

Kuskokwim River Salmon Management Working Group

1 (800) 315-6338 (MEET) Code: 58756# (KUSKO)

ADF&G Bethel toll free: 1 (855) 933-2433

Meeting Agenda

Date: 06/8/2022

Time: 10:00 a.m.–12:00 p.m.

Place: ADF&G Office, Bethel, AK

Time Called to Order:

Chair:

ROLL CALL TO ESTABLISH QUORUM:

Upriver Elder:
Downriver Elder:
Commercial Fisher:
Lower River Subsistence:
Middle River Subsistence:
Upper River Subsistence:
Headwaters Subsistence:

QUORUM MET? Yes / No

Member at Large 1:
Member at Large 2:
Sport Fisher:
Western Interior RAC:
Y-K Delta RAC:
KRITFC:
ADF&G:

INTRODUCTIONS:

INVOCATION:

APPROVAL OF MINUTES: *Optional. ADF&G does not prepare official meeting minutes.*

APPROVAL OF AGENDA: *the agenda may be amended at this time.*

USFWS/KRITFC UPDATE:

ADF&G MANAGEMENT ACTIONS UNDER CONSIDERATION:

PEOPLE TO BE HEARD: *Non-Working Group Members*

CONTINUING BUSINESS:

- Subsistence Reports: Lowest River, ONC Inseason Subsistence Report, Lower River, Middle River, Upper River, Headwaters
- Inseason Harvest Report (ONC/KRITFC)
- Overview of Kuskokwim River salmon run assessment:
 - a. Test Fisheries (Bethel and Aniak):
 - b. Sonar/Weirs/Aerial Surveys/Other:
 - c. Subsistence Division Project Update:
 - d. NVN Report:
- Working Group KRITFC Representative Report:
- Commercial Catch Report: N/A
- Processor Report: N/A
- Sport Fish Report:
- Intercept Fishery Report: *optional*
- Weather Forecast:
- Discussion of ADF&G Management considerations and discussion of possible alternatives (recommendations from the Working Group):
- Motion for Discussion and Action:

OLD BUSINESS:

- **Nominate WG representative to serve at KRITFC inseason meetings**
- **Election of Co-Chairs**

NEW BUSINESS:

COMMENTS FROM WORKING GROUP MEMBERS:

NEXT MEETING DATE: _____ **Time:** _____ **Place:** _____

Informational Packet

Information Packets *ARE*:

- Intended to help inform Working Group discussions.
- To be viewed and used in context with Working Group meetings only.

Packets *ARE NOT*:

- To be viewed as standalone documents.
- A final say on fisheries management decisions.

Please use this information responsibly:

Packet information is an incomplete snapshot of an ongoing discussion and changing conditions. Packet information should not be reproduced for any purpose other than to describe Working Group meeting discussions.

Misuse of Packet information can contribute to misunderstandings that can **cause harm to salmon users** and potentially **damage salmon resources**.

Ask Questions: ADF&G staff will be happy to answer biology and management questions. Please call **1-855-933-2433** to reach ADF&G Kuskokwim Area staff.

Attend Meetings: Each Working Group meeting is announced at least 48 hours prior to time and date of meeting. In addition, each meeting is recorded. Recordings can be found here:
http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyarea_kuskokwim.krsmwg

Viewing the information packet while listening to meetings/recordings will provide a better understanding of the information presented in this packet.

**Thank you,
Savannah Hollingworth
Working Group Coordinator**

Orutsarmiut Native Council (ONC) Inseason Harvest Monitoring Weekly Report

June 8, 2022

Summary of Interview Activities:

Comments from interviewees at the boat harbor and fish camp from the June 1st and June 4th set net opportunity include the following:

One fisher stated that due to high water, fish will be difficult to catch, indicating the number of fish coming in may seem lower than it is compared to previous years. A couple fishers stated they want more openers this season. One fisher expressed that the trawlers need to be stopped. Some fishers made remarks on the increased cost of fuel and how it can impact fishing. One fisher said they want the openers to be scheduled during low tide because the water is too high. One fisher had concerns over non-federally qualified users fishing and recalled last year this being a frequent occurrence which caused an increase in combat fishing. They recommended this being enforced more. They also mentioned that the upper Kuskokwim villages were getting more fish than the lower river. Another fisherman said that there should be more openers for subsistence and more consecutive openings towards the beginning of the season. One stated they wanted more regulation of commercial fishing. Lastly, another fisher was appreciative when they are updated with harvest estimates, sonar counts, and run predictions.

