C3 Joint Groundfish September Plan Team Report

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



October 2023, Presentation to the SSC



GF Plan Team Meetings, September 19-22, 2023

- Hybrid, see <u>e-agenda</u> for Joint Teams, then BSAI and GOA
- Vacancies on both teams, asking for a call for nominations to go out

BSAI Groundfish Plan Team Members:

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

GOA Groundfish Plan Team Members:

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|-----------------------------|----------------------|-------------------|-----------|
| Jim Ianelli | AFSC REFM (co-chair) | Sandra Lowe | AFSC REFM |
| Chris Lunsford | AFSC ABL (co-chair) | Nat Nichols | ADF&G |
| Sara Cleaver | NPFMC (coordinator) | Jan Rumble | ADF&G |
| Abby Jahn | NMFS AKRO | Paul Spencer | AFSC REFM |
| Craig Faunce | AFSC FMA | Kristan Blackhart | NMFS OS&T |
| Lisa Hillier | WDFW | Ben Williams | AFSC ABL |
| Pete Hulson | AFSC ABL | Cecilia O'Leary | AFSC RACE |



Joint Plan Team presentation summary (1 of 2)

| Topic | Presenter | Type | Action |
|----------------------------------|-----------------|------------------|---------------------|
| Research Priorities | Nicole Watson | Information | Yes |
| Halibut DMRs | Michael Fey | Information | In individual teams |
| SAFE Guidelines and Scheduling | Chris Lunsford | Information | Yes |
| ESP Overview and Update | Kalei Shotwell | Ecosystem Update | Yes |
| ESR Climate Update | Bridget Ferriss | Ecosystem Update | No |
| ESR CIE Review | Ivonne Ortiz | Information | No |
| Rockfish Genetic Stock Structure | Wes Larson | Information | No |
| EBS Krill Index | Mike Levine | Information | No |
| Draft 2024 ADP | Craig Faunce | Information | No |
| Longline Survey | Kevin Siwicke | Survey Update | No |
| GOA Trawl Survey | Ned Laman | Survey Update | No |
| Winter Acoustic Survey | Denise McKelvey | Survey Update | No |
| Summer Acoustic Pollock Survey | Dave McGowan | Survey Update | No |



Note: Underlined text has a link to presentation

Joint Plan Team presentation summary (2 of 2)

| Topic | Presenter | Type | Action |
|-----------------------------------|-------------------------------|-------------------------|--------|
| EBS/NBS Trawl Survey | Duane Stevenson Survey Update | | No |
| EBS BTS Survey Modernization | Stan Kotwicki | an Kotwicki Information | |
| Ecosystem Surveys | Lauren Rogers | Survey Update | No |
| Sablefish Model | Daniel Goethel | Model Update | No |
| Sablefish Fleet Changes | hanges Matt Cheng Informa | | No |
| M Priors Methods | Jim Thorson | Information | No |
| Archival Tag Methods | ds Jim Thorson Information | | No |
| One Step Ahead Residuals | Cole Monnahan | Information | No |
| Index Likelihoods | Cole Monnahan Information | | No |
| Retrospective Patterns | Meaghan Bryan Information | | No |
| Acoustic Trawl Survey Uncertainty | Sam Urmy Information | | No |
| Age and Length Sample Sizes | Pete Hulson Information | | No |
| Age Composition Methods | Thomas Helser | Information | No |



Note: Underlined text has a link to presentation

Data-Limited assessment working group

AFSC data-limited assessment working group met August 21, 2023:

- Identified high-priority Tier 6 stocks or stock complexes
- Discussed providing alternative data-limited methods for OFLs
 - Including how uncertainty could affect the OFL to ABC buffer
- Will present results to the September 2024 Joint Groundfish Plan Teams



Research Priorities

Highlights:

- Groundfish Plan Teams provide review of existing research priorities, new priorities submitted to the online portal, and additional PT priorities
- Teams will meet January 17, 2024 and develop list of priorities that will be distilled into 3-5 priorities and forwarded to the SSC

Recommendation:

 AFSC track the progress of AFSC led projects that address any of the 8-12 priorities selected by the Council



SAFE Guidelines and Scheduling

Highlights:

