C1 Scallop Harvest Specifications

The SSC received a presentation on the 2024 Scallop Stock Assessment and Fishery Evaluation (SAFE) from Scallop Plan Team (SPT) co-chairs Sarah Rheinsmith (NPFMC) and Tyler Jackson (ADF&G), and Scott Miller (NOAA-AKRO). The SSC thanks Mike Byerly (ADF&G) for his many years of service on the SPT and congratulates him on his upcoming retirement. There was no public testimony.

Amendment 18 to the Scallop FMP removed the requirement for the SPT to submit an annual SAFE report, and set specifications on an annual basis. Therefore, the SSC will set specifications for two years and not receive the next SAFE until 2026. The SPT will meet in 2025 to discuss fishery performance, receive an update on survey information, and make recommendations to the SSC on whether overfishing is occurring.

The assessment methods for this stock were not changed in 2024. The SSC appreciates the author's efforts to revise the SAFE document to a format consistent with other SAFE documents and to streamline the information specific to the stock assessment.

In 2023/24 total catch (retained catch + discard mortality) was 328,112 lb (149 t) shucked meats, about 26% of the 1.284 million lb (582 t) OFL, **so overfishing did not occur in 2023/24**. In the absence of stock-size estimates, **the overfished status of the scallop stock is unknown**.

The SSC agrees with the SPT to again recommend a 1.284 million lb (582 t) OFL for 2024/25 and 2025/26, the default OFL specified in the Scallop FMP based on average total catch from 1990-1997 (excluding 1995). **However, for future assessments, the SSC appreciates the authors' consideration of appropriate reference periods and recommends that the SPT develop and evaluate additional reference periods to better inform OFL determination.** The SSC supports the work by ADF&G staff on considering more recent years as adequately representing current production potential in the stock. **The SSC recommends the max ABC (based on 90% OFL), as described in the Scallop FMP, of 1.156 million lb (524 t) OFL for 2024/25 and 2025/26.** For the next assessment cycle the SSC recommends that a rationale be provided for setting ABC equal to the max ABC, with considerations for whether a reduction from maxABC may be warranted.

The SPT also presented updates to observer and dredge survey data and noted 2023 survey increases in small (<100 mm) scallop in the WKI and EKI beds and missing small size modes in YAK beds. **The SSC had a number of recommendations to be considered for future survey analyses and SAFE documents**:

- A survey power analysis between the historically used ('Homer') dredge and the new ('Kodiak') dredge was attempted but the results were biased due to changes made to the gear and highly uncertain due to low statistical sample sizes. The SSC requests that the ADF&G survey team consider whether there are any lessons learned from the before/after gear testing that could, at minimum, qualitatively assess changes in the gear effectiveness between the historical and current gear.

- Provide historical survey (dredge and large mesh) data results (abundance and CPUE) and commercial landings by area in future SAFE documents.

- Similarly, provide a historical table with changes in GHL over time and describe the rationale for the GHL changes.

- Collect data on the size composition of clappers by area encountered in the fishery to inform potential causes of the substantial, and concerning, increase in empty shells.

Results from the ADF&G author's efforts to improve modeled biomass for a subset of scallop beds was presented. The SSC appreciates the explorations of a state-space random walk model for the core-areas that have survey data, but agrees that an approach that considers the available length data would be more appropriate. The SSC supports the author's decision to stop working on a single age-based population dynamic model and agrees that future modeling efforts should focus on catch-at-length models for core beds that have data, and a catch-informed method as is currently used for non-core beds. These modeling efforts could potentially support a new process for OFL determinations based on the sum of the OFLs for the core beds and the non-core beds. The SSC has the following specific recommendations on future models and SAFE documents:

- When evaluating different analytical methods for core and non-core areas, consider groundfish examples where multiple tiers are used to determine a single OFL for different areas (e.g., BSAI blackspotted/rougheye rockfish, GOA pollock). Consider the St. Matthew blue king crab assessment model, a relatively simple size-structured model with three size bins, as an example that could potentially be adapted for core bed scallop assessments.

- In non-core areas, distinguish between beds where scallops are no longer present and beds where scallops are still present and could potentially support a fishery.

- Provide historical fishery CPUE data so that the early time periods of this fishery can be considered relative to current stock production.

- Include information to assess stock production and potential hyperstability in fishery CPUE data. To provide context and help interpret changes in fishery CPUE, the SSC suggests developing indices or a better description of how fishing behavior (e.g. reduced fishing area, exploratory fishing) has changed over time.

- Provide rationale for the 20% handling mortality used in the assessment and additional estimates of retained not landed (RNL). Studies from east coast fisheries should be consulted when considering the handling mortality. Also provide results from the Kamishak Bay ADF&G study on discard mortality.

- If a size based model is developed in the next assessment, identify criteria for determining both the years used as a B_{MSY} reference period and whether to include the most recent year in that period.

- Consider holding a SPT scallop modeling meeting with external model experts during the interim before the next full assessment in 2026 to consider potential modeling approaches for core beds. If progress on new modeling approaches is sufficient, the SSC would be prepared to consider these methods for OFL and ABC setting in 2026.

- Consider the importance of stock delineations based on all survey data available (e.g. IPHC survey, Large Mesh trawl) in understanding differences in trends and productivity across all beds. Mapping the location of scallop occurrence in these surveys may be useful in this exercise.

The SPT received an update on results from disease data relative to environmental conditions. The SSC recommends that future consideration for impacts of the multiple heatwaves in the past ten years be considered.

An updated socioeconomic analysis was presented in the 2024 SAFE. Of note was the decrease (9%) in prices due to imports from Japan. The SSC is encouraged to see that its multi-year comments on socioeconomic considerations, last summarized in the 2022 SAFE, are in the process of being addressed

and looks forward to continued work in this area as described in Appendix A and during the staff presentation. The expansion of Table A1.2, Scallop landings by port, from 2019-2022 to 1990-2022/23, in the current SAFE is especially useful. This fishery is important from a socioeconomic analytic perspective in that the National Standard 8 goal of providing for the sustained participation of fishing communities does not appear to have been met over time for multiple reasons. It has the potential to serve as a case study including lessons learned that would be of benefit to future management program design and application in other fisheries. The SSC appreciates the historical information on socioeconomic data, but suggests that the clarity and readability of the SAFE could be increased in the future by clearly defining sections that relate to historical versus current socioeconomic status.