

Draft SSC Report April 2024



Balance of SSC Report

SSC Administrative Discussion

- The SSC received a planning update for the Climate Scenario workshop to be held in June 2024.
- Franz Mueter (SSC co-chair) provided a brief update on plans for SCS8

B1 Plan Team Nomination

- The SSC reviewed the nomination of Andrew Olson (ADF&G) to the BSAI crab plan team
- The SSC *finds* this nominee to be well-qualified and recommends the Council approve their nomination.

C2 Salmon Bycatch - Overview

- Genetics Reports
- Preliminary Draft Environmental Impact Statement (DEIS)
- Social Impact Assessment (SIA)
- IPA reports / Alternative 4 proposal

- The SSC expresses its appreciation for the work of staff on the DEIS and SIA, especially considering the tight project deadlines
- SSC received considerable public testimony highlighting potential impacts and benefits, as well as the many analytical and other challenges associated with evaluating these impacts

C2 Salmon Bycatch - Genetics Report

- The SSC **highlights** the value of bycatch genetic reports for informing the current Council action on chum salmon, by describing spatial patterns in the stock composition
- The SSC **supports** planned and ongoing efforts to use low-coverage whole genome sequencing for refining the genetic resolution of the Western Alaska reporting group to the extent practicable, but recognizes that the timeline and final success remain uncertain.
- To better contextualize patterns in total bycatch and bycatch by reporting group, the SSC **recommends** future bycatch genetics reports include figures showing the relative amount of fishing effort by ADF&G stat area for the most recent year by pollock fishery sector

C2 Salmon Bycatch - Genetics Report

- The SSC ***recommends*** future bycatch genetics reports include
 - Description of ongoing and planned research to help inform the Council about advances in methodology
 - Discussion of individual-based assignment for chum and Chinook salmon, including its feasibility, challenges, and potential level of uncertainty
 - Discussion of whether there are meaningful differences in stock composition by fishery sector, after controlling for the spatial distribution of fishing effort

C2 Chum Salmon Bycatch DEIS – Initial Review

- Council is considering new management measures to minimize chum bycatch, particularly Western Alaska (WAK) chum salmon, in the Eastern Bering Sea.
- The SSC ***finds*** the preliminary Draft EIS and associated SIA appendix inadequate to allow the Council to understand the fishery and policy impacts of the alternatives.
- The SSC ***recommends*** the document undergo additional analysis and review before it is advanced to public review.

C2 Chum Salmon Bycatch DEIS – Initial Review

Justification for findings:

- Alt. 1 – limited information on impact or efficacy of status quo in avoiding WAK chum
- Alt. 2 – limited information to understand the potential that overall chum PSC limit might not reduce WAK chum bycatch
- Alt 3 – limitations precluded complete analysis and limited comparisons to other alternatives
- Alt 4 – not fully developed & implementation in relation to other alternatives unclear; incomplete analysis

C2 Chum Salmon Bycatch DEIS – Initial Review

Justification for findings (cont'd)

- Limitations to assessing the potential impacts of the alternatives and potential benefits to WAK chum without an AEQ and impact analysis (or a reasonable approximation)
- Asymmetric treatment of uncertainty and differential bias of impacts on industry vs salmon reliant communities

C2 Chum Salmon Bycatch DEIS – Initial Review

- The SSC **recommends** that the potential for unintended impacts on WAK chum salmon be presented earlier in the document and Executive Summary and characterized in terms of lower and upper bounds
- The SSC **recommends** review for consistency of statements, etc. with respect to the potential for increased WAK chum salmon bycatch under Alternative 2, as well as the potential for increased catch of herring and Chinook in general
- The SSC **recommends** improved description of the salmon management regulatory process to better understand potential benefits of the alternatives (increased escapement, harvest opportunities)

C2 Chum Salmon Bycatch DEIS – Initial Review

Impacts on pollock fleet

- The SSC **suggests** reframing current analysis of impacts on pollock fleet in terms of lower and upper bounds for changes in pollock revenue and bycatch quantities
- Simultaneous focus on decreased costs and increased revenues is unrealistic when examining impacts of potential closures under caps

C2 Chum Salmon Bycatch DEIS – Initial Review

Choice of Abundance Indices

- The SSC **finds** analyses comparing indices adequate; results indicate Yukon Summer Chum index could be good proxy for other indices for time frame analyzed (synchrony among indices)
- The SSC **recommends** Suboption 2a (Yukon Summer Chum index) for simplicity
- The SSC **suggests** consideration of using either Norton Sound or Bethel Test Fishery as well in case synchrony of indices diminished in future
- The SSC **notes** that PSC limits would only have been in place after low runs already occurred, suggesting that the purpose and need were not met and higher thresholds should be explored
- The SSC **recommends** providing variance estimates for all indices

