



# North Pacific Fishery Management Council

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

November 2019 Alaska Fisheries Science Center, Seattle, WA

North Pacific Fishery Management Council  
605 West 4<sup>th</sup> Avenue, Suite 306  
Anchorage, AK 99501

Committee Members in attendance:

### BSAI Team

Grant Thompson	AFSC REFM (co-chair)
Steve Barbeau	AFSC REFM (co-chair)
Steve MacLean	NPFMC (coordinator)
Mary Furuness	NMFS AKRO
Alan Haynie	AFSC REFM
Allan Hicks	IPHC
Lisa Hillier	WDFW
Kirstin Holsman	AFSC REFM
Andy Kingham	AFSC FMA
Brenda Norcross	UAF
Kalei Shotwell	AFSC ABL
Chris Siddon	ADF&G
Jane Sullivan	ADF&G
Cindy Tribuzio	AFSC ABL
Vacant	USFWS

### GOA Team

Jim Ianelli	AFSC REFM (co-chair)
Chris Lunsford	AFSC ABL (co-chair)
Sara Cleaver	NPFMC (coordinator)
Obren Davis	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
Marysia Szymkowiak	AFSC REFM
Ben Williams	ADF&G
Kresimir Williams	AFSC RACE
Vacant	USFWS

Members absent: None

## Administrative

**September 2020 Team meeting:** The September 2020 Plan Team meeting will be held September 15-18, at the Alaska Fisheries Science Center, Seattle.

**November 2020 Team meeting:** The November 2020 Plan Team meeting will be held November 16-20, at the Alaska Fisheries Science Center, Seattle.

**Documents and presentations:** All documents provided prior to or during the meeting as well as presentations given during the meeting were posted to the Teams' [electronic agenda](#).

**WebEx broadcast:** Remote participation via WebEx was available for all sessions. Webex attendees did not all register with their full name, so a complete attendance list is not possible and names are recorded as they were shown. Attendees via WebEx included: Annika, Arne, Ernie Weiss, Hunter, Jon Warrenchuk, Katy, Mike Szymanski, Pat, Paul Wilkins, Cara, CFH, Erik Velsko, Ali Whitman, Andy

Kingham, Lenny Hertzog, Asia Beder, Nicole, Curry Cunningham, Diana Stram, Dick Curran, Steve, Kevin, Lauren Rogers, Paul Wilkins, Molly.

Other attendees may have been present via WebEx but not noted by recorders.

**Introductions:** The Joint meeting of the Gulf of Alaska (GOA) and Bering Sea Aleutian Islands (BSAI) Groundfish Plan Teams (“Teams”) convened Tuesday November 12 at 9:00 am at the Alaska Fisheries Science Center in Seattle, Washington. Introductions were made. A sign-in sheet was passed around for members of the public. Attendees included: Matt Robinson, Julie Bonney, Shannon Carroll, Austin Estabrooks, Anne Vanderhoeven, Kristian Olsen, Blake Burkholder, Brent Paine, David Witherell, Ingrid Spies, Carey McGilliard, Wayne Palsson, Kenny Down, Ruth Christiansen, Joshua Baine Etherton, Stephani Zador, Jim Thorson, Craig Cross, Beth Stewart, Bill Clarke, Bob Alverson, Keith Bruton, Todd Loomis, TJ Duncan, Kerim Aydin, Elizabeth Siddon, Landry Price, Dan Falvey, Chad See, Scott Kent, Charlotte Levy, Bridget Ferriss, Mary Beth Tooley.

**Minutes guidelines:** Grant Thompson reminded Team members about transparency in drafting their minutes and comments within the meeting (discussions should be for all to hear and not electronic, etc). The most updated guidelines for minutes are located on the electronic agenda.

## Sablefish

The Alaska sablefish presentation was given by Dana Hanselman. There were no changes to the assessment model. The authors recommend an ABC for 2020 that is 25% greater than 2019, which reflects a 57% decrease from maxABC. The authors’ choice of a 25% increase is equal to the past maximum increase in ABC, which occurred in 2003. This recommended ABC results in a constant fishing mortality rate of 0.044 between 2019 and 2020. The Team continues to support the whale adjustment, which has become standard practice for this stock. Concerns were raised over the ability to estimate whale depredation as the predominant monitoring for hook-and-line shifts from human observers to electronic monitoring. Rationale for additional reductions from maxABC were summarized in the risk table. Reasons included protection of older fish, uncertainty in recent large recruitment events, uncertainty in maturity estimates, and reliance on young fish to comprise a large portion of the spawning biomass.