- Review of the stock prioritization and assessment definitions
- Update on AFSC contingency plan for stock assessments in the event of a US government shutdown

Recommendation:

- Council staff request feedback from the SSC and Council in October meeting regarding the preference for >20 day plan of action in response to the government shutdown
- Council staff consider ability to obtain feedback from federal SSC membership prior to government shutdown



ESP Overview and Update

Highlights:

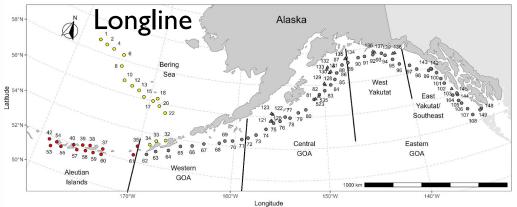
- Statistical importance, report reproducibility, data modernization, and climate readiness projects were reviewed
- Plan to begin Request For Information (RFI) process in 2024 to organize ESP contributions, National ESP Initiative workshops summary

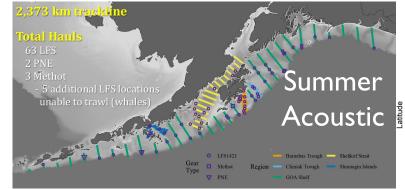
Recommendation:

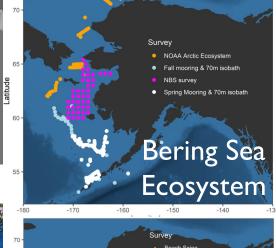
- Climate information within the ESP as a potential on-ramp be presented at the Council's CCTF November 2023 meeting
- Opportunity for product sharing between survey and ESP teams

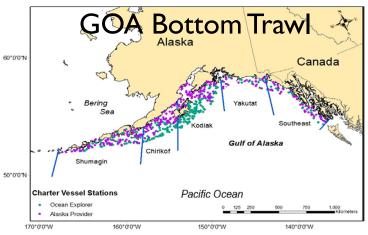


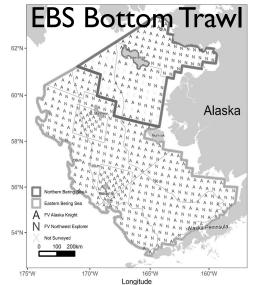
Surveys



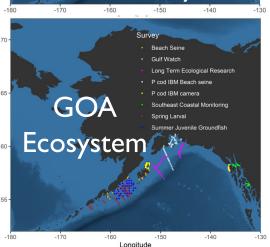












Longline Survey

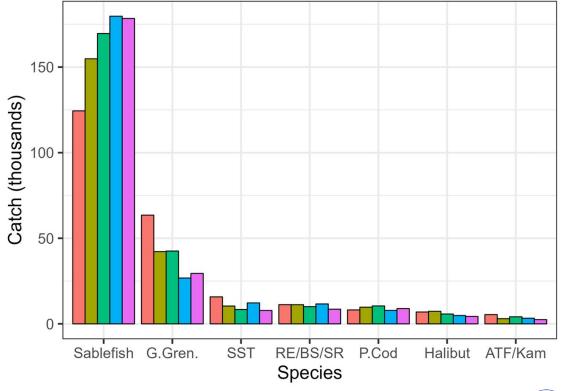
Highlights:

- Survey methods update and standard data collections
- Update on slinky pot project

Discussion:

- Escape rings, pot fullness, sablefish getting stuck
- Hook competition concerns







Year

2019

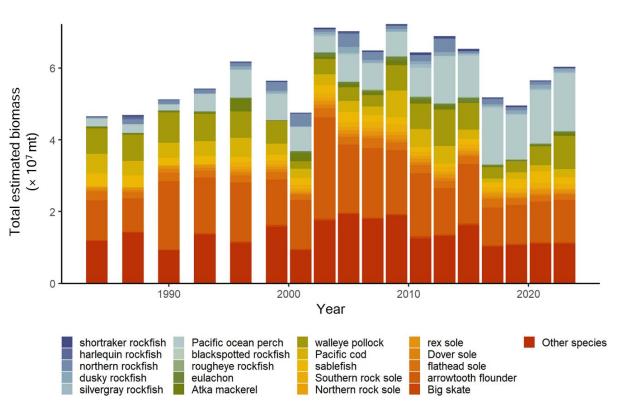
GOA Trawl Survey

Highlights:

