SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON REVIEW OF 2023 FISHERIES AND SUMMARY OF 2024 STOCK FORECASTS

The Scientific and Statistical Committee (SSC) discussed the Review of 2023 Ocean Salmon Fisheries (Supplemental Attachment 2) and Preseason Report I for 2024 (Supplemental Attachment 3). Dr. Michael O'Farrell (Southwest Fisheries Science Center, Salmon Technical Team [STT] Chair) provided a brief summary of the reports and members of the STT were available to answer questions. The SSC appreciates the work of the STT in compiling the reports and providing a draft of the Sacramento River fall Chinook (SRFC), Klamath River fall Chinook (KRFC), and Willapa Bay natural coho forecasts. The full Preseason Report I was not available until days before the SSC met, limiting a comprehensive review of the other forecasts.

The Council sets annual catch limits (ACLs) for SRFC, the indicator stock for the Central Valley fall Chinook complex, KRFC, the indicator stock for the Southern Oregon/Northern California Chinook complex, and Willapa Bay natural coho. Preseason Report I provides the ACLs for these stocks (Table V-5). The forecasts for SRFC and Willapa Bay natural coho were derived from forecast models that were reviewed and approved by the SSC and Council in previous years. The SSC found the calculations of the three acceptable biological catches (ABCs) and corresponding ACLs correct based on the forecasts for all three stocks.

As of March 2023, four stocks met the criteria for overfished (KRFC, Queets River natural coho, Queets Spring/Summer Chinook) or not overfished/rebuilding (Juan de Fuca natural coho). The updated status of these four stocks are:

- KRFC. The three-year geometric mean (2021 – 2023) natural area spawning abundance is 30,134, which is below the minimum stock size threshold (MSST) of 30,525. The stock continues to meet the criteria for overfished status.
- Queets River natural coho. The three-year geometric mean (2020 – 2022) escapement was 6,624, which is above the MSST and S_{MSY} (4,350 and 5,800, respectively). The stock meets the criteria for rebuilt status.
- Queets Spring/Summer Chinook. The three-year geometric mean escapement (2020 – 2022) was 346, which is slightly less than the MSST of 350. This stock continues to meet the criteria for overfished status.
- Juan de Fuca natural coho. The three-year geometric mean (2020 – 2022) escapement is 14,461, which is more than the S_{MSY} of 11,000. The stock meets the criteria for rebuilt status.

The Sacramento River late fall Chinook and natural-area Sacramento River spring Chinook stocks had the lowest escapements observed since at least 2011 (Review of 2023 Ocean Fisheries Table B-3) and the 2024 forecast for Sacramento River winter Chinook is the lowest forecast on record (1,081 fish; Preseason Report I Table II-2).

No Chinook or coho stocks were determined to be subject to overfishing. However, estimated exploitation rates (ER) for all coho and most Chinook stocks were only available through 2021

(Tables II-6 and III-7; Review of 2023 Ocean Fisheries). Only two Chinook stocks (SRFC and KRFC) had ERs for 2022 (Table II-6).

Although no cases of overfishing were reported, the Maximum Fishing Mortality Threshold (MFMT) reference points for many stocks are based on old data and analyses, and a review and re-analysis of MFMTs using recent data and newer methods is warranted. The analyses presented in Agenda Item C.4 Supplemental Klamath River Fall Chinook Workgroup Report 2 on KRFC productivity show that updating these reference points can be completed relatively quickly.

For Southern Oregon Chinook (specifically its Rogue River Fall Chinook escapement metric), 2022 escapement was below the MSST, 2023 escapement was below S_{MSY}, and the 2024 Rogue Ocean Production Index (ROPI) value is one of the lowest on record. This creates an elevated risk that the geometric mean escapement for 2022-2024 could fall below the MSST.

The SSC strongly recommends that salmon forecasts used in the PFMC process include measures of uncertainty and that methodologies producing salmon forecasts be made available. Documentation of salmon forecast methodologies are also relevant to Fishery Ecosystem Plan Initiative 4, because they inform where and how ecosystem information is currently used in salmon management.

PFMC
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