C2 Chum Salmon Bycatch DEIS – Initial Review

Impact Analysis / Relative Scale of bycatch

- The SSC **recognizes** challenge of AEQ and impact analysis
- The SSC **recommends** exploring simpler alternatives to understand efficacy of the alternatives for conserving WAK chum salmon during periods of low abundance
- The SSC **recommends** providing tables that put potential WAK chum bycatch into context of commercial and subsistence harvests for the alternatives with appropriate uncertainties and caveats
- The SSC **recommends** exploring a simplified AEQ analysis that uses lower & upper bounds for age at maturity to better bracket the range of chum salmon that might return to western Alaska rivers

C2 Chum Salmon Bycatch DEIS – Initial Review

Structure of Alternative 3

- The SSC **recommends** additional discussion on implementation of Alternative 3
- The SSC **recommends** exploring the feasibility of using historical data to estimate WAK chum salmon rates for in-season management (such as is done for halibut DMRs, for example)

C2 Chum Salmon Bycatch DEIS – Initial Review

Evaluation of Alternatives

- The SSC **questions** assumptions that impacts under Alternative 2 and Alternative 3 would be similar
- The SSC **recommends** a qualitative approach describing and contrasting the incentive structures under each of the alternatives
- The SSC **suggests** two quantitative analyses, to the extent practicable, that use genetic data to provide richer information on the potential impacts of alternatives
 - Assessing predictability of WAK chum bycatch rates
 - Assessing heterogeneity across space and time in target and bycatch species and past fleet movements

C2 Chum Salmon Bycatch DEIS – Initial Review

Evaluation of Alternatives (cont'd)

- The SSC **supports** further evaluation of Alternative 4 in the context of the other alternatives
- The SSC **suggests** discussion of the mechanisms for change under Alternative 4, with particular contrast to Alternative 3
- The SSC **suggests** further discussion of the interactions between Alternative 4 measures and the other Alternatives, e.g., the effect of hard caps under Alt. 2 on the efficacy of Alternative 4
- The SSC **suggests** that analyses could be better informed by the proposed analysis on heterogeneity of bycatch in space and time and past fleet movements (previous slide)

C2 Chum Salmon Bycatch DEIS – Initial Review

Other considerations

- The SSC **highlights** the spatial differences in bycatch rates of WAK salmon vs salmon of Asian or other origin and the potential for spatial management measures to avoid WAK chum bycatch
- The SSC **recommends** scheduling a performance review of any new management measures relatively soon after implementation

C2 Chum Salmon Bycatch SIA – Initial Review

- The SSC reviewed a comprehensive Social Impact Assessment (SIA)
- The SSC **recommends** the following changes to the Regulatory Context discussion (SIA Section 2)
 - Expand the discussion of National Standard (NS) 4 to clearly clearly state that the proposed action alternatives would not result in direct distribution of fishing privileges
 - Include a reference to NS 6
 - Provide a summary that ties each regulatory or Executive Order element discussed to specific sections of the SIA.

C2 Chum Salmon Bycatch SIA – Initial Review

- The SSC **suggests** several changes under SIA Section 4 (Description of Community and Regional Participation by Fishery), in particular providing consolidated tables for ease of comparisons:
 - Bering Sea pollock fishing community engagement matrix
 - Community population and demographics table with color coded cells to identify social vulnerabilities
 - Alaska communities table of census data
 - Demographics table for Unalaska, Akutan and King Cove that better describes the relationship between the non-group quarter population and group quarters population

C2 Chum Salmon Bycatch SIA – Initial Review

- The SSC **suggests** several changes under SIA Section 4 (Description of Community and Regional Participation by Fishery) (**continued**)
 - Provide a consolidated discussion of the relationship between commercial and subsistence fisheries ahead of the individual community discussions for (1) consistency in treatment of subsistence across fisheries and (2) focus individual community subsistence discussions of variations reducing redundancy

C2 Chum Salmon Bycatch SIA – Initial Review

- The SSC **recommends** several changes under SIA Section 4.2 (Community Development Quota Program)
 - Expand description of how impacts to CDQ groups could vary based on their pattern of CDQ quota leasing and investments in partnerships with industry partners with direct fishery involvement
 - Describe how chum hard caps and other proposed alternative features could change the bargaining power of CDQ groups relative to CPs

