

Agenda Item E.3.a
Supplemental SRKW-WG Presentation 1
March 2020



Photo: Holly Fearnbach, SR3,
SeaLife Response, Rehabilitation and Research

Southern Resident Killer Whale Workgroup

Co-Chair, PFMC Ad Hoc SRKW Workgroup
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March 4, 2020

Overview

- In April 2019 Council tasked an Ad-Hoc Workgroup with reassessing the effects of Council-area ocean salmon fisheries on Southern Resident Killer Whales
 - The Workgroup includes representatives from West Coast tribes; the states of California, Oregon, Washington, and Idaho; the PFMC; and NMFS' West Coast Region, Northwest Fisheries Science Center, and Southwest Fisheries Science Center.
- We gave our last update at the Council's November 2019 meeting

Ad-Hoc Workgroup Schedule

Progress to date

2019 Ad-Hoc SRKW Workgroup Schedule for Completing Assigned Tasks		
Date	Task	Comment
May 23-24	Meeting in PDX	Workgroup purpose, review Orca status, past fishery evaluations, framework/criteria for past risk assessment (RA). Identify current data gaps, list potential framework/criteria for current RA. Assign tasks to WG members.
June 5	Distribute a compiled pre-fishery ocean abundance	WDFW (Derek Dapp)
June 6	Distribute PFMC specific fishery exploitation rates	WDFW (Derek Dapp)
June 5-7	will reach out to O. Shelton about potential new model availability	SWFSC / WDFW (Will Satterthwaite & Derek Dapp)
June 7	Distribute spatial / sighting data for coastal temporal mapping purposes	NMFS (Eric Ward/Teresa Mongillo) no later than June 14
June 10	Submit Progress Report	June Supplemental Briefing Book deadline
June 20	SAS/STT briefing	At June Council meeting
June 21	Present Progress Report	June 19-23 (Council meeting). No SRKW workgroup mtg
June 21	Review the priority stock list and provide comments	WDFW / ODFW / CDFW - (Derek Dapp, Chris Kern, Brett Kormos)
July 2	Webinar	Review Council direction/comments from June Mtg, assign tasks, finalize agenda for next mtg.
July 5	Scope and provide a metric index evaluation recommendation for South of Falcon fisheries	SWFSC / CDFW (Will Satterthwaite & Brett Kormos)
July 23-24	Meeting in Vancouver, WA	Update on Orca status, address data gaps, and identify framework/criteria for RA. Assign tasks for RA. Identify fishery evaluation criteria, assign tasks. Begin scoping possible conservation measure(s) or management tool(s) to propose based on the evaluation criteria developed for the risk analysis, consider including draft, or example Alternatives to help illustrate model sensitivity, provide context/sideboards.
August 5	Risk Analysis draft sections due	Intro, Status, Fisheries, FMP (NMFS staff)
August 6	Workgroup webinar	Discuss topics related to completing the risk analysis.
August 15	Submit SRKW Progress Report	Advanced Briefing Book deadline
August 20	Risk Analysis draft sections due	Model outputs (WDFW/NWFSC/SWFSC)
September 4	Webinar SAS/SRKW	If RA identifies a risk, then solicit SAS input to help develop alternatives (conservation objectives/management tools) for Council consideration at the September meeting.
September 4	Supplemental documents due.	September supplemental Briefing Book deadline.
September X	Submit draft Risk Analysis Report	
September 14	Present draft Risk Analysis Report	September 11-18 Council meeting in Boise ID.
September 24	Workgroup webinar	Sept Council de-briefing, prep for finalizing RA
October 8-9	Meeting in PDX (Sheraton Airport Hotel)	Discuss Council direction. Solicit input from SAS to help shape alternatives if needed. NMFS begins NEPA process.
October 17	Submit Report w PPA's	Advanced Briefing Book deadline.
October 29?	Webinar SAS/SRKW	As needed.
November 16-ish	Present Report w PPA's	November 13-20 Council meeting in Costa Mesa. SRKW/SAS may attend. Council to adopt FPA as needed.

Updated 08/06/19

The Workgroup has held an additional two-day meeting and webinar to address the Council's questions from the November 2019 meeting, in order to progress towards finalizing its risk assessment and recommendations.

Base materials have not changed from what's posted online.
<https://www.fisheries.noaa.gov/west-coast/southern-resident-killer-whales-and-fisheries-interaction-workgroup>

Each workgroup meeting thus far, including webinars, has allowed for multiple public input opportunities.

Risk Assessment

Agenda Item E.3.a
SRKW Workgroup Report 1 (*electronic only*)
March 2020

Pacific Fishery Management Council Salmon Fishery Management Plan Impacts to Southern Resident Killer Whales

FINAL DRAFT Risk Assessment

February 2020

Components reviewed at September meeting

- ✓ Section 1: Introduction
- ✓ Section 2: Status of the SRKW
- ✓ Section 3: SRKW and Chinook Salmon Fisheries
- ✓ Section 4: PFMCC Salmon Fisheries description
- ✓ Section 5: Risk Assessment
- ✓ Section 6: Integration & Synthesis

Link to current draft report:

<https://www.pcouncil.org/documents/2020/02/e-3-a-srkw-workgroup-report-1-electronic-only.pdf/>

Added Components



Photo: L85, M. Pinnow.