Table 1. Average number of salmon harvested by surveyed Bethel area fish camps and Bethel boat harbor from the June 1st set net opportunity.

Data Source	Number of Surveys Conducted	Average Chinook Salmon Harvest	Average Chum Salmon Harvest	Average Sockeye Salmon Harvest	Average other harvest	Net Length Range (ft.)	Mesh Size Range (in.)
Bethel Area Fish Camps	3	0	0	0	1.2	60-150	4-6
Bethel Boat Harbor	10	0.4	0	0	0.6	30-60	4-6

Table 2. Average number of salmon harvested by surveyed Bethel area fish camps and Bethel boat harbor from the June 4th set net opportunity.

Data Source	Number of Surveys Conducted	Average Chinook Salmon Harvest	Average Chum Salmon Harvest	Average Sockeye Salmon Harvest	Average other harvest	Net Length Range (ft.)	Mesh Size Range (in.)
Bethel Area Fish Camps	3	0.7	0	0	1	60	4-5.5
Bethel Boat Harbor	9	0.8	0	0	0.5	60	4-6

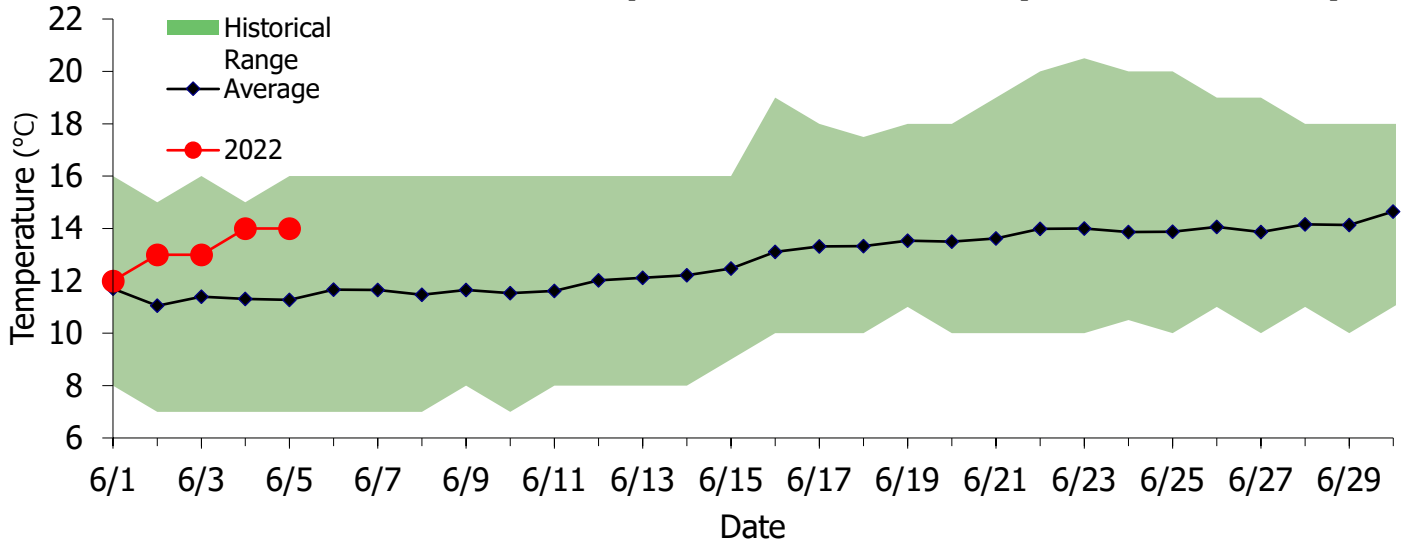
Chinook Salmon Age-Sex-Length (ASL) Sampling Program Recruitment

Thus far this season, there are 34 interested samplers from the Bethel community. We are continuing recruitment efforts at the Bethel boat harbor, Bethel area fish camps, and in the community.

