

Draft SSC Report October 2026



SSC Report

SSC Administrative Discussion

- The SSC received an update on planning for the National SSC workshop (SCS9), scheduled for November 2027.
 - Planning remains in the early stages, and the organizers are seeking input on potential socioeconomic speakers and topics.
 - The SSC indicated that it would forward any suggestions identified by SSC members to the planning committee.
- The SSC thanks Dr. Bob Foy for his contributions to the SSC during his 6 year tenure

B1 Plan Team Nominations

- The SSC reviewed the nominations of:
 - Andrew Olson and Dr. Andrew Whetten to the BSAI GPT,
 - Aaron Lambert to the GOA GPT,
 - Dr. Lee Cronin-Fine to the CPT
- The SSC ***finds*** these nominees to be well qualified and ***recommends*** the Council approve their nominations.

C2 BSAI Crab Harvest Specifications

General Crab Comments

- The SSC ***supports*** the expansion of technical expertise on the CPT and a second CPT co-chair to help address overall capacity constraints
- The SSC ***highlights*** continued support for research to better understand both density-dependent and environmental impacts on recruitment processes for BSAI crab
- Noting the continued modifications necessary for the EBS snow crab assessment and with support from the Tanner crab CIE review, the SSC ***continues*** to recommend that the HCRs for crab be re-evaluated in the near future

C2 BSAI Crab Harvest Specifications

General Crab Comments - *Chionoecetes* Hybrid crab

- 2026 survey trends indicate that hybrid crab declined in all size-sex categories, with the exception of industry-preferred size, which continued to increase (12%) beyond the record 2025 levels
- This recent increase in the occurrence of large hybrids spurred numerous discussions at the CPT and SSC over the last year
- The SSC **notes** hybrid crab have historically have been of very low abundance and are not included as a stock in the FMP
- The SSC had a wide-ranging discussion regarding hybrid crab

C2 BSAI Crab Harvest Specifications

General Crab Comments - *Chionoecetes* Hybrid crab

- The SSC **notes** that the question of whether hybrid crab require conservation and management appears to have not been evaluated
- The SSC **strongly supports** further efforts to collect data on hybrids while they continue to be present in survey samples, as capacity allows.
- The SSC **requests** further clarification on the treatment of hybrids for the catch that is included in assessment models and the catch that accrues toward the ABC and OFL

C2 BSAI Crab Harvest Specifications

General Crab Comments - *Chionoecetes* Hybrid crab

- A workshop that included managers, industry and scientists was proposed in public testimony
- Should the Council choose to move forward with a workshop, the SSC **suggests** several considerations related to biological data needs, data collection protocols or clarifications, and potential socioeconomic data
- The SSC would be willing to participate in such a workshop
- While the SSC **emphasizes** its focus is on the biological and analytic aspects of these questions

C2 BSAI Crab Harvest Specifications

Crab Plan Team Report - Trawl Survey Updates

- The SSC received a presentation on the 2026 EBS bottom trawl survey results relevant to BSAI crab
- The SSC **commends** the survey team and assessment authors for providing data and updating models and documents on the short timeframe
- Survey results for BSAI crab stocks were generally positive in 2026, with the exception being EBS snow crab.
 - BBRKC and Tanner crab - increases in most size-sex categories
 - EBS snow crab - declines in all size-sex categories, 28% down for industry preferred
 - Other king crab stocks stable or increasing (though still low levels)

C2 BSAI Crab Harvest Specifications

Crab Plan Team Report - Trawl Survey Updates

- While there are positive signs for most stocks, the SSC **continues** to express general concern over the low stock status of many of the BSAI crab stocks.
- The SSC **supports** efforts to better evaluate the effects of BBRKC trawl survey resampling on size composition and abundance estimates

C2 BSAI Crab Harvest Specifications

EBS Snow Crab

- Full assessment, male biomass continues to be extremely low since 2019/20 crash.
- SSC recommends the REMA/Tier 4 model in agreement with author and CPT. Stock is at 75% of Bmsy.
- Tier 4, not overfished, no overfishing, but still under rebuilding.
- Public testimony mostly focused on hybrids and also voiced concern with continued Tier 3 model issues and model complexity.
- Risk table scores all Level 1, except Level 2 for Population Dynamics (4th lowest biomass of preferred males, skewed sex ratio, downward shift in male size at maturity).