- Survey methods update and standard data collections
- Sampling refined to reduce repetitive motion injuries
- Total biomass higher than 2021

Discussion:

 New GAP PRODUCTS schema for next year, include contacts





GOA Trawl Survey

Notable:

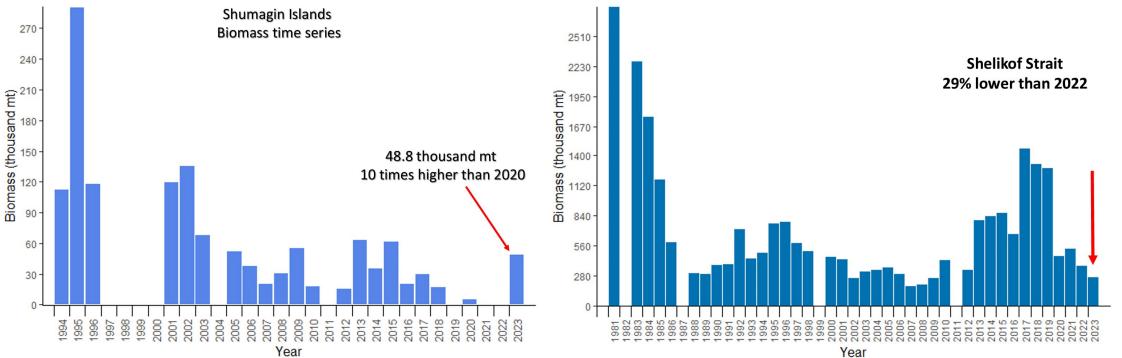
- Summary table useful for looking at all stocks together
- Showing % difference from previous survey
- Change relative to the long-term mean

| | | 100 |
|---------------------|--------------|------------------------------|
| Common name | % difference | Relative to longterm average |
| arrowtooth flounder | +5.3 | Below |
| Atka mackerel | +219 | Average |
| blackspotted RF | +0.6 | Average |
| Dover sole | +6.2 | Below |
| flathead sole | -21.7 | Below |
| northern RF | -65 | Below |
| Pacific cod | +32.5 | Below |
| POP | +7.9 | Above |
| rex sole | -17.6 | Average |
| sablefish | -39.8 | Below |
| shortraker RF | +14.4 | Below |
| silvergray RF | -0.3 | Above |
| southern rock sole | -10.4 | Below |
| walleye pollock | +74.3 | Above |
| eulachon | +14.1 | Below |
| big skate | +14.9 | Below |

GOA Winter acoustic-trawl survey

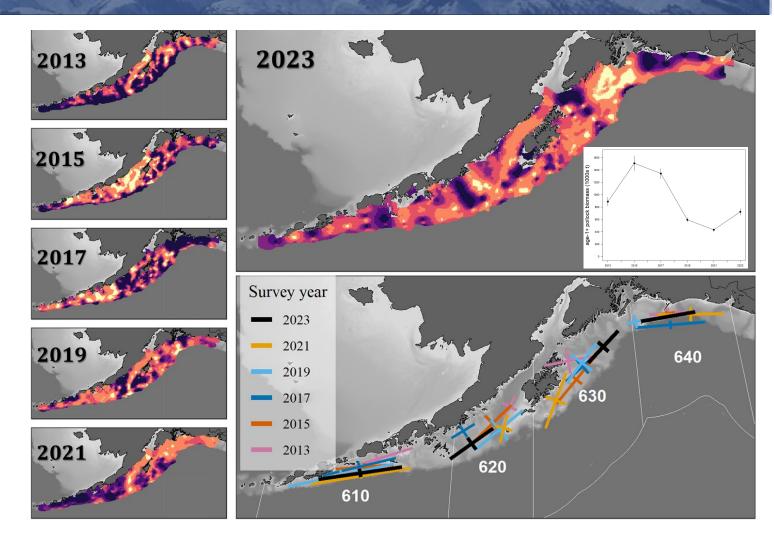
Highlights:

Pollock trawls conducted in February in Shumagins and March in Shelikof Strait



GOA Summer acoustic trawl survey

- Highlights:
 - Preliminary results of pollock, POP, and capelin biomass
 - Overview of DriX Uncrewed Surface Vehicle (USV)
- Discussion:
 - Cost of new tech



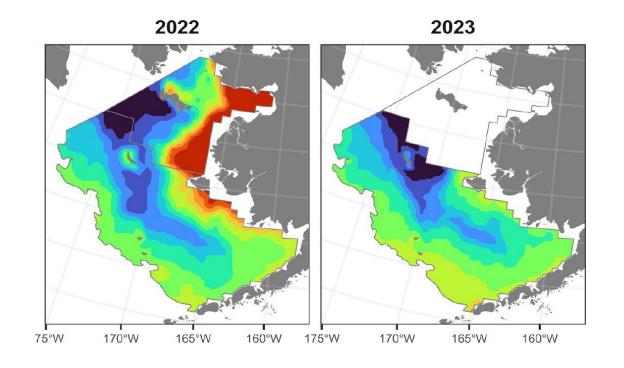
EBS trawl survey

Highlights:

- Survey methods update and standard data collections
- Cold pool similar to 2022 in extent, but colder and below average
- Fish biomass generally down relative to 2022

• Discussion:

 NBS survey still being processed at time of this presentation





EBS trawl survey

Notable:

- Summary table useful for looking at all stocks together
- Showing biomass and population estimates for 2022 and 2023
- Color coded for increase (green) or decrease (orange)

Biomass/Population Changes

| CONTROL CONTRO | | | EDO |
|--|------|------------------|---------------------|
| Common name | Year | Biomass (mt) | Population (x1,000) |
| walleye pollock | 2022 | 4,153,971 | 7,563,348 |
| | 2023 | 3,154,668 (-24%) | 5,685,500 (-25%) |
| Pacific cod | 2022 | 647,400 | 425,156 |
| | 2023 | 663,075 (2%) | 555,739 (31%) |
| yellowfin sole | 2022 | 2,039,968 | 8,660,407 |
| | 2023 | 1,393,379 (-32%) | 5,567,596 (-36%) |
| northern rock sole | 2022 | 1,294,581 | 7,408,458 |
| | 2023 | 1,380,684 (7%) | 6,657,558 (-10%) |
| flathead sole | 2022 | 703,375 | 2,442,797 |
| | 2023 | 594,851 (-15%) | 2,039,623 (-17%) |
| Bering flounder | 2022 | 6,237 | 36,007 |
| | 2023 | 6,813 (9%) | 33,736 (-6%) |
| Alaska plaice | 2022 | 385,294 | 660,307 |
| | 2023 | 358,845 (-7%) | 617,849 (-6%) |
| arrowtooth flounder | 2022 | 521,615 | 1,001,554 |
| | 2023 | 462,575 (-11%) | 861,345 (-14%) |
| Kamchatka flounder | 2022 | 29,699 | 45,293 |
| | 2023 | 24,875 (-16%) | 40,128 (-11%) |
| Pacific halibut | 2022 | 149,064 | 91,474 |
| | 2023 | 170,238 (14%) | 95,321 (4%) |
| Alaska skate | 2022 | 463,017 | 102,817 |
| | 2023 | 418,483 (-10%) | 98,290 (-4%) |
| Pacific ocean perch | 2022 | 126,805 | 242,638 |
| | 2023 | 18,914 (-85%) | 23,560 (-90%) |

Ecosystem Surveys

Highlights:

- Comprehensive update of many surveys for GOA and Bering Sea
- Update on recruitment indicators and new projects

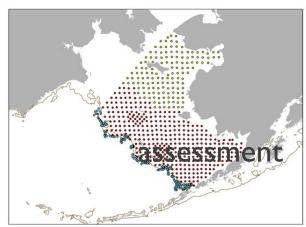
Discussion:

- Low abundance of large copepods in the EBS and potential relationship to the cold pool being more inshore (no data to explore this however)
- Databases exist in many areas (ESP/ESR, Github repos, manuscripts, etc.), but no centralized location, might improve uptake if more centrally available



