North Pacific Fishery Management Council

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Joint Meeting of the Groundfish Plan Teams for the Gulf of Alaska (GOA) and Bering Sea Aleutian Islands (BSAI)
MINUTES

November 14-18, 2022
Hybrid Meeting: Seattle, Washington, AFSC

BSAI Groundfish Plan Team Members:

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

GOA Groundfish Plan Team Members:

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

Introductions

The Joint meeting for the Groundfish Plan Teams ("Teams") began on Monday, September 14, 2022 at 9:00 am PST at the AFSC. Participation was both in person and offered remotely via Zoom. Roughly 50 people attended the meeting in person, but attendance varied throughout the meeting. All SAFE documents were posted to the AFSC draft assessments page and presentations given during the meeting were posted to the Teams' electronic agenda. All presentations are also linked in the header for each agenda item in this report.

Diana Stram provided updates on changes to the Spatial Management Policy from the October Council meeting. Sara Cleaver provided an overview of Team roles and responsibilities, and noted possible dates for the Groundfish Plan Teams to meet jointly in January or early February to provide recommendations on stock prioritization. The Teams' plan to meet jointly at the end of the November Plan Team meetings to debrief and circle back on several topics, added to the end of these minutes.

Future meetings: Dates for 2023 meetings are: September 19-22 and November 13-17.

Economic SAFE

Brian Garber-Yonts presented the November draft of the Economic SAFE Report. The Teams noted that the usual draft chapter was not available for the meeting. He noted that despite changes in staffing there are plans to continue the Economic SAFE Report but this was a transition year. The Economics and Social Sciences Program (ESSR) will be again seeking feedback on the most useful content for the chapter (and noted that it will be reviewed by the SSC at the February 2023 meeting). The AKFIN HD data explorer was introduced as a resource for downloading and exploring economic fisheries data. First Wholesale revenues and prices were down during 2019-2021 (COVID period) and inflation also had an impact on Wholesale Economic Value estimates, i.e., increasing prices offset decreasing volume. The Teams inquired about the timing of getting economic information for EPRs and ESPs earlier and whether the middle of October was possible. They noted that this earlier timing should be possible, but fish ticket data is sometimes delayed. ESSR is trying to speed this up. The process for inflation adjustment for fisheries was discussed and whether the ESSR incorporated international inflation or if only U.S. inflation was included. For the Economic SAFE Report, the ESSR incorporated international prices using the exchange rates to weight prices for inflation and consumer prices were adjusted by the consumer price index (CPI). For the Economics SAFE Report the ESSR was consistent with the inflation adjuster across the board (across all prices). Further discussion centered around whether present inflation adjusted prices should be included. The ESSR could provide adjustments, but it was decided that multiple versions of every index would be burdensome for both the users and the ESSR. The HD data explorer would be a good place to show both versions of prices, but the report itself would double if both versions were reported. The Teams suggested that the ESSR could present adjusted numbers in years when inflation was particularly important.

Sablefish

Kalei Shotwell presented the Ecosystem and Socioeconomic Profile (ESP) of the sablefish stock which included an update on the report card and "traffic light" status indicators. The Teams discussed the importance of the indicators presented and whether they are data driven indices or model based, and highlighted the need to identify regimes in the data, especially with respect to recruitment. The Teams discussed the 2 potential covariates for sablefish recruitment.

A full update for the sablefish ESP is scheduled for 2023 following a 'request for indicators' process.

Dan Goethel presented the full assessment of sablefish. The Teams supported the authors' efforts to update code used to perform data pulls, filtering, and processing and the inclusion of complete documentation of methodology, which aligns with AFSC initiatives to improve transparency and reproducibility of the entire assessment process. The fishery whale depredation model and associated time series of total fishery depredation estimates were updated and rerun with all the data available since the last full analysis in 2016. There were no changes to the assessment methodology and the authors re-ran Model 21.12 with updated data inputs and reweighting using the Francis method. The Teams were also supportive of simulation work planned to explore how best to address the rapid change in fishery composition (e.g., through the addition of a pot gear fleet in the assessment model). The Teams discussed recruitment uncertainty along with the associated moderate recruitment retrospective pattern. Given recent trends, it is anticipated that recruitment estimates will stabilize as recent year classes reach more fully vulnerable ages in the longline survey and fishery. The Teams inquired about the drivers of the large recent year classes. The author noted that there is limited understanding of sablefish recruitment, though temperature (e.g., marine heat waves) or food/predation (i.e., the opportunistic nature of sablefish feeding strategies) may both play roles. Understanding sablefish recruitment dynamics is an ongoing priority for the sablefish ESP team and research is ongoing to link ESP datasets to develop more robust recruitment indices or predictors.