C2 BSAI Crab Harvest Specifications

EBS Snow Crab

- The SSC **recommends** the REMA/Tier 4 approach and its associated OFL. The SSC did not agree with the CPT recommended buffer of 50% and recommended a 40% ABC buffer (the same as last year).
 - Main buffer consideration is with appropriate size at maturity definition (95mm vs morph. mature) which has not changed from last year.
 - Additional CPT concerns were already accounted for
- The SSC **recommends** the REMA/Tier 4 model be renamed 25.0 as next years' base model.
- The SSC **recommends** continued effort to simplify/stabilize the size-structured model and supported the CPTs focus for its January 2027 workshop

C2 BSAI Crab Harvest Specifications

Tanner Crab

- Full assessment, Tier 3, survey and fishery data indicate the strong 2023 cohort continues to progress into larger size classes
- Increasing mature female abundance and large increases in industry-preferred ($>125\text{mm}$) males
- The 2026/27 estimate for the B/B_{MSY} is 2.29, placing this stock in Tier 3a, not overfished. Overfishing did not occur in 2025/26.
- Risk Table: Level 1 (Normal) for population dynamics, environmental/ecosystem conditions, and fishery performance. Level 2 (Increased) for assessment considerations, due to persistent difficulty in fitting NMFS survey index

C2 BSAI Crab Harvest Specifications

Tanner Crab

- The SSC **recommends** Model 23.03d5 (TCSAM02) in agreement with the author and CPT, and its associated OFL and 20% ABC buffer
 - The choice of buffer in agreement with both the CPT and author, and consistent with previous years
- The SSC **recommends** continuing to prioritize transition to GMACS
- The SSC **concurs** with the CIE recommendations as presented
- The SSC **recommends** a yield-per-recruit analysis to identify proxies for MSY based on the spawning potential ratio
- The SSC **recommends** reassessing the need for a pre-1973 spin-up period versus estimating initial numbers-at-size.

C2 BSAI Crab Harvest Specifications

Bristol Bay Red King Crab

- Full Assessment; male and female survey abundance continues slow increase since closure, but no substantial recruitment since mid-2000s.
- The SSC **recommends** Model 26.0 in agreement with the author and CPT
- Tier 3b, not overfished and overfishing did not occur
- ESP showed a cold thermal regime and a delayed female molt-mate cycle, with normal clutch fullness and stable core habitat occupancy
- Risk Table scores were all Level 1 (Normal/No concern)
- The SSC **supports** a 20% buffer (no change from 2025), in agreement with the CPT and author, based on continued uncertainty due to retrospective patterns

C2 BSAI Crab Harvest Specifications

Bristol Bay Red King Crab

- The SSC **recommends** several models for future assessments:
 - Develop model-based substitutes for temperature-driven female molt delays using environmental covariates.
 - Bring forward a male-only model configuration for and evaluate a 50:50 fixed recruitment sex ratio.
 - Test a sensitivity model starting in 1985 and continue developing sdmTMB spatiotemporal models.
- The SSC **recommends** several ESP improvements
 - Provide sample frame details (response rate and representativeness) for skipper surveys.
 - Set clear decision questions and diagnostics before transitioning from BAS to DSEM

C2 BSAI Crab Harvest Specifications

St. Matthew Blue King Crab

- Stock biomass remains low relative to B_{MSY} ($B/B_{MSY} = 0.51$)
- MMB is projected to decline below MSST in 2026/27 and is unlikely to reach MSST by 2031 under recent recruitment
- Tier 4; not overfished, and overfishing did not occur. Under a rebuilding plan; directed fishery closed since 2016/17
- No public testimony
- Risk table not available

C2 BSAI Crab Harvest Specifications

St. Matthew Blue King Crab

- The SSC **recommends** Model 26.2 in agreement with the authors and CPT
- The SSC **supports** a 25% buffer (no change from 2025), in agreement with the CPT and authors, based on:
 - Remaining uncertainty in life-history parameters, survey catchability and selectivity, recruitment, and rebuilding
 - Continued low stock size relative to BMSY
 - Concerns regarding projected warmer winter temperatures

