SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON STOCK ASSESSMENT PLAN AND TERMS OF REFERENCE – FINAL ACTION

The Scientific and Statistical Committee (SSC) discussed stock assessment priorities for new groundfish stock assessments for 2023 and 2025 and final revisions to the Terms of Reference (TOR) for the 2023-2024 groundfish stock assessment process. The additional two TORs for the 2023-2024 groundfish rebuilding analyses and groundfish and coastal pelagic species (CPS) methodology reviews are endorsed by the SSC with no changes. The upcoming stock assessments will inform the harvest specifications and management measures decisions for groundfish fisheries in 2025 and beyond. Drs. Jim Hastie and Chantel Wetzel (Northwest Fisheries Science Center) presented an overview of stock assessment prioritization materials. Dr. John Budrick (California Department of Fish and Game) guided discussion on questions posed by the Council, and previously discussed by the Groundfish Subcommittee. The SSC appreciates the extensive analyses and reports completed for this agenda item.

The SSC agreed on a limited number of final revisions to the draft TOR for groundfish stock assessments for 2023. The CPS Subcommittee report appended to Agenda Item D.2.a, Supplemental SSC Report 1 notes changes that were made relative to the previously combined groundfish and CPS TOR, most of which have also been made in the groundfish TOR. This revised version of the TOR is endorsed by the SSC and is provided to the Council as Agenda Item F.3, Supplemental REVISED Attachment 6 (Electronic Only).

The SSC discussed stock assessment priorities and data availability for upcoming stock assessments, including available age data, the backlog of unaged otoliths, and aging effort needed to produce ages, stock assessment workload, and the proposed Stock Assessment Review (STAR) panel calendar for 2023. There was broad agreement that black rockfish is a high priority for 2023 stock assessment as this species ranked first in the National Marine Fisheries Service stock assessment prioritization process. The 2023 assessment is likely to capture spatial stock structure through three separate regional stock assessment models. The current lack of size and age data to estimate regional growth curves for quillback rockfish is problematic; there is a lack of samples at small and large sizes that needs to be addressed prior to the next quillback rockfish stock assessment. While sampling for quillback rockfish age-structures is ongoing, conducting a benchmark stock assessment for quillback rockfish in 2025 may provide the opportunity to ensure the data necessary for growth estimation for quillback rockfish in California are available. The SSC discussed additional data from Remotely Operated Vehicle Surveys, the California Cooperative Fisheries Research Program, and fishery-dependent surveys that could provide indices of abundance and length compositions for a future quillback rockfish benchmark assessment in California.

The SSC discussed that, from an age reading perspective, it would not be possible to produce ages for 2023 stock assessments for petrale sole, canary rockfish, and rougheye/blackspotted rockfish in the same cycle, even if otoliths are subsampled from available samples. Rougheye rockfish are difficult to age and there is a large backlog of both survey and fishery unaged structures. The SSC suggests that conducting a rougheye rockfish benchmark assessment during 2025 would ensure a

greater number of ages would be available for the stock assessment. The possibility of conducting a data-moderate rougheye assessment was discussed briefly, but the SSC does not recommend this course of action due to high attainment by the fishery. If a data-moderate stock assessment for rougheye rockfish resulted in an unfavorable stock status, the Council could have similar issues to those encountered during 2021. The aging backlog for canary rockfish is smaller than that for rougheye rockfish so could more easily be brought up to date for 2023 stock assessments. While a canary rockfish assessment would require less aging capacity, it will require greater assessor capacity than rougheye rockfish due to spatial structure and fleet complexity.

The SSC endorses conducting stock assessments and making status determinations for all areas concurrently within a stock's designated management unit (i.e., stock definition). The SSC recommends 2023 copper rockfish assessments that encompass, at a minimum, all of California. However, given that stock definitions are not yet determined for copper rockfish, the Council may want to consider assessments that encompass the entire coast. Additional data, similar to those described for quillback rockfish, are available for California copper rockfish benchmark stock assessments. A sufficient number of otoliths are available to provide California growth estimates to replace current proxy growth estimates in the 2021 data-moderate assessments based on data from Oregon and Washington.

The SSC discussed the idea of working on assessments outside of the stock assessment cycle during summer and fall of the even years, with the aim of providing the Council an early view of results during November. The purported goal is to allow the Council to remove that stock from the stock assessment cycle based on preliminary results. SSC concerns with this approach include the expansion of the current stock assessment process and increased workload, and that such a process could result in the removal of stocks from the stock assessment cycle due to adverse results. The SSC is not in favor of the proposed process that would allow the removal of an assessment with preliminary results at the November Council meeting.

The SSC suggests deferring the STAR Panel schedule in Agenda Item F.3, Attachment 1 to the science centers and Council staff once Council decisions for 2023 stock assessment priorities have been finalized. The review for a data-moderate shortspine thornyhead assessment also needs to be completed at an early STAR Panel to allow for student engagement.

The SSC provides the following feedback on Council questions regarding the 2023 groundfish stock assessment process.

1. How will 2023 assessments proceed in line with discussions on stock definitions?

Stock definitions for management purposes for stocks to be assessed during 2023 should be defined during November 2022. While the stock designations will not define the spatial resolution of the assessment units, assessment units will need to be structured so that their results can be aggregated to match the stock definitions. The 2023 assessments will initially assume that the stock designations will match the current regions for harvest specifications, which could lead to mis-matches between stock definitions as designated by the Council and assessment areas.

2. How stocks of the same species may be assessed according to conservation need (i.e., do all areas need to be assessed at once)?

There is value in conducting assessments for all areas simultaneously given the desire to base assessments on similar assumptions and model specifications for all assessment units along the coast. Some stocks may be subject to a full assessment that implements more data-limited methods (e.g., 2021 vermilion rockfish in Washington), which would not limit the ability to assess all areas.

3. Presuming nearshore and shelf stocks should be assessed at as fine a scale as the data allows or when areas are combined, how should regional differences in status be evaluated?

Regional differences in stock depletion may depend on multiple factors, including fishing intensity and movement. Assessments will be structured so that their results can be aggregated to the stock definitions selected by the Council, but there may be multiple assessment areas within each stock as designated by the Council, providing some information on regional stock depletion differences. Assessment areas will be based on the availability of data and preliminary analyses that will be brought forward at the pre-assessment workshops. In some cases, it may be possible to allocate overfishing limits within an assessment area to a finer resolution if there is evidence for localized depletion at a spatial scale finer than that of the assessment.

4. What is the feasibility of a research assessment for shortbelly rockfish in 2023, 2025, or out-of-cycle?

The last assessment of shortbelly rockfish was conducted as a research assessment in 2007. Shortbelly is currently an ecosystem component species that is not identified as a priority species for 2023 assessment. If the Council wishes to assess shortbelly rockfish, it should be prioritized for a future full assessment and not done out-of-cycle.

PFMC
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