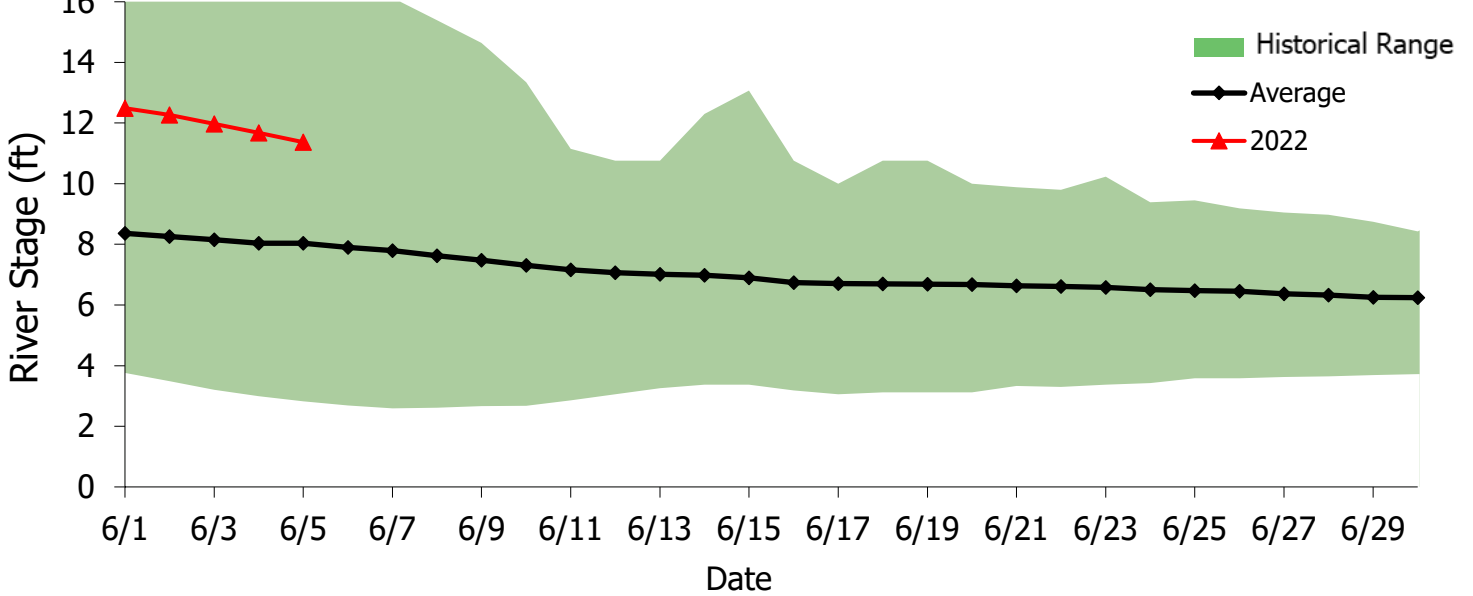
Fish Distribution

Thus far from May 29th through June 4th, we've delivered 2 Chinook salmon and 2 sheefish to Bethel area Elders. These fish were caught by the Alaska Department of Fish & Game Bethel Test Fishery.