C2 BSAI Crab Harvest Specifications

St. Matthew Blue King Crab

- The SSC ***recommends*** several model improvements for future assessments:
 - Integrate the model-based index incorporating the EBS trawl and ADF&G pot surveys.
 - Evaluate the model-based index EBS trawl survey index, including model fit and residual variability, survey catchability, and selectivity.
 - Refine model-based EBS trawl survey size compositions using abundance.
 - Evaluate correlation among size-specific spatial fields.
 - Develop a risk table
 - Evaluate expanding the modeled size range to smaller crabs.
 - Continue research on growth and molting, M, spatial distribution, and recruitment.

C2 BSAI Crab Harvest Specifications

Western Aleutian Islands Red King Crab

- WAIRKC stock is a Tier 5 stock assessed on a triennial cycle.
- The CPT recommended rolling over specifications for 2026/2027 due to capacity constraints.
- The SSC agreed with this approach in June
- The directed fishery is closed and there was no bycatch, so overfishing is not occurring for WAIRKC
- The SSC **looks** forward to an updated SAFE in 2027

C2 BSAI Crab Harvest Specifications

Crab Plan Team Report - Overfishing Updates

- The SSC received overfishing status updates for four stocks in off-cycle assessment years.
 - Pribilof Islands RKC, Pribilof Islands BKC, Pribilof Islands GKC, and Aleutian Islands golden king crab
- Total catch mortality for all stocks was below the OFL so overfishing did not occur in 2025/2026.

C2 BSAI Crab Harvest Specifications

Crab Plan Team Report - SAFE Guidelines & Risk Tables

- The SSC **appreciates** the efforts to streamline and standardize the BSAI crab SAFE reports and other associated documentation
- The SSC **appreciates** the draft risk tables provided by crab assessment authors and looks forward to additional CPT review
 - The SSC **recommends** that the CPT include a discussion of how to name “levels” in the two-tier risk table and ensure that the levels included in the table reflect the overall buffer
 - The SSC **notes** that the Tanner risk table is promising, as it can represent a historical buffer with potential modifications for current year considerations

C3 Groundfish Harvest Specifications

General Groundfish Comments

- The SSC **highlights** the continuing limitations in the Age and Growth Program capacity, emphasizing the importance of age data to assessment models
- The SSC **recognizes** the effects of limited capacity more broadly including those associated with the Council process (e.g. the ESP Team)
- The SSC **encourages** continued efforts to explore ways to address capacity issues and commends the ongoing work to streamline workflow, conduct additional training, and collaborate across agencies

C3 Groundfish Harvest Specifications

- The SSC recommended final specifications for 8 stocks in the BSAI and 7 stocks/stock complexes in the GOA
 - These included harvest projections and assessments that were previously reviewed in October 2025
- The SSC recommended proposed models for operational stock assessments to be reviewed in December for:
 - Sablefish
 - 4 stocks in the BSAI
 - 3 stocks/stock complexes in the GOA
- The SSC **recommends** approval of the preliminary 2027/2028 BSAI and GOA groundfish specifications and apportionments, as provided by GPTs

C3 Groundfish Harvest Specifications

General Groundfish Comments

- The SSC ***supports*** authors moving toward using a more standardized approach in harvest projections.
- The SSC ***notes*** that while the requested five-year projections were included in the GOA rex sole and GOA arrowtooth flounder assessments, inconsistent catch projection assumptions were applied.
- To SSC ***recommends*** authors be consistent across assessments when projecting years 3-5.

C3 Groundfish Harvest Specifications

General Groundfish Comments

- When REMA models are used to estimate BRDs for Tier 3 assessments, the SSC **requests** that basic documentation be routinely provided, including:
 - Model configuration, convergence status, parameter estimates and plots showing fits to survey observations.

