawl | Catcher vessel | 67 |
| Hook-and-line | Catcher vessel | 9 |
| Hook-and-line | Catcher/processor | 9 |
| Pot | All | 21 |

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)



| Assessment Type | BSAI Stocks for 2024 | |
|--|---|--|
| Operational Full | EBS pollock EBS Pacific cod AI Pacific cod Alaska plaice | Northern rock sole Greenland turbot Pacific ocean perch |
| Operational Update | Aleutian Islands pollock Bogoslof pollock Kamchatka flounder Yellowfin sole Blackspotted rougheye rockfish | Flathead sole Other flatfish Sablefish (AK-wide) Atka mackerel Other rockfish Shortraker rockfish |
| Harvest Projections (review in Sept (PT)/Oct (SSC)) | Northern rockfish Arrowtooth flounder | Skates (Alaska skates) |
| Catch Reports | Octopus | Sharks |
| Other-Ecosystem Reports | <i>BSAI and GOA Forage fish (including squid)</i> | <i>BSAI and GOA Grenadiers</i> |



Actions for the Council on BSAI proposed specifications for 2025-2026

- Adopt proposed OFLs, ABCs and TACs
- Adopt proposed flatfish ABC reserves
- In considering TACs: account for State waters fisheries for Pacific cod and sablefish
 - Note % increase in BS cod
- Adopt proposed PSC limits and apportionments
 - Updated crab biomass estimates
 - Herring biomass estimate not available until December
 - Letter from ADFG on Chinook 3 River Index
 - Letter from NMFS on halibut abundance in EBS trawl survey
- Adopt final halibut DMRs for 2025-2026





Thank You!

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