

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON
THE SOUTHERN RESIDENT KILLER WHALE ENDANGERED SPECIES ACT
CONSULTATION UPDATE AND RISK ASSESSMENT

Drs. Derek Dapp (WDFW) and Will Satterthwaite (SWFSC) met with the Scientific and Statistical Committee (SSC) to discuss the technical work of the Ad Hoc Southern Resident Killer Whale (SRKW) Workgroup, contained in Chapter 5 and the appendices of [Agenda Item E.4.a, Supplemental SRKW Workgroup Report 2, November 2019](#). The Workgroup was tasked with quantifying the effects of PFMC Chinook salmon fisheries on SRKW demographics. The SSC found the data sets used and the analyses performed to be reasonable and appropriate for the questions at hand given the complexity of the problem and the challenges presented by small populations. The SSC thanks the analysts for the work that they have put into this project. The SSC notes that the analysts carefully spelled out their assumptions and caveats in preparing data sets and carrying out their analyses, and produced helpful advice for future work.

The SSC agrees that further analyses are unlikely to yield more informative results, as the regressions, generalized linear models, and cluster analyses had similar results to each other and to previous analyses. Given the large amount of data usually required to detect small differences in survival of long-lived species, further work is unlikely to resolve these relationships.

The SSC did not find the available information sufficient to quantitatively justify a threshold at which risk may be greater for SRKWs due to the effects of PFMC salmon fisheries. An analysis that included fisheries impacts over a broader spatial scale (including Southeast Alaska, Canada, and the Puget Sound fisheries) may be more informative about the effects of fisheries on SRKW demographics, but such an analysis is beyond the scope of the Workgroup. It is likely that historical variability in salmon abundances outside of the range observed during the time period analyzed may have a more detectable effect on SRKW demographics. The Workgroup plans to synthesize their findings over the winter. The SSC does not see a need to review a purely qualitative synthesis, however, if the synthesis is quantitative, or additional quantitative analyses are developed, the Workgroup should notify the SSC Chair and Salmon Subcommittee Chair as soon as possible to discuss review of the methods before the March 2020 Council meeting.

PFMC
11/16/19