The Teams expressed appreciation for the detailed appendices included with the assessment.

The Teams noted a concern about the declining proportion of the population residing in the age plus group over time in the fishery age composition data. Given that the figures provided were presented in proportions, it was unclear whether the decline in the plus group was an actual decline in abundance or more reflective of a relative increase in younger fish (i.e., due to a handful of historic year classes entering the population since 2014) compared to older fish.

The Teams recommended an evaluation of trends in abundance of the plus age group from the longline survey and fixed gear fishery along with a figure showing the plus group absolute abundance (as opposed to the proportions) in the future.

Discussion also explored whether alternate management procedures might be warranted for sablefish, given their long-lived nature, cyclic recruitment dynamics, and dependence on recent year classes that are only partially mature. For instance, harvest control rules that would allow recent year classes to reach fully matured ages at higher abundance would better support expansion of the age structure, which may be desirable for such a long-lived species. The Teams support exploring the issue of a protracted age structure and computing a $B_{40\%}$ value that better accounts for fully mature age classes. The assessment author noted that a closed-loop simulation project is planned to explore the efficacy of the NPFMC $B_{40\%}$ HCR, pending a search for a qualified post-doctoral researcher.

The Teams also discussed how the model utilizes fishery CPUE and noted that the incorporation of time-varying selectivity may complicate the use of CPUE data. Mainly, as is done in many tuna assessments, it may be more appropriate to implement an 'index' fishery that utilizes a time-invariant selectivity and density-weighted size and age compositions (i.e., where the composition data by region is weighted by the CPUE and not the catch) along with the associated CPUE index (Maunder et al., 2020).

The Teams agreed with the authors' recommended model, 21.12, and the resulting ABCs and OFLs with the whale depredation decrements included. The Teams also agreed with the apportionment strategy previously recommended by the SSC. For 2023, sablefish is currently in the third year (75%) of a 4-year stair step, which aims to avoid too rapidly transitioning from the previous fixed-apportionment strategy to the author and SSC recommended 5-year survey average strategy.

Debrief & Further Discussion

The Teams met together again on Friday to debrief the meeting and circle back on items that came up during the course of the meeting in the BSAI and GOA. Diana Stram and Sara Cleaver solicited feedback on the new roles assigned to Team members this week and noted that overall there seemed to be increased discussion on both teams and participation has improved.

Diana Stram presented gifts for the bottom trawl survey group to show appreciation for their efforts this year to get survey results distributed expeditiously. The Teams appreciate the efforts of all of the people involved in getting data to stock assessment authors under a tight timeline in the fall and noted that the Teams will be recognizing each of the groups on a rotating annual basis over the next few years. The Teams also recognized that this is Kresimir Williams' last meeting as a Plan Team member, and thanked him for his contributions.

The Teams plan to hold a hybrid meeting February 2nd to review NMFS' recommendations on Stock Prioritization. In addition to stock assessment frequency, the AFSC will bring forward new definitions for assessments along with what is required to complete for each assessment type. The Teams discussed the current definitions especially in regards to what a full update assessment will be and look forward to a new approach that will make completing and reviewing assessments more efficient.