The Teams are concerned about the current model’s persistent positive retrospective bias and poor fits to abundance indices in the model. The Teams discussed the appropriateness of fishery CPUE as an abundance index given the size-selective nature of the fishery and the inconsistent trends between this index and the other fishery-independent indices and anecdotal evidence of increased abundance due to recent strong recruitment. The Teams agreed that until strong rationale for removing this index is developed, these divergent patterns do not warrant excluding it from the model. A range of potential model developments was discussed with respect to the treatment of recruitment, including evaluating selectivity on young fish and exploring age-specific or time-varying natural mortality. In particular, selectivity may be changing if young fish are deeper than usual; however, the authors have already conducted numerous explorations of selectivity and have yet to find a better-fitting parameterization.

The authors reported asynchronous recruitment between Federal waters off Alaska, off the West Coast, in British Columbia, and in Alaska state-water fisheries. Federal assessments are reporting strong 2014 and 2016 year classes and BC and State of Alaska data show strong 2013 and 2015 year classes. Discussions with State age readers suggest this can be explained by otolith edge effects and work has been ongoing to resolve this issue using Federal known-age samples. The Teams noted the importance of resolving this issue quickly, given the age-based assumptions about weight-at-age and maturity in stock assessments.

Extensive discussion occurred regarding the determination of OFL by area and the relatively high bycatch of sablefish in the Bering Sea trawl fisheries in 2019. The authors provided historical background on the

evolution of OFL determinations for sablefish and included OFL options requested by the SSC. Since 1996, sablefish have been managed Alaska-wide, with ABCs determined by sub-area and OFLs set separately for the BS, AI, and GOA since 1995. Three options were presented: 1) status quo; 2) combine the BS and AI; 3) an Alaska-wide specification. Some options may provide management benefits or efficiencies, but the authors did not have the appropriate information or data to recommend a scientific basis or a conservation concern for one option over another. The Teams discussed potential biological concerns over spatial structure including spawning aggregations, productivity, and concentrated harvest on the 2014 and 2016 year classes. Additionally, public comment indicated the potential for a separate stock in the AI and suggested that the current ABC calculation does not account for selective harvest of larger fish, nor does it protect young fish. However, the Teams had no specific conservation concerns to warrant an OFL recommendation. From a management perspective, sablefish are managed on an Alaska-wide stock basis and the OFL should be managed to the stock level. Concerns were expressed that, without management controls in place on a smaller scale, there would be no mechanism to regulate regional bycatch. Bycatch of 2014 and 2016 year classes were highlighted as a conservation concern for which the Council could consider additional bycatch controls. Public comment indicated that trawl fleets were actively avoiding sablefish bycatch, with the caveat that they must balance this effort with avoiding bycatch of other species like salmon and halibut. Considerable uncertainty exists as to whether this is a biological concern or allocation issue, and the Teams suggested following the Council's spatial management policy to resolve this issue.

**The Teams agreed with the authors' recommended ABC for 2020, which is a 57% reduction from maxABC and a 25% increase from the 2019 ABC.**

**The Teams recommended Option 2 for the OFL specification, combining the BS and AI OFLs. While the Teams support Option 2, they also recommended following the Council's spatial management policy, including the development of management controls to mitigate regional bycatch.**

Combining these OFLs will make the sablefish OFLs more consistent with other stock assessments and consistent with FMP areas. NOAA General Counsel advised that OFLs are defined at a stock level but there is discretion under the National Standard guidelines that specifications can be set to allow for operational feasibility and aligning OFL by FMP can be considered operationally feasible.