C3 Groundfish Harvest Specifications

General Comments on BRD flexibility

- The SSC strongly emphasizes that this is the first application of a new process and anticipates further development and standardization
- The SSC framed its discussion of flexibility in BRDs around the relative risk of exceeding any single BRD in a single year (rather than multiple years for species assessed on multi-year cycles)
- The SSC's approach to evaluating risk and providing advice may evolve or change with different stocks and over time

C3 Groundfish Harvest Specifications

General Comments on BRD flexibility

- The SSC strongly **supports** the development of quantitative approaches, while noting that other factors may also inform discussion of BRD flexibility
- Existing data in groundfish assessments should be used to create a summary of trends in BRDs, subsequent subarea TACs, and total catch
- The SSC requested this information be compiled for December where advice on flexibility was requested by the Council in October 2025 (or for additional stocks identified at this meeting)
- The SSC **reiterates** that changes from the BRDs should be a rare event, as the spatial distribution of the stock is still best represented by the estimates developed from fishery-independent surveys and persistent or long-term deviations from this may negatively impact the stock

C3 Groundfish Harvest Specifications

Joint Groundfish Team Report - Harvest Control Rules

- The SSC received a presentation from the HCR team summarizing the presentation given to the Groundfish Plan Teams.
- The SSC appreciates the extensive coordination required to carry out the HCR work.
- The SSC supports the HCR team's approach of focusing on communicating what is robust about current HCRs and addressing individual stock changes.
- The SSC notes that, as specific HCRs for selected stocks are undergoing testing, it may be timely to consider how the proposed new HCRs would be integrated within our current or a revised tier structure. The HCRs and the tier system are part of an integrated management system, and potentially interact, especially under the ecosystem cap and in a multispecies modeling context.

C3 Groundfish Harvest Specifications

Joint Groundfish Team Report - Harvest Control Rules

- The SSC continues to strongly support including crab stocks in the HCR work, and requests including timelines for crab going forward.
- For May, the SSC suggests including a description of how to move from MSEs to management under the current tier system, with sablefish as a case study
- The SSC suggests developing a discussion of how to reconcile different sets of analyses that lead to different conclusions, how to better understand how differences may arise, and how the results can be integrated to select the “best-performing” HCRs.

C3 Groundfish Harvest Specifications

Joint Groundfish Team Report - Harvest Control Rules

- The June 2026 HCR paper organizes proposed performance metrics related to the objectives into stock status, yield, biological stability, societal and ecosystem categories. The SSC suggests adding a category evaluate transparency and simplicity of the proposed HCRs.
- The SSC recommends comparing the current HCR and risk-table process to all alternative HCRs. The SSC recognizes the challenge of simulating the inherently qualitative approach to determining buffers.
- With respect to the different HCR options, the SSC suggests separating HCRs intended to be robust to climate shocks and surprises (HCR 5/10) from climate-adaptive HCRs (HCR 7).

C3 Groundfish Harvest Specifications

Joint Groundfish Team Report - Harvest Control Rules

- The SSC suggests that the Council may want to identify a small set of prioritized objectives for evaluating the tradeoffs among HCRs.
- The SSC also suggests adding an objective related to the time and effort required to implement potentially more complex HCRs .

C3 Groundfish Harvest Specifications

Sablefish Model Runs

- Tier 3 stock last assessed in 2024.
- Assessment uses a new stock assessment program using RTMB programming language, endorsed for use in 2025
- The SSC **recommends** the authors bring forward the following models in December
 - Model 25.12, the continuity model
 - Model 26.1_1Reg, an updated, substantially revised, model using a carryover approach for unsurveyed areas
 - Model 26.1_FAA, fleets-as-areas model
 - Additional SSC-requested fleets-as-areas model with dome-shaped selectivity in Bering Sea fisheries and surveys

C3 Groundfish Harvest Specifications

Sablefish Model Runs

- Previous assessments used an interpolation approach for missing surveys that is not possible with the new survey schedule.
- The carryover approach in Model 26.1_1 was implemented to construct a complete longline survey index. This was done by using the most recent survey for an area when it was not surveyed in a particular year.
- A Fleets As Areas (FAA) model was developed to use the reduced data directly without filling in gaps

C3 Groundfish Harvest Specifications

Sablefish Model Runs

- The Gulf of Alaska, the Bering Sea and the Aleutian Islands were treated as separate fleets (data streams) in this approach
- FAA approach is commonly used in West Coast assessments and elsewhere
- In June 2026, a CIE review was convened to review these new modeling approaches for sablefish and endorsed the FAA model.
- The FAA model allows the current surveys to be modeled, but does not address the information gaps created by the new design (sampling only the GOA or EBS/AI)
- The SSC has some concern that using this modeling approach would reinforce the current survey design