This year there was concern regarding posting assessments on time and ensuring sufficient time is allowed for both Team and public review. The Teams discussed altering deadlines but recognize the challenges in producing these assessments under the current schedule. Authors have automated as much as they can prior to receiving survey data, and the Teams highlighted the benefits of recent efforts regarding reproducibility and automation within the assessment process. However, the condensed timeline between when data are available and the assessment posting deadline still poses challenges for authors. Additionally, Team members are overloaded with assessment review and noted that the expectation that authors have new models every year should be alleviated, as reviewing several models for several assessments within a few days can lead to model exhaustion for reviewers. The Teams noted that the stock prioritization meeting in February will hopefully result in efficiencies that will help address this issue moving into the future.

Working Groups

In September, there was a discussion of forming new Teams working groups. The Teams clarified that the difference between AFSC working groups and Plan Team working groups centered on whether the focus of the group's considerations could lead to a potential policy recommendation (e.g., modifications to existing harvest control rule) or is purely technical in nature (e.g., model weighting best practices). The Teams brought forward several working group suggestions. There is a lot of research currently underway that should not be duplicated by a working group, rather, any working group should add efficiency and assist in the process of communicating any advice that comes out of these working groups to management bodies. The membership of these groups should be broad-reaching and not just be made up of AFSC staff but could be composed of Plan Team and SSC members as well. **The Teams requested the SSC recommend the AFSC (and ADF&G, where appropriate) to consider two proposals for working groups: 1) a WG focused on data-limited/Tier 6 methods, and**

2) A working group that addresses current policies affecting harvest control rules and develop new approaches for accounting for changes in ecosystems related to climate change, including the exploration of environmental data to help inform recruitment.

The Teams noted there are projects already funded that may be of benefit to both of these working group objectives and encourage researchers to work together on these issues.

Risk Tables

This year, the BSAI Team recommended a reduction from maximum permissible ABC for 5 stocks in the BSAI, based on the application of the risk table. The Teams continue to note that scoring for risk tables as well as the associated level of reduction of the ABC is subjective and based on expert judgment, highlighting that there is no guidance on how to interpret the risk tables or how to calculate ABC reductions. For this reason, Team members noted that there are likely differences in the way risk tables are used across authors as well as across Teams. Despite these issues, the Teams felt authors provided strong rationale for their reductions and supported the approach taken in the BSAI. The Teams and authors agreed that it is helpful to have a tool which qualitatively describes uncertainties. For assessments in Tiers 1-5 with reductions below maximum permissible ABC, the $maxF_{ABC}$ and the F_{ABC} must be specified.

Ecosystem Status Report Indicators

The ESR authors requested feedback following Team deliberations to help identify useful indicators to highlight this year. The ESR group generates a large volume of indicators annually and highlighting specific contributions that emerge during Team deliberations is helpful for future planning, especially if specific indicators overlap multiple stocks. Team discussion noted that index of fish condition comes up in many assessments and a standardized approach for defining condition and providing for as many stocks as possible would be useful. Other notable ESR topics the Teams noted this year include:

- An index focusing on pH and oxygen levels along with spatial/temporal trends and if oxygen minimums are a concern.
- Additional indices on eddy kinetic energy and potential influence on recruitment
- Fish condition factors and indices that evaluate changes in weight at age
- Additional diet information such as Pacific cod stomach samples from the fishery at different temporal/spatial scales than those currently collected in surveys.
- Additional temperature data at depth and along the slope break to better understand effects of marine heatwave events
- Developing a recruitment transport index for rockfish.

Other topics

The Teams were asked to respond to how observer information can be better presented to the Council review bodies. In previous years, the Observer Program used to provide a summary of the Annual Deployment Plan (ADP) but the topics covered did not include current issues that authors or stock assessments were dealing with. The Teams discussed an alternative approach that focuses on a presentation on current fishery related issues in the BSAI/GOA that directly affects fishery data being used in assessments and providing a summarized update to the Teams. This information can likely be gathered by the Observer Program, assessment authors, and AKRO staff communicating better to identify potential issues. This differs from the ADP which is more focused on presenting plans for the future. The Teams agreed on the importance of better communications to identify and share gaps between analysts' findings and how they might potentially provide advice on how to improve data collection programs.

The Team recognized staffing shortages in the Age and Growth program (particularly age readers) and how the program will likely not be able to make all the requests for next year. The Team noted that it is critical for authors to be able to continue to obtain the data this program produces.