Bering Sea Survey Modernization:

- Need to adapt surveys to the new reality
 - Design one survey for all 3 BS regions (EBS, NBS, Slope)
 - Increase survey efficiency, optimize effort allocation
 - Design flexible survey that will be responsive to data needs and adaptable to new technologies



- Need to redesign gear and change sampling methods
 - O Gear is becoming obsolete (doors, floats, nylon mech, bridles, etc)
 - Improve fishing methods (e.g., use autotrawl)
 - Need to decrease towing time from 30 to 15 min to reduce catch volume and number of tows with split catch

Bering Sea Survey Modernization: Call for stakeholder engagement in workshops

Interested in participating in initial meeting of Survey Modernization Working Group?

Call for public and industry engagement in all projects, but especially in project on survey bottom trawl gear and fishing methods redesign. Initial workshop is planned in late October. If interested please email:

Workshop coordinator: Nancy Roberson nancy.roberson@noaa.gov

For specific questions about the project you can contact:

Stan Kotwicki stan.kotwicki@noaa.gov

Lyle Britt lyle Britt <a href="mailto:lyl

Mike Litzow mike.litzow@noaa.gov

Nicole Charriere <u>nicole.charriere@noaa.gov</u> Shawn Russell <u>shawn.russell@noaa.gov</u>



Sablefish Model

Model Explorations:

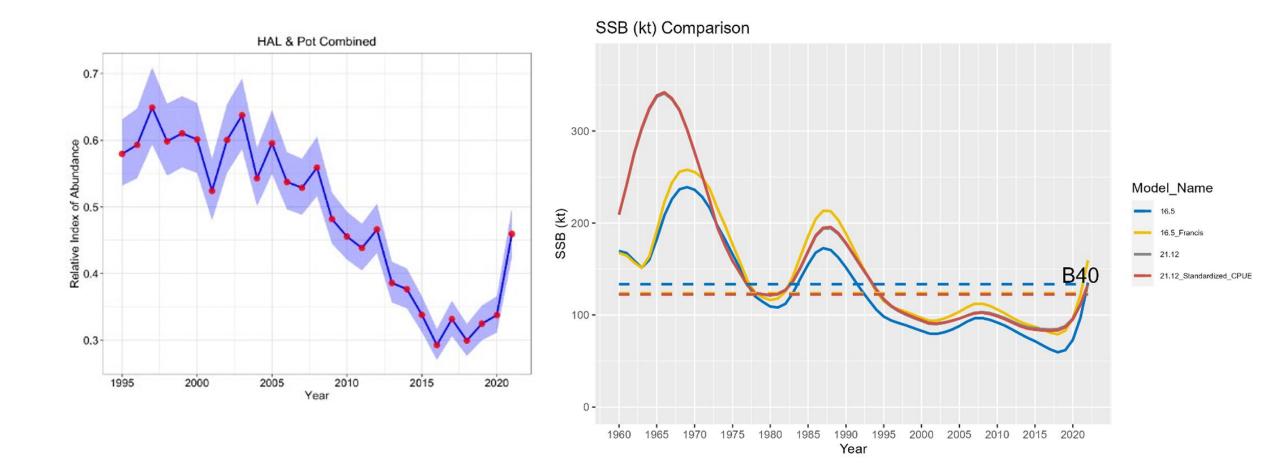
- Work continues on Template Model Builder (TMB) model version (from ADMB)
- Preliminary results of a spatially explicit sablefish model
- Nominal longline CPUE converting to standardized index with pot and longline

Results/Discussion:

- Limited impact of adding standardized index to the model
- 2024 explorations may include migrating to TMB, how to handle CPUE in future,
 address changes in fishery dynamics that may result from discarding small sablefish



Sablefish Model



Sablefish Model

Recommendation:

- Support for all proposed modeling changes in 2023 including replacing nominal CPUE with standardized index and using last year's whale depredation values
- Support for exploring sensitivity runs to start the model at age 3 versus 2 as an option for dealing with proposed small sablefish release
- Support to continue management strategy evaluations





Groundfish Plan Team Contacts:

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