C2 Chum Salmon Bycatch SIA – Initial Review

- The SSC ***recommends*** reversing the order of SIA Sections 4.3 (Subsistence Harvests of Salmon) and 4.4 (Commercial Harvest of Chum Salmon) for the following reasons
 - The commercial harvest section takes into account engagement and dependency factors parallel to those used for the pollock fishery
 - There are parallels in the relationship of commercial and subsistence fisheries in both the pollock and commercial chum fisheries
 - The commercial salmon fishery would be shut down before the subsistence fishery if choices had to be made

C2 Chum Salmon Bycatch SIA – Initial Review

- The SSC **recommends** providing a map or series of maps to highlight larger patterns of community engagement and dependency for communities identified as potentially impacted by one or more alternatives
 - Overlay federal management areas, CDQ regions, state commercial chum management areas, and the geographies of chum subsistence related issues, among other relevant geographies
 - Identify commonalities and differences in existing conditions and the distribution of varying outcomes across the wide range of communities potentially involved

C2 Chum Salmon Bycatch SIA – Initial Review

- In the pollock fishery shore-based processing community status quo and alternatives discussions, the SSC **recommends** highlighting the recent changes in annual rounds that are not apparent in the quantitative community level data
 - This include closures of the major BSAI crab fisheries, a trend of decline in the Pacific cod fishery, and worse than average year returns in the smaller but still important halibut and sablefish fisheries.
 - While these conditions are not directly connected to the proposed action, they are a part of the larger context within which any direct, indirect, induced, or cumulative adverse impacts resulting from the proposed action alternatives would accrue

C2 Chum Salmon Bycatch SIA – Initial Review

- The SSC ***expresses its appreciation*** for the work that has gone into the development and ongoing refinement of the LKTKS search engine
- The SSC ***recognizes*** the successful use of the LKTKS search engine in identifying materials used in Section 4.3 of the SIA

C2 Salmon Bycatch - Alternative 4 - IPAs

- SSC reviewed annual IPA reports
- The SSC **appreciates** the information, as it is not a typical agenda item it receives
- The SSC **notes** the variety of tools the industry is currently employing to reduce salmon bycatch that would be refined and expanded under Alt. 4
- The SSC **supports** the incorporation of historic genetic data with real-time monitoring to further salmon avoidance (see Alt 3 comments)
- The SSC **recommends** Council staff explore the use of publicly available data on historical fishing patterns to provide any quantitative analyses on the retrospective or prospective performance of the Alternative 4 proposals given Council recommendations, as practicable

D3 Research Priorities

- The SSC was unable to take up D3 Research Priorities due to time constraints
- The SSC ***discussed*** the possibility of taking this up in June 2024, or possibly in a virtual public meeting, pending a scheduling discussion with NPFMC staff
- The SSC ***thanks*** Nicole Watson (NPFMC) for all her efforts and contributions to the Research Priorities process and wish her the best

D4 Sablefish IRA Workshop

- The Council and SSC have expressed interest in developing a tool to support management decisions for stocks experiencing climate-induced variability, such as recent extreme recruitment events in sablefish.
- The SSC convened a workshop to identify the scope for a potential contract that could be initiated with Council IRA funds.
- The SSC **recommends** developing a Management Strategy Evaluation (MSE) tool with additional economic and social dynamics that could be used to inform the Council at the time of TAC-setting.
- The MSE tool would address the fleet, community and market impacts of variability that may arise under climate change.
- The MSE tool would initially be applied to sablefish, but could be adapted to inform TAC-setting for other stocks experiencing climate-induced variability.

D4 Sablefish IRA Workshop

- The SSC **recommends** a postdoc who is trained as an economist and has skills in coding simulation models and, preferably, experience working with stakeholders
 - The SSC **recommends** the candidate be co-located with mentors engaged in research developing similar models
 - The SSC drafted suggested terms of reference and qualifications for this position to move discussion forward

D4 Sablefish IRA Workshop

- The SSC ***recommends*** the project proceed as follows:
 - Leverage one of two biological MSE models of sablefish in development (one Alaska-specific, another coastwide).
 - Initially explore partnering with authors of the Alaska-specific model to add model elements with the economic dynamics of interest.
 - Fleet response, with an emphasis on TAC utilization by different subfleets, should be the primary modeling focus
 - Develop a high-level model of fishing costs, which reflects differences across and within gear types, and which can be calibrated by drawing on limited available proxy information
 - Approach market responses through possible future scenarios relating landings, size and price which are applied to proposed policies.