

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON
SALMON METHODOLOGY REVIEW PRELIMINARY TOPIC SELECTION

The Scientific and Statistical Committee (SSC) met with the Salmon Technical Team (STT) and the Salmon Model Evaluation Workgroup (MEW) represented by Dr. Michael O'Farrell (Southwest Fisheries Science Center) and Ms. Angelika Hagen-Breaux (Washington Dept. of Fish and Wildlife, WDFW) to discuss possible methodology review topics for 2021.

Items proposed for review by the STT and MEW are listed below with the responsible party listed in parentheses:

1. Complete the Willapa Bay coho forecast methodology review. In the March 2020 review, the SSC endorsed the Willapa Bay coho forecast for one-time use in 2020 and identified numerous potential improvements. (STT and WDFW);
2. Review Oregon Production Index, Hatchery (OPIH) forecast. Many recent forecasts have been higher than the postseason abundance estimates and the SSC could not find a clear record of previous reviews. (STT and Oregon Production Index Technical Team [OPITT]);
3. Review Sacramento River Fall Chinook (SRFC) conservation objective and consider a natural-area escapement goal as recommended in the rebuilding plan for this stock, and by the Southern Resident Killer Whale Work Group and the STT. (STT, California Dept. of Fish and Wildlife, U.S. Fish and Wildlife Service, and National Marine Fisheries Service);
4. Update Fisheries Regulation Assessment Model (FRAM) documentation. Various components in FRAM were changed over time and the previous documentation is not fully reflective of the current model. Considering the workload of MEW members, the MEW plans to prioritize updating the overview section in time for a 2021 review. The MEW is also planning for a FRAM workshop in October 2021 for new members and agency staff. It was noted that the old FRAM documentation which was previously on the Council website is not currently available. (MEW); and
5. Evaluate FRAM postseason performance. While there are numerous aspects of FRAM performance that should eventually be reviewed, for 2021 the MEW proposes to do a comparison of recent postseason FRAM runs to the Pacific Salmon Commission's Chinook Technical Committee exploitation rate analysis (CTC ERA) estimates. Evaluating this comparison will require clear documentation. (MEW).

The SSC recommends a high priority for the topics listed above and proposes the following additional topics to be considered:

6. The SSC Salmon Subcommittee should go through the salmon fishery management plan and clarify the SSC's role in reviewing salmon forecasts and other models and analyses informing the management process. (SSC);
7. Explore methods to quantify uncertainty in forecasts and to incorporate the uncertainty into the management process;
8. In March 2021, Preseason Report 1 revealed that there was a recent change in the marine survival component of the Queets coho forecast that has not been reviewed by the SSC. In

March 2021, the SSC recommended a table tracking changes in forecasting methods over time be included in Preseason Report 1 (see the [March 2021 SSC report](#)). The SSC is unclear on its role in reviewing every change to forecasts for stocks that do not have acceptable biological catches, so addressing item number 6 would provide clarity on the priority for this item; and

9. Due to COVID-19, there were gaps in the marking and/or tagging of juvenile fish with coded-wire tags in 2020, which may affect implementation of harvest models in future years as these cohorts recruit to the fishery.

PFMC
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