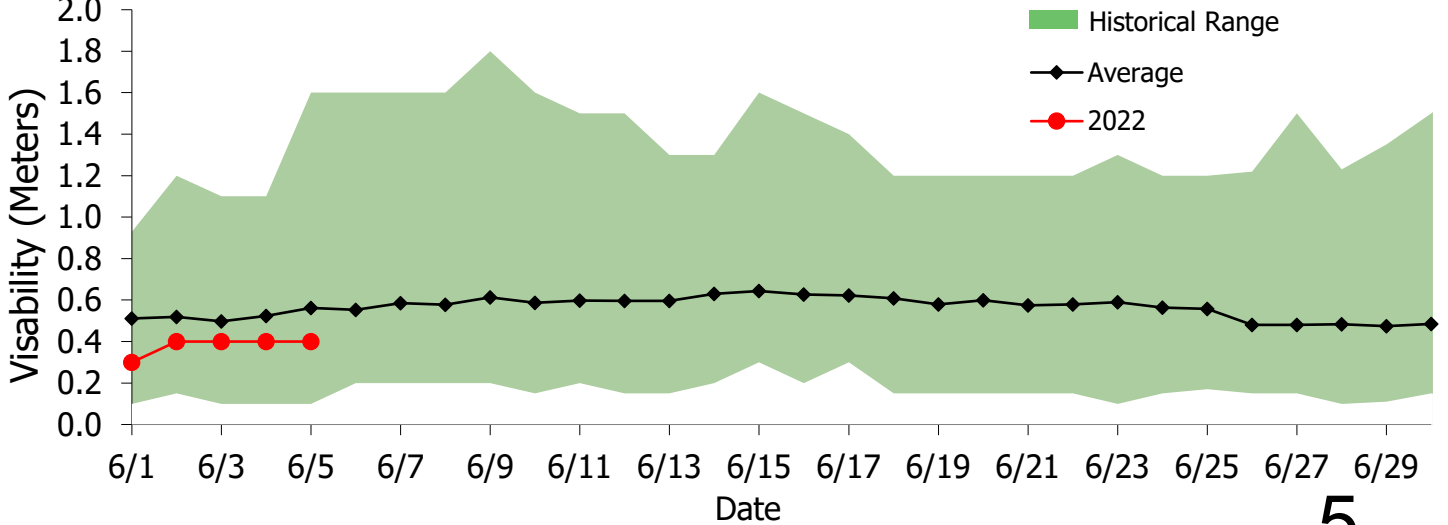
Historical Water Temperature at BTF Site (1984 to Present)



Kuskokwim River Water Level at Crooked Creek (1984 to Present)



Historical Water Clarity at BTF site (1984 to Present)



Kuskokwim River Salmon Assessment Update

6/6/2022



This document presents the key assessment information considered by managers in-season. The production of this document is a collaborative effort between USFWS and ADF&G. **All data and analyses contained are preliminary and are subject to change, so please make interpretations carefully.**

If you have any questions about the content, please contact Spencer Rearden (USFWS; spencer_rearden@fws.gov) or Sean Larson (ADF&G; sean.larson@alaska.gov). Major credit for the development of this data packet belongs to Benjamin Staton.

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Abbreviations:

- BTF: Bethel Test Fishery
- ATF: Aniak Test Fishery
- CPUE: Catch-per-unit-effort
- EOS: End-of-Season
- ADF&G: Alaska Department of Fish and Game
- KRITFC: Kuskokwim River Inter-tribal Fisheries Commission
- OTNC: Orutsaramiut Traditional Native Council
- USFWS: United States Fish and Wildlife Service
- YDNWR: Yukon Delta National Wildlife Refuge

To view escapement information, please visit the **ADF&G Kuskokwim River Fish Counts** page:

- <http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareakuskokwim.salmon#fishcounts>

