SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON FISHERY MANAGEMENT PLAN AMENDMENT – SARDINE STOCK DEFINITION AND FISHERY MANAGEMENT UNIT REVISION

The Scientific and Statistical Committee (SSC) reviewed the "Analysis of the PPA Sardine stock Definition and Review of Next Steps for Revision of the Sardine stock definition in the Coastal Pelagic Species Fishery Management Plan" (Agenda Item F.5, Attachment 1) along with the "Supplemental Report: Planning for Next Steps" (F.5, Supplemental Attachment 2) and the Supplemental NMFS Report. Katrina Bernaus (Council Staff) was available to clarify Council requests and answer questions.

Pacific Sardine Stock Definition and Workload Implications

Alternative 1, which would create a single management stock based on all Pacific Sardine in U.S. waters, is compatible with scientific information indicating a lack of genetic differentiation between what are currently recognized as a Northern Subpopulation (NSP) and a Southern Subpopulation. Evidence suggests a genetically well-mixed population that spans international boundaries. A management stock operationally defined to exclude the part of the population in Mexico may be necessary for management tractability. However, biological analyses to derive reference points and overfishing limit (OFL), acceptable biological catch (ABC) and harvest guideline (HG) harvest control rules (HCRs) will need to account for the biological dynamics and removals occurring throughout the biological range.

Substantial review and revision of reference points and the inputs to HCRs will be necessary if Alternative 1 is adopted as the interim Final Preferred Alternative (iFPA). Although the general form of the HCRs may not need to change, the biological analyses and assumptions underpinning the current values or functional forms for E_{MSY} and MSST reflect a stock structure hypothesis that would no longer be supported. Similarly, values or functional forms for FRACTION, CUTOFF, and MAXCAT were informed by simulations that assumed a different biological understanding than would be implied by Alternative 1. Restricting the assessed BIOMASS to U.S. waters might eliminate the need for a DISTRIBUTION term in the HG HCR, but biological connectivity with Mexico would need to be accounted for when evaluating the HCRs. The workload associated with reviewing and revising HCRs and biological reference points will be substantial, and the timeline presented in Attachment 1 and Supplemental Attachment 2 is almost certainly unrealistically short.

A benchmark or research assessment of Pacific Sardine coastwide would be necessary to derive the updated biological parameters that would allow for selection of biological reference points. Such an assessment would also be the first step in providing the biological parameters needed to analyze the consequences of alternative HCRs using management strategy evaluation (MSE). Efficient development of an MSE that would address management needs would require close collaboration between analysts, the SSC, the CPS advisory subpanel (CPSAS), the CPS Management Team (CPSMT), and Council. Consideration should be given during the MSE to include evaluation of HCRs that depend on survey estimates of abundance rather than assessment model-based estimates of 1+ biomass.

Supplemental NMFS Report 1 indicated that NMFS could complete a new benchmark assessment in time for review by April of 2028. A new assessment based on a revised stock definition would be necessary to allow informed review of the biological reference points and HCRs. Therefore, completion of a coastwide benchmark assessment for Pacific Sardine should be a high priority if the stock definition is changed. An update assessment of the NSP could address stakeholder questions about age-1+ biomass relative to the current NSP MSST, which might remove some of the constraints currently faced by the fishery. The SSC strongly recommends proceeding with an agenda item in June 2026 to more fully explore the workload tradeoffs and prioritization necessary for effective and timely Coastal Pelagic Species management.

Japanese Sardine

While the SSC concurs that including Japanese Sardine in the assessed biomass and counting Japanese sardines against the catch limit is appropriate given the lack of information available for realtime distinction between the species, some clarification of the SSC's previous recommendations regarding Japanese Sardine is warranted relative to how they are characterized on page 9 of Attachment 1. The SSC did not make a direct recommendation to treat Japanese Sardine the same way Pacific Sardine are treated. The SSC only recommended that the way Japanese Sardine are treated when assessing biomass should be consistent with the way Japanese Sardine are treated in comparing catch against catch limits -- i.e., either included in both calculations or excluded from both calculations.

PFMC
04/07/26