C3 Groundfish Harvest Specifications

Sablefish Model Runs

- The simple assumptions necessitated by the FAA approach led to the SSC request for an additional model version including dome-shaped selectivity for BS and AI fleets.
- The SSC also requests that a sensitivity model run be done where the natural mortality estimated in Model 26.1_1Reg is included as fixed values in Model 26.2_FAA to evaluate the impact of the re-estimated natural mortality values in Model 26.2_FAA on model results.

C3 Groundfish Harvest Specifications

Joint Groundfish Team Report - ESP/DSEM

- The ESP/DSEM team provided examples where DSEMs reduced variance in estimates of assessment parameters such as recruitment
- The SSC **supports** the ongoing efforts to expand the analytical capabilities in using DSEM within ESPs, allowing a broader integration of ecosystem, climate, and socioeconomic data into assessments.
- The SSC **supports** the Plan Team's recommendation to develop standardized workflows and documenting evidence for linkages among variables.
- The SSC **acknowledges** that dedicated analytical staff other than assessment authors are needed to expand efforts to the levels requested.

C3 Groundfish Harvest Specifications

Joint Groundfish Team Report - Pacific Cod Research Updates

- An update on Pacific cod research by assessment authors focused on stock structure, movement of cod between the WGOA and BS, and modeling platforms to best accommodate spatial structure and movement.
- While some strong genetic structure exists, there is currently no identifiable genetic structure among the central GOA, western GOA, and eastern BS. This is further supported by movement of tagged individual among these regions, especially the WGOA and EBS.
- The SSC **supports** the methods proposed modeling effort with a goal of developing spatial assessments and evaluating alternative apportionment across seasons and between regions

C3 Groundfish Harvest Specifications

Joint Groundfish Team Report - other items

- The SSC received a detailed summary of the 2026 longline survey results.
- The SSC also received a brief summary of inseason management updates.
- The SSC ***supports*** JGPT recommendation to approve Halibut DMR Working Group proposed halibut DMRs for 2027/2028

C3 BSAI Groundfish Harvest Specifications

Bogoslof Pollock

- Tier 5, update assessment, random effects model fit to acoustic survey trends
- Last full assessment: 2024; frequency: 2 years
- 2024 survey biomass 245 kt, 31% decrease from 2020; no new data; no directed fishing since 1992
- Overfished status not available. Overfishing did not occur in 2025.
- No public testimony related to this stock

C3 BSAI Groundfish Harvest Specifications

Bogoslof Pollock

- The SSC **recommends** the random-effects model in agreement with authors and PT and its associated OFL for harvest specifications
 - Last accepted model used for update assessment
- Risk table scores were all 1 (Normal)
- The SSC **recommends** the maxABC/ABC, in agreement with the author and PT
- The SSC **looks forward to** updates on exploration of size-based spawn timing and survey timing and how it may impact sex ratio in survey

C3 BSAI Groundfish Harvest Specifications

Harvest Projections Summary

- The SSC reviewed the harvest projections for AI pollock, arrowtooth flounder, Kamchatka flounder, Northern rock sole, flathead sole, Alaska plaice and northern rockfish in the BSAI.
- The SSC **concur**s with the recommended OFL, ABC, and BRDs, in agreement with the author and BSAI GPT for all harvest projections.

C3 BSAI Groundfish Harvest Specifications

EBS Pollock Model Runs

- Tier 3 stock; last assessed in 2024.
- The SSC **recommends** the authors bring forward the following models for consideration of harvest specifications in [October/December]
 - Model 23.0 (base model) and Model 26.0 (transition to Rceattle framework).
 - In agreement with author and BSAI GPT.
- The SSC recommends future work examining time-varying selectivity that's now possible within the new Rceattle framework.
- The SSC **supports** CPT recommendations regarding retrospective patterns, age-comp data weighting, and further ESP development.