Chapter 2: Status of the SRKW

Updated the chapter to include the information used by NMFS to develop the proposed rule for critical habitat update

Chapter 3: SRKW AND CHINOOK SALMON FISHERIES

Added to Chapter 3 to now include the summary description of NMFS' 2019 biological opinion and assessment of fisheries impacts on SRKW in South East Alaska Fisheries.

Chapter 4: PFMC Salmon Fisheries Description

Chapter 4 has elements capturing past performance of the Salmon FMP from 1992 through 2016 that have been updated for when fisheries might overlap with SRKW presence.

Explains that the percent of prey available to SRKW remaining after Council salmon fisheries, showing an increasing trend coastwide over the last several decades.

Updated salmon seasons past performance relative to tribal fishing rights in Chapter 4.



Photo: Makah Indians paddle away from the rising sun as they head from Neah Bay, Washington, Photo: AP

United States v. Oregon judgement

Case pertaining to treaty tribal fisheries in the Columbia River and stocks originating from therein

United States v. Washington judgement

Case pertaining to treaty tribal fisheries in Puget Sound and the Washington Coast and stocks originating from therein

Parravano v. Secretary of Commerce Brown and Secretary of Interior Babbitt

Case pertaining to treaty tribal fisheries in the Klamath River and stocks originating from therein

Added Components (cont.)



Chapter 5: Risk Assessment

Chapter 5 has a full description of methodology, along with appendices which:

- Estimate reductions in Chinook salmon abundance by time and area that are attributable to Council-area ocean salmon fisheries.
- Incorporated some additional figures and text explaining the Chinook distributions used from the Shelton et al. 2019 model, along with the abundance estimates from FRAM or other models which assigns distributions for the stocks and therefore fundamentally drives the results.
- Now that all datasets have been checked for quality control and models adjusted we have one of the fitted regressions meeting the typical criterion often associated with “statistical significance” (SRKW survival versus NOF TS1 abundance with one year lag, Table 5.5.a has been simplified to a summary)

Added Components



Photo: J Pod, J. Ford and S. Steven.

Chapter 6: Integration and Synthesis

- The Workgroup report suggests that Chinook salmon abundance North of Falcon (NOF) is more consistently important to SRKW than abundance in South of Falcon (SOF) areas.
- Whales are observed in the NOF in all seasons and likely have some direct overlap with the fisheries every year, whereas there is likely limited overlap in some years SOF.
- The contribution of SOF Chinook to SRKW diet may also be largely confined to during the winter/spring season, after maturing fall run adults that escaped the current year's fishery leave the system.

Added Components



Photo by J. Koeppen F/V Lulu

- Appendix A: in September Draft
- Appendix B: in September Draft
- Appendix C: in November Draft
- Appendix D: in November Draft
- Appendix E : in November Draft
- Appendix F: **moved**
 - Table 5.5.a from the November draft. In the main text there's now a simplified version of that table, while the old Table 5.5.a is reproduced in full in the appendix, with a slightly revised and expanded explanation.
- Appendix G: **new**
 - Added an appendix which captures the STT's report for stocks with FMP model representation against stock priority lists previously developed

Accomplishments

During the last 12 months

Workgroup has:

- Documented the current status of the SRKW DPS
- Described and reviewed prior evaluations of SRKW and Chinook salmon fishery interactions
- Captured the process by which the Salmon FMP operates
- Developed methodology to examine abundance aggregates of Chinook salmon in specific areas of the ocean based on distributions inferred from the most recent modeling efforts (Shelton et al. 2019), across three time steps to examine potential relationships to SRKW demographic criteria
- Examined SRKW demographic performance to identify past periods of greater or lesser risk for the SRKW population
- Quantified and documented estimated changes in Chinook abundance attributable to the totality of PFMC directed ocean salmon fisheries.
- Described current fishery management and provide general description of the fisheries.
- Integrated and synthesized Council and SSC comments to date, trying to then synthesize the available information into likely possible effects from Council salmon fisheries on SRKW and how that might likely affect current status.



Photo by R. Leubert

Current Workgroup recommendation

Still left to do

As directed by the Council, the Workgroup is ready to continue to work with NMFS after the 2020 March meeting (as part of its assigned task) to provide potential recommendations for FMP management measures based on the Risk Assessment outcome.

The Workgroup has begun developing draft recommendations but needs more time to finalize them.

We would also like the opportunity to provide an executive summary to the Risk Assessment but at this point we do not expect further substantive edits to the content or approach.



Photo by Jill /Blue Moonbeam Studio

A photograph of a fishing boat at sunset. The sun is low on the horizon, creating a warm orange glow. In the foreground, the silhouettes of fishing equipment, including a rod and reel, are visible. The text "QUESTIONS?" is overlaid in white, bold, sans-serif font in the upper right quadrant.

QUESTIONS?

A vertical blue line is positioned to the left of the text "THANK YOU".

THANK YOU