**The Teams recommended that the authors examine poor fits and residual patterns in the abundance indices.**

**The Teams recommended that the authors explore alternative methods to account for the 2014 and 2016 year classes, including pulse or age-specific natural mortality, time-varying selectivity, and sex-specific patterns in recruitment events.**

**The Teams recommended that the authors continue to include retrospective recruitment plots (aka "squid plots") to determine when estimates of large recruitment events stabilize.**

It may also be useful to create a plot with the retrospective estimates of the recruitment deviations (y-axis) for various cohorts when they were specific ages (x-axis). This might help to identify if there is a consistent pattern of over- or under-estimation of the size of a cohort when the cohort is young with few inter-annual observations, and at what age the estimated deviation of the cohort begins to stabilize. An example plot can be seen in Figure 58 of the [stock assessment document for Pacific hake](#).

**As sablefish biomass continues upward to a level that history will undoubtedly remember as the "Hanselman High," the Teams commend the outgoing senior author for his many years of leading the assessment efforts for this stock.**

## Economic SAFE Report

Ben Fissel of AFSC presented the Economic SAFE Report. The Report updates available economic information for 2018; as always there is a one-year delay in most economic data although there are now 2019 current-year price projections included.

Ben presented the core content of the Economics SAFE Report and indicated some changes in the overall content of the report. Due to delays in the arrival of finalized data, the catch share performance metrics and community section will no longer be included in the Econ SAFE and instead will be provided in separate documents. The report now also includes economic information based on the A80 economic data report (EDR) and will include information based on the GOA trawl (new) and Chinook A91 EDRs. Due to changes in the AFSC website, the data underlying the Econ SAFE will now be publicly available through the AKFIN Apex reporting system (<https://reports.psmfc.org/akfin>) as well as the Pac States E-journal of Sci Visualization (<https://psesv.psmfc.org/>).

Ben presented findings from the report card metrics. Despite low aggregate prices, real first wholesale values for groundfish Alaska-wide have remained high. Notably the share of AK resident revenues went down, driven by trends in the species that the Alaska-based fleet predominantly targets - sablefish and Pacific cod. Exchange rates remain high, creating a headwind for the Alaska fishing industry in terms of selling fish outside of the U.S.

Whereas total catches across Alaska groundfish fisheries decreased by 3% from 2017, the aggregate value increased in the BSAI and decreased in GOA, with substantial differences in changes of species-level catch. In the BSAI, values were stable for Atka mackerel and rockfish and values increased for pollock, Pacific cod, and flatfish. In the GOA, values increased for pollock and rockfish and decreased for Pacific cod, sablefish, and flatfish.

Ben also presented breakdowns for each of the groundfish FMP species in terms of market and price trends and volumes. Pollock prices have rebounded after declines in 2016 and 2017 that were driven largely by lower prices for head-and-gut fillets that were due to large inventories. Pacific cod saw a substantial price increase from 2018 to 2019 due to global supply constraints; these price increase helped to increase BSAI values for Pacific cod despite volume increases but were not large enough to offset volume declines in GOA. Sablefish saw substantial declines in average prices driven by increased landings of small fish, driving down average prices. Most flatfish prices were increasing in 2018, with the exception of arrowtooth which may be affected by the tariff disputes. Similarly, rockfish may be caught up in the trade dispute with 2019 price projections showing a slight decrease. Atka mackerel prices decreased slightly in 2018 but remain strong; projections indicate 2019 prices may marginally decrease.

Ben also presented results examining the accuracy of previous (2018) price projections. Price projections for ex-vessel prices are based on models of year-to-date unadjusted ADF&G fish ticket prices that are used to estimate an adjusted annual price. The model uses price data from much of the year (through September) to estimate what the price will be for next year. In general, the price projections were within one cent of the actual average prices for the groundfish species. Sablefish GOA fixed gear prices had the largest discrepancy between projected and actual prices in terms of absolute values but were actually in line with the accuracy of the other projections given the scale of sablefish prices. The sablefish price projections do not include size-based pricing.

