



North Pacific Fishery Management Council

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Joint Groundfish Plan Team Meeting on Stock Prioritization

MINUTES

Virtual Via Zoom: February 2, 2023

BSAI Groundfish Plan Team Members present:

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

GOA Groundfish Plan Team Members present:

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

Plan Team members absent: Marysia Szymkowiak, Jan Rumble, Beth Matta, Michael Smith, Nat Nichols

Other attendees: Melissa Haltuch, Krista Milani, Molly Watson, Pat Malecha, Sherri Dressel, Kristen Omori, Abby Jahn, Maggie, Anne Vanderhoeven, Stephanie Zador, Ron Felthoven, Diana Evans, Kevin Siwicke, Diana Evans, Cara Rodgveller, Ernie Weiss, Dan Goethel, Dana Hanselman, Ian Stewart, Heather Nibert

Introduction

Team members and members of the public introduced themselves. Sara Cleaver and Diana Stram provided an overview of assignments and minutes. The document and powerpoint are posted to the eAgenda at: [Groundfish Plan Team Stock Prioritization Meeting.](#)

Stock Prioritization

Chris Lunsford and Melissa Haltuch presented the NOAA AFSC discussion paper on groundfish stock prioritization. The presentation included a review of the 2017 prioritization process that resulted in the recommendation of 10 groundfish stocks for reduced assessment frequency, a review of the AFSC's new reduced frequencies proposed for 13 additional groundfish stocks, an overview of proposed stock assessment definitions and associated level of review, and an update on the timing for revisions to the SAFE guidelines. Note that no adjustments were considered for crab stocks at this time. Discussion following the presentation centered on reviewing the proposed new assessment frequencies for the 13 stocks and the stock assessment definitions.

Assessment Frequency

The Teams agreed with the assessment frequencies proposed by the AFSC for all stocks, with the exceptions of AI Pacific cod and BSAI Northern rock sole. The following section describes Team discussion of the proposed frequency for each of the 13 stocks.

BSAI Atka Mackerel

The author noted in discussion that while a recruitment signal may appear in the fishery ages and influence the model results, it is not solidified until the survey ages become available. The author feels that a two year cycle would stabilize the model as complimentary data from the fishery and survey would be available at the same time.

The Teams agreed with the proposed assessment frequency change from an annual to a 2 year cycle to match the biennial survey data and allow for survey age data to be incorporated along with fishery age data. The authors noted that this assessment has had a problematic retrospective pattern but this has been due to the nature of survey data with a high CV so this pattern is unlikely to change in a biennial cycle. The authors do review age data as it becomes available and that exercise could highlight potential changes when presented in the off-year catch monitoring update. The Teams noted that, while applicable across all assessments, this stock in particular is an example where the authors could use their discretion to bring forward a full assessment should the data signals warrant. The Teams discussed what would constitute an "annual assessment" to meet the requirements as per the Steller sea lion management and agreed that the off-year partial assessment would satisfy this requirement.

GOA Atka Mackerel

The Teams had no objections to the proposed frequency change and recommended moving GOA Atka mackerel from a 2 to a 4 year assessment cycle.

BSAI Flathead sole

The Teams had no objections to the proposed frequency change and recommended moving BSAI flathead sole from a 2 to a 4 year assessment cycle. This would align with the GOA flathead sole cycle. The Teams noted that there may be concerns from industry because flathead sole are an Amendment 80 species but noted that discussion is outside the purview of the Teams.

Tier 6 assessment types

The Team discussion of the four Tier 6 stocks considered for reduced frequency also focused on what to include in Tier 6 ‘off’ year assessment products noting that it should differ from what is required under other tiers given that specifications are based on catch-only. **The Teams recommend that the catch monitoring update should be provided in all off-years with the resulting assessment type and timing cycle as listed below:**

Tier 6 on a four year cycle:

Year	Proposed assessment type
1	Operational/Full
2	Catch monitoring update
3	Catch monitoring update
4	Catch monitoring update
1	Operational/Full

GOA Octopus

The Teams had no objections to the proposed frequency change and recommended moving GOA octopus from a 2 to a 4 year assessment cycle.