C3 BSAI Groundfish Harvest Specifications

Yellowfin Sole Model Runs

- Previously Tier 1 age- and sex-structured model, last complete assessment in 2024 (23.0)
- The SSC **supports** use of Tier 3 reference points due to poorly informed relationship between spawning stock size and recruitment
 - Consistent with Oct 2025; supported by CIE review
- The SSC **recommends** bringing forward three models, in agreement with authors and Plan Team
 - SS3 implementation of 23.0 as new base model (25.0)
 - Two alternatives implementing new weighting of survey age compositions and linking survey start data (25.0a) or temperature (25.0b) to survey catchability

C3 BSAI Groundfish Harvest Specifications

Yellowfin Sole Model Runs

- Additional SSC **recommendations** for December:
 - Document survey age-composition sample sizes and weighting diagnostics
- Additional SSC **recommendations** for future assessments:
 - Further explore how environmental conditions affect catchability
 - Explore temperature-dependent growth.
 - Investigate long-term declines and weak recruitment in the context of Bristol Bay ecosystem changes, potentially through a future ESP

C3 BSAI Groundfish Harvest Specifications

Greenland Turbot Model Runs

- Tier 3a; biennial, sex- and age-structured assessment (SS3), last completed in 2024
- The SSC **recommends** Models 25.0 as the new base model and 25.4a (estimated survey catchability, new composition weighting, simplified slope selectivity), as proposed by authors and GPT
- The SSC **recommends** replacing proposed model 25.3a with model 26.3 (using 1977 instead of 1945 start date) due to convergence and selectivity concerns and to explore contrasting histories.
- The SSC **recommends** bringing forward a Tier 5 model (in agreement with GPT), but clarifying biomass scaling and interpretation.

C3 BSAI Groundfish Harvest Specifications

Greenland Turbot Model Runs

- The SSC **recommends** continued use of the REMA approach for spatial apportionment
- The SSC **highlights** the crucial importance of sampling slope stations, as well as better age data, to inform this stock assessment

C3 BSAI Groundfish Harvest Specifications

EBS Pacific Cod Model Runs

- Annual Tier 3 age-structured Stock Synthesis model. The previous assessment was done in 2025
- The SSC **recommends** the following models for December:
 - Model 26.1: Age-14+ plus-group model and Model 24.1: Base model with age-20+ plus-group, as also recommended by GPT
- The SSC **recommends** the following for future work:
 - Continue exploring seasonal sex composition and sex-specific movement.
 - Maintain Pacific cod ageing capacity and age-data collection, augmenting age information for older fish where feasible.
 - Explore evidence for age-varying natural mortality

C3 BSAI Groundfish Harvest Specifications

BSAI Survey Results

- *EBS Bottom Trawl Survey*
 - The SSC **notes** the updated target date of 2031 for survey modernization with design to include sampling to 400 m and plan for test tows to 600 m to assess feasibility
 - The SSC **notes** the lack of deepwater sampling since 2016 and the effect on assessments for deepwater species
- *Aleutian Islands Bottom Trawl Survey*
 - The SSC **notes** observation of localized hypoxia
 - The SSC **supports** exploration of whether hypoxic conditions affect species distributions or survey catches

C3 BSAI Groundfish Harvest Specifications

BSAI Survey Results

- *EBS Acoustic-Trawl Survey (ATS)*
 - The SSC **notes** BSAI GPT's discussion on overlap of ATS and Acoustic Vessels of Opportunity (AVO) in 2026 as an opportunity for direct comparison
 - The SSC **commends** survey team and assessment authors for providing survey data and incorporating into assessments in short timeframe

C3 GOA Groundfish Harvest Specifications

Arrowtooth Flounder

- Full assessment; TMB based Rceattle model
- Previous assessment in 2021, and proposed models reviewed in September 2025
- Projected 2027 female SSB remains well above B35%
- Tier 3a; not overfished and overfishing did not occur. Recent catch was substantially below the OFL
- No public testimony

C3 GOA Groundfish Harvest Specifications

Arrowtooth Flounder

- The SSC **recommends** Model 25.0 in agreement with the authors and GOA GPT
 - TMB based Rceattle model with fixed sex-specific M: 0.20 for females and 0.53 for males
 - Provides stable management advice while recognizing remaining M-selectivity-recruitment uncertainty
- Risk Table: Level 1 in all four categories
- The SSC **recommends** the OFL and maxABC in agreement with the authors and GOA GPT