**The Joint Team recommended that, in the future, the revenue decompositions that are included in the BSAI and GOA Intro be presented as part of the November Economics Team presentation.**

## Risk table

In response to an SSC request, the Teams evaluated the risk table for each full assessment and noted important concerns or issues associated with completing the table. The Teams noted that summarizing the concerns listed in the risk table is helpful as a decision framework for potential changes to ABC. The risk table approach fostered increased collaboration between scientists with different expertise and more formally brought ecosystem considerations into assessment deliberations. However, several common questions were brought forward throughout the discussions regarding the individual risk tables. Specifically, the Teams discussed the following:

- Whether an overall elevated risk level ( $>1$ ) mandates a reduction in ABC, and, more generally, the relationship of the risk level to the amount of reduction (if any);
- How to document changes that may not warrant higher levels of precaution, specifically when an overall elevated level of risk ( $>1$ ) does not lead to a reduction in ABC (e.g., BSAI northern rockfish, GOA POP, GOA arrowtooth flounder);
- The appropriateness of the overall level of risk being based on the maximum value across the categories, such that scores of 4, 4, 4, and 4 would be the same as a score of 1, 1, 1 and 4;
- Whether to state a default level of no risk ( $=1$ ) or an unknown level of risk when there is no information to evaluate the risk level for a given category (this was of particular concern for Tier 5 and 6 stocks);
- How to determine the relative influence of stock-specific versus indirect ecosystem indicators for setting the risk level (e.g., EBS Pacific cod, BSAI northern rockfish);
- How many direct or indirect ecosystem indicators would constitute an elevated concern;
- How evaluations of fishery performance indicators determine risk to stock productivity;
- Delineating issues that fall under more than one category;
- Whether every item, positive or negative, listed in the context of the risk table necessarily constitutes a “concern” (e.g., for Alaska sablefish, is an unusually large year class necessarily a “concern” simply because it is unusual?);

Despite the deliberations, the Teams agreed, in all cases, with the authors' decisions on the designated levels for each category in the risk table. Results of the individual stock levels, overall score and proposed reduction are compiled in the following table. Please refer to the minutes for the individual stock as well as the risk table discussion in the Harvest Recommendations section of the respective SAFE chapters for more information regarding the risk table levels, proposed reductions, and issues identified by the authors.

Table of stock-specific risk table levels.

Stock	Assessment related	Population Dynamics	Environment Ecosystem	Fishery Performance	Overall	Proposed Reduction
Sablefish	2	3	2	3	3	57%
EBS pollock	1	2	2	2	2	43%
GOA pollock	2	1	1	1	2	10%
EBS Pacific Cod	1	1	2	1	2	*
AI Pacific cod	1	1	2	1	2	*
GOA Pacific cod	2	2	2	1	2	*
BSAI Northern Rockfish	2	1	2	1	2	0%
GOA POP	2	2	1	1	2	0%
GOA Arrowtooth	1	1	2	1	2	0%
Yellowfin sole	1	1	1	1	1	0%
Alaska Plaice	1	1	1	1	1	0%
BSAI Atka Mackerel	1	1	1	1	1	0%
GOA RE/BS	1	1	1	1	1	0%
GOA Other Rockfish	1	1	1	1	1	0%
GOA Shortraker	1	1	1	1	1	0%
GOA Atka Mackerel	1	Unknown	1	1	1	0%
GOA Octopus	1	1	1	1	1	0%
GOA Skate	1	1	1	1	1	0%

\* Authors declined to provide a recommendation and deferred to the SSC.

Deliberations regarding the risk tables were quite time-consuming during the week, perhaps because this is still a developing process. The Teams recognize that the risk table may benefit from additional guidance and may evolve as it is further evaluated and applied. The Teams noted that discussions could be simplified if the process to determine levels of risk was decoupled from the decision to propose a reduction and the associated amount. As the risk table process develops, perhaps a decision table would be useful for evaluating the potential for a reduction if there were successive designations of elevated risk levels for a given category.

**The Teams recommended that authors continue to fill out the risk tables for full assessments.**

**The Teams recommended that adjustment of ABC in response to levels of concern should be left to the discretion of the author, the Team(s), and/or the SSC, but should not be mandated by the inclusion of a >1 level in any particular category.**

**The Teams request clarification and guidance from the SSC regarding the previously noted issues associated with completing the risk table, along with any issues noted by the assessment authors. The Teams plan to discuss the risk table process at the September meeting.**