BSAI Octopus

The Teams agreed with the proposed frequency change and recommended moving BSAI octopus from a 2 to a 4 year assessment cycle, but there were some concerns regarding Pacific cod consumption estimates that are used in the stock assessment. These estimates have not been updated in the assessment since 2016, but current estimates are available yearly from the CEATTLE and other models. The previous assessment author had expressed concerns with the predation method. **The Teams recommend the authors consider the latest available Pacific cod predation estimates in the next ‘Full’ assessment that will occur every 4 years, but also continue to explore alternative methods of deriving M in the assessment model.**

GOA Shark Complex

The Teams agreed with the proposed frequency change and recommended moving the GOA shark complex from a 2 year to 4 year assessment cycle. The Teams discussed how to dovetail the Only Reliable Catch Stocks (ORCS) with assessment frequency. The author did not see reducing frequency as increasing risk for the complex as a whole and noted that the potential breakout of Pacific sleeper sharks from this complex is still many assessment cycles away. The author supported a 4 year cycle, including sleeper sharks, and indicated that the non-spiny dogfish component of the shark complex ABC would likely remain stable. The author explained that the GOA shark complex is dominated by spiny dogfish (Tier 5) and that a year 3 partial could include an updated random effects model, thus providing the same level of management advice with less documentation to review.

BSAI Shark Complex

The Teams had some concern about the increasing trend in catch as shown in Figure 3 of the stock prioritization discussion paper; however, it was noted that catch is still well below ABC. The Teams noted that the catch:ABC metric should be treated differently for Tier 6 stocks than Tiers 1-5 stocks, because Tier 6 ABCs are catch and not biomass-based. The author informed the Teams that even if the Pacific sleeper shark portion of the GOA and BSAI shark assessments move to the ORCS method, it is unlikely that there will be large changes in ABC between assessments. The Team also noted that in the scenario where catch exceeded or approached ABC, this would be flagged during the catch monitoring update and would likely trigger a full assessment out of cycle. The Teams noted that if one shark assessment was moved to a four year cycle but not the other, the BSAI and GOA assessments could not be combined into a single SAFE document as recommended by the Teams and SSC.

The Teams agreed with the proposed frequency change and recommended moving the BSAI shark complex from a 2 to 4 year assessment cycle. The Teams noted that concerns related to increasing catches are mitigated by the catch monitoring updates and flexibility for assessments to be recommended and conducted during “off” cycle years.

BSAI Arrowtooth Flounder

The Teams agreed with the proposed frequency change and recommended moving BSAI arrowtooth from a 2 year to 4 year assessment cycle. The Teams discussed multiple lines of reasoning for supporting a 4 year full cycle for this stock (also see GOA Arrowtooth flounder), including the average change in ABC is 5%, the stock is fished well below the ABC, and the stock represents a low risk for overfishing. The Teams noted that the species is an important predator, and that role is captured by the annual CEATTLE multi-species stock assessment (appendix to the EBS pollock assessment) where changes in catch, biomass, and ABC are estimated annually for the stock (both using the model in single and multi-species mode). The Teams also discussed that multiple research efforts will continue to evaluate research stock assessments using climate and ecosystem covariates and explore trends in biomass over time in response to management and climate conditions (e.g., via ACLIM). The Teams agreed that the stock will be well monitored outside of the formal assessment process and can be brought forward in an off year in the somewhat unlikely event that substantial changes are observed.

GOA Arrowtooth Flounder

The Teams agreed with the proposed frequency change and recommended moving GOA arrowtooth from a 2 year to 4 year assessment cycle. The Teams discussed the low catch/ABC ratios, stability in the ABCs, and consistency between the projected and specified ABCs for this stock. The Team discussed that arrowtooth flounder play an important role in the ecosystem and are a component of multispecies models. The Teams agreed that these models can be updated with new data and are not dependent on the frequency of the stock assessments.

BSAI Alaska Plaice

The Teams had no objections to the proposed frequency change and recommended moving BSAI Alaska plaice from a 2 to a 4 year assessment cycle.

BSAI Northern Rock Sole

The Teams noted that this stock is an important example evaluated as part of the ACLIM project. There was concern that this stock had an average change in ABC from 2017-2021 of 21%. The Teams discussed the high variability in the assessment model over the past few cycles and expressed concerns for reducing the assessment frequency because of these unresolved model issues. **The Teams' recommendation differed from the frequency change proposed by the AFSC. The Teams recommended BSAI Northern rock sole remain on a 2-year cycle however, they recommended that the stock be reconsidered to be on a 4 year assessment cycle once model concerns are resolved.**

BSAI Yellowfin Sole

The Teams discussed several aspects of the yellowfin sole assessment cycle and noted that

- It is the largest flatfish fishery in the world
- Is the mainstay of the Amendment 80 fleet
- It has biological characteristics that are thought to be strongly linked to environmental conditions (and hence climate change) in how they grow, their spawning distributions, and availability to the survey area
- The catch/ABC ratio is 47%