C3 GOA Groundfish Harvest Specifications

Arrowtooth Flounder

- The SSC **agrees** with the GOA PT and authors on BRDs.
- The SSC **recommends** several improvements for future assessments:
 - Continue investigating M-selectivity-recruitment confounding, including age-varying M and alternative selectivity.
 - Evaluate composition data treatment and weighting, including fishery and survey age compositions.
 - Investigating survey catchability and complementary surveys, including temperature effects, influential survey observations in 2003, and the ADF&G large-mesh and AFSC longline surveys

C3 GOA Groundfish Harvest Specifications

Arrowtooth Flounder

- The SSC **recommends** several ESP improvements for future assessments:
 - Continue DSEM validation and robustness testing, including the 2000 year class, indicator availability, and predictive performance.
 - Develop a framework to integrate DSEM information into Rceattle and evaluate whether it reduces recruitment uncertainty.
 - Continue developing socioeconomic indicators for potential ABC versus TAC applications.

C3 GOA Groundfish Harvest Specifications

Rex Sole

- Tier 3 stock assessed using a two-area age-structured assessment model using the stock synthesis program.
- Last assessed in 2021.
- Scheduled to be assessed in 2025, and preferred runs were selected in October 2025.
- The assessment was not completed due to the government shutdown.
- Projected 2027 female SSB is more than twice B40%.
- Rex sole is not overfished and overfishing did not occur in 2025.
- There was no public testimony on this stock.

C3 GOA Groundfish Harvest Specifications

Rex Sole

- The SSC **recommends** Model 25.1 and its associated OFL for harvest specifications in agreement with the assessment authors and plan team
 - Model 25.1 accounts for ageing error while model 25.0 does not
- Increased risk level of 2 for assessment-related considerations
 - Similarity of the maturity and selectivity curves, which produces sensitivity in reference points calculations.
 - Poor fits to survey biomass in 2025 and age data.
 - No other elevated risk scores.
- The SSC **recommends** the OFL and no reduction from the maxABC, in agreement with the assessment authors and the plan team.

C3 GOA Groundfish Harvest Specifications

Rex Sole

- The SSC **agrees** with the PT and author on the proposed BRDs.
- A bridging analysis was completed using the current stock synthesis model and SPoRC, a new assessment package programmed in RTMB
- The SSC **recommends** using SPoRC for the next operational assessment

C3 GOA Groundfish Harvest Specifications

GOA Skates

- GOA skates complex include three components: big skate, longnose skate and other skates.
- Tier 5 update assessment that uses REMA models to estimate survey biomass and an assumed natural mortality rates to determine harvest specifications
- Previous operational assessment in 2023, biennial cycle
- GOA-wide survey biomass is increasing for all components and regional biomass trends are generally stable or increasing, with the exception of longnose skate in the WGOA
- There was no public testimony.

C3 GOA Groundfish Harvest Specifications

GOA Skates

- The SSC **concurs** with the author and GOA GPT's recommended OFLs and ABCs for the GOA skate complex, with no reduction from the maxABC
- Risk table scores were all Level 1
- Overfishing did not occur and in Tier 5, an overfished status cannot be determined.
- The SSC also **agrees** with the GOA GPT and author on the recommended BRDs.
- The SSC **continues** to recommend a re-evaluation of natural mortality and a BSAI-GOA collaborative effort to bring forward a stock structure template

C3 GOA Groundfish Harvest Specifications

GOA Skates BRD flexibility

- In Oct 2025, the Council requested SSC advice regarding flexibility in spatial apportionment for big and longnose skate
- Specifically, the Council requested input on using the previous set of BRDs or a small change from the current year's BRDs would have a biological impact
- The SSC **considered** a wide variety of information from the GOA skate SAFE, the GOA-GPT discussion and a limited literature review.
 - These included: GOA-wide and regional survey trends, retention and discard mortality information, risk table scores, literature on movement and natural mortality, other general life history information, and a lack of a stock structure template.

C3 GOA Groundfish Harvest Specifications

GOA Skates BRD flexibility

- The SSC had an extensive discussion, focused on WGOA longnose
- There was general agreement that there is flexibility in BRDs for skates
- There was mixed concern whether setting the longnose skate WGOA subarea TAC equal to the 2026 BRD or greater than the 2027 WGOA BRD by a small amount would cause a biological impact to the stock
- The SSC generally **concurs** with the GOA GPT recommendation to exercise caution for longnose skate in the WGOA
- Further, the SSC **suggests** the risk of exceeding the 2027 BRD in the WGOA for longnose is higher than in other regions for Longnose or overall for big skate.

C3 GOA Groundfish Harvest Specifications

GOA Skates BRD flexibility

- Considering all these factors, the SSC **recommends** that the risk of biological impact to these skate species is low if the Council chooses to use the previous (2026) BRDs or a small deviation from the 2027 BRDs.
- Further, the SSC also **suggests** that if the Council does choose to deviate from the BRDs:
 - that the risk of future flexibility in BRDs would be re-evaluated with new GOA survey data in 2027 and
 - that GOA skates be prioritized for an operational assessment in 2027.

C3 GOA Groundfish Harvest Specifications

Harvest Projections Summary

- The SSC reviewed the harvest projections for shallow water flatfish, deepwater flatfish, flathead sole, and dusky rockfish in the GOA.
- The SSC **concur**s with the recommended OFLs, ABCs, and BRDs, in agreement with the author and GOA GPT for all harvest projections.

C3 GOA Groundfish Harvest Specifications

GOA Pollock Model Runs

- Tier 3; last full assessment in 2024 (Model 23d); assessed annually; age-structured model
- The SSC **supports** transitioning to a new base model (26a) implemented in a new platform (Rceattle) to support integration of environmental information; the SSC **highlights** the innovative approach to EBFM
- The SSC **recommends** bringing forward the new base model and one innovative extension (Model 26b), in agreement with authors and GPT
 - Model 26b incorporates DSEM linking recruitment to ecosystem variables through a well-supported “moderately complex” set of causal relationships
- The SSC **supports** using average recruitment in projections for this assessment cycle, rather than DSEM-based recruitment forecasts.

C3 GOA Groundfish Harvest Specifications

GOA Pollock Model Runs

- The SSC shares concerns about persistent discrepancies between recent NMFS bottom-trawl survey estimates and model predictions
- The SSC **recommends** putting highest priority on resolving this conflict, including evaluation of:
 - Changes in vertical availability to the survey and potential migration between the Bering Sea and western GOA.
 - Sensitivity of survey fits to including or excluding data around the Alaska Peninsula.
- The SSC **highlights** need to avoid double-counting ecosystem risks
 - Environmental effects already incorporated into assessment should not also justify risk-table adjustments, unless they represent independent mechanisms or additional uncertainty

C3 GOA Groundfish Harvest Specifications

GOA Thornyheads Model Runs

- Thornyheads are a tier 5 stock assessed using REMA models by depth strata and management area.
- Previously assessed in 2024 and assessed on a two year cycle.
- Redesigned 2025 trawl survey made it impossible to use the previous approach with three depth strata (0-500m, 500-700m, 700-1000m)
- A new approach with two depth strata was developed (0-700m, 700-1000m)
- The SSC ***recommends*** the authors bring forward the following models for consideration of harvest specifications in [October/December]
 - Model 24.2a, continuity model with three depth strata.
 - Model 24.2f, preferred model with two depth strata.

C3 GOA Groundfish Harvest Specifications

Demersal Shelf Rockfish Model Runs

- Tier 5 yelloweye in SEO, Tier 6 for all other DSR stocks and areas. Last assessment was 2024.
 - Tier 5 REMA uses ADFG ROV and IPHC longline survey, Tier 6 based on maximum catch
- The SSC **recommends** the authors bring forward the following models for consideration of harvest specifications in December
 - Base model (25.0)
 - The authors and PT recommended spatial-temporal model that standardizes the IPHC survey estimates
 - Bootstrapped CVs to compare with model-based CVs
- The SSC highlights that the data used for Tier 5 has declined: ROV survey has not been conducted since 2023, and IPHC sampling has declined.