The Teams noted that although climate change impacts on this stock are of concern, these types of impacts (e.g. changes in distribution, temperature-mediated growth) can likely be adequately monitored on a biennial basis. Additionally, the average annual change in ABC and the projected to actual ABC ratios have been low in recent years. **Applying the same criteria and rationale consistent with the other stocks recommended for reduced frequencies, the Teams agreed with the proposed frequency change and recommended moving BSAI yellowfin sole from an annual to a 2 year assessment cycle.**

AI Pacific cod

The Teams discussed that AI Pacific cod is currently a Tier 5 assessment and there are conservation concerns given declines in fishery-dependent and fisheries-independent data. Even though fishery-independent data are only available every other year for this stock, a coauthor noted that an annual cycle would still be prudent because of conservation concerns. The BSAI Team will continue to encourage the authors to bring forward the age-structured model for future consideration (see BSAI Team recommendations from [November 2022](#)). **The Teams' recommendation differed from the frequency change proposed by the AFSC. The Teams recommended AI Pacific cod remain on an annual cycle working towards adoption of a Tier 3 assessment.** If a Tier 3 assessment was adopted, and the stock appeared stable, the Teams suggested a biennial assessment frequency may be justified.

Assessment Definitions

Much of the Team discussion centered around the proposal to identify "benchmark" assessment types and how that differed from the "update" assessment type. The Teams noted that both types of assessments should fall under the broad category of "operational" stock assessments as defined by the 2018 Next Generation Stock Assessment Improvement Plan (NGSAIP). It was unclear what the level of review would be for each type. The Teams noted that major and minor changes in the model have been defined in the past using different metrics (e.g., Average Difference of Spawning Biomass) and are included in the naming convention of the model number. There was also discussion that results driven nomenclature

should be avoided because just using updated survey data could cause large changes in the model. The Teams found the definition of "benchmark" confusing and noted that this term's meaning varied broadly in some regions; also, it is not used in the NGSaip. The Teams also noted that in the current stock assessment process, an extensive review process for an assessment type may be initiated organically, or in response to Plan Team and SSC requests. Thus, there was some concern that effectively "benchmark" assessments may occur more frequently. The Teams also noted that the term "benchmark" seemed to align more with the "research" stock assessment category as defined in the NGSaip. There was discussion on how to distinguish between data only update assessments (i.e., turn-the-crank) and more intensive assessments along the lines of a research assessment that may align with a Center for Independent Experts (CIE) review.

The Teams focused the discussion on the "operational" category rather than the "research" category as the term research stock assessment implied an assessment that only supplements information rather than directly affecting management advice. The definitions put forward in the stock prioritization document were intended to balance the pressing need for efficiency and staff workloads, with the requirement to provide the best, timely, scientific information available to the Council. The Teams noted that the *nomenclature* of "benchmark" or "update" was less important than defining the activity (analyst time required) and the frequency of the assessment. Detailing the contents of the assessments and communicating what occurs in intervening years would help determine the level of review that would be required. The Teams generally agreed that the term "benchmark" was not required, but definitions need to allow for distinguishing between an assessment that needs intense review and one that needs a moderate level of review (e.g., "operational full" and "operational update"). The Teams also suggested consideration of the term 'informational' to define assessments or analyses that separately provide additional context for consideration in decisions such as setting the ABC below max permissible (e.g., ESR, Multi-species model appendix). The consensus of the Teams was to defer discussion of a set of revised assessment categorizations and descriptions for the 2023 September Plan Team meeting and that many details of the differences between assessment types could be captured in the SAFE guidelines.

SAFE Guidelines

Revisions of the SAFE guidelines are necessary for all assessment types to promote standardization. These revisions are anticipated to be created by an AFSC workgroup and will be provided following the adoption of new definitions for stock assessment products. These revisions are anticipated to be provided by September 2023 for Council review.

Outstanding Issues

The Teams discussed how to define the Tier 4-6 partial catch projection assessment. The Teams noted that for year 3 in Tier 4/5, the catch to survey biomass ratio would allow the assessment author to raise a concern, and that a partial (projection) that reruns the REMA model would likely change the ABC. The Teams noted that Tier 5 ABC is determined by survey biomass and running it through the REMA model.

The Teams recommended deferring this decision until after they have a better understanding of the SAFE guidelines under the new definitions for each tier level (primarily the difference between a full and partial assessment).

The Teams recommended that the catch monitoring update (comparing the catch update to ABCs) be provided during each "off" year for Tier 6. The Plan Team report presented to the SSC in December can include an automated table which would not require effort on the part of the authors. CM = catch monitoring in the updates of the Tier 6 frequency tables.

The Teams recommend deferring the decision about when the next assessment is an update or benchmark until September after draft guidelines are completed.

Public comment

Public comment was invited but none were forthcoming.