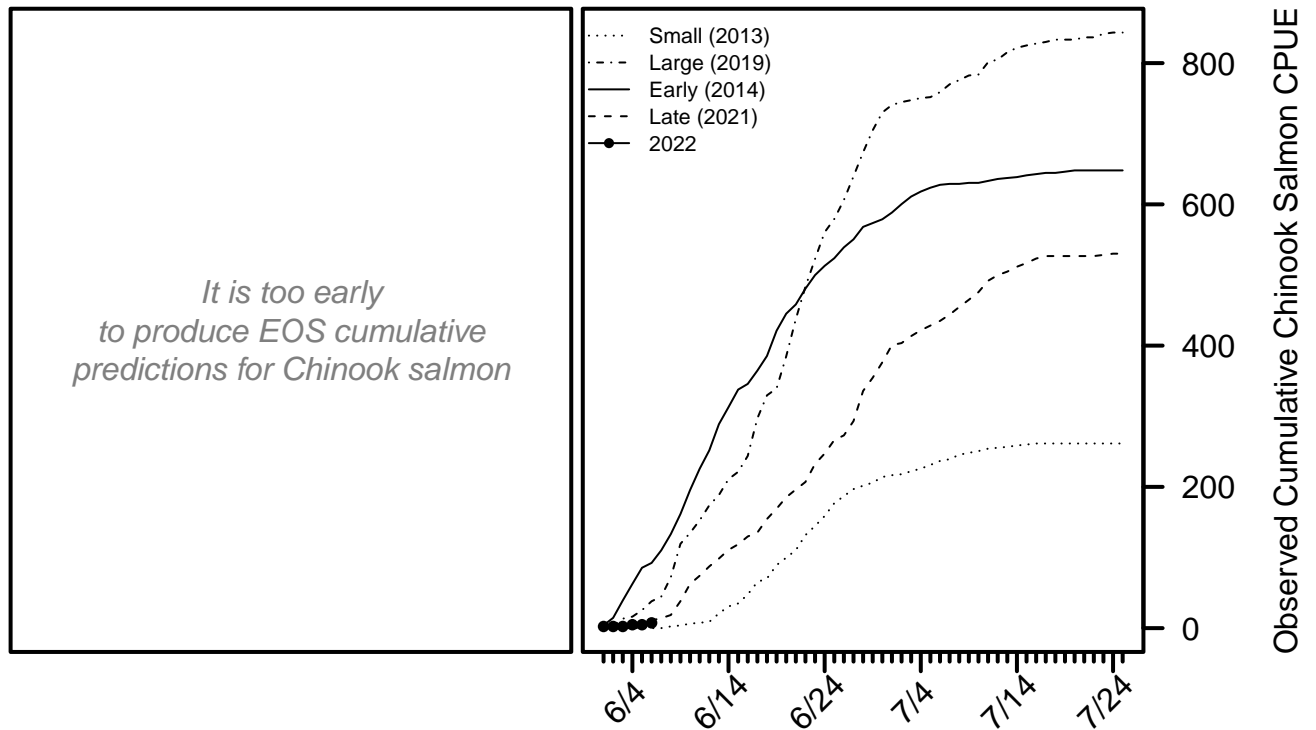
For the most up-to-date information regarding fishing opportunities please visit:

- USFWS: https://www.fws.gov/refuge/yukon_delta/wildlife_and_habitat/dailyupdate.html
- ADF&G: <http://www.adfg.alaska.gov/index.cfm?adfg=cfnews.main>

Chinook Salmon BTF Summary (6/6)

- The BTF daily CPUE was **3**.
- The BTF cumulative CPUE is now **7**.
- **29%** years since 2008 fell below this cumulative CPUE on this date.
- **2%** of the run is complete based on historical average run timing.
- **1% - 5%** of the run is complete based the central 50% of all historical run timing scenarios.
- **5% - 11%** of the run is expected to pass Bethel in the next 5 days.
- Over the last 3 days, Chinook salmon made up **100%** of the BTF catches, compared to **62%** on average.

Chinook Salmon Figure 1. *Left:* will show predicted cumulative EOS BTF CPUE according to various run timing scenarios when enough data have been collected. *Right:* The cumulative BTF CPUE from 2022 plotted along with four previous years intended to represent a range of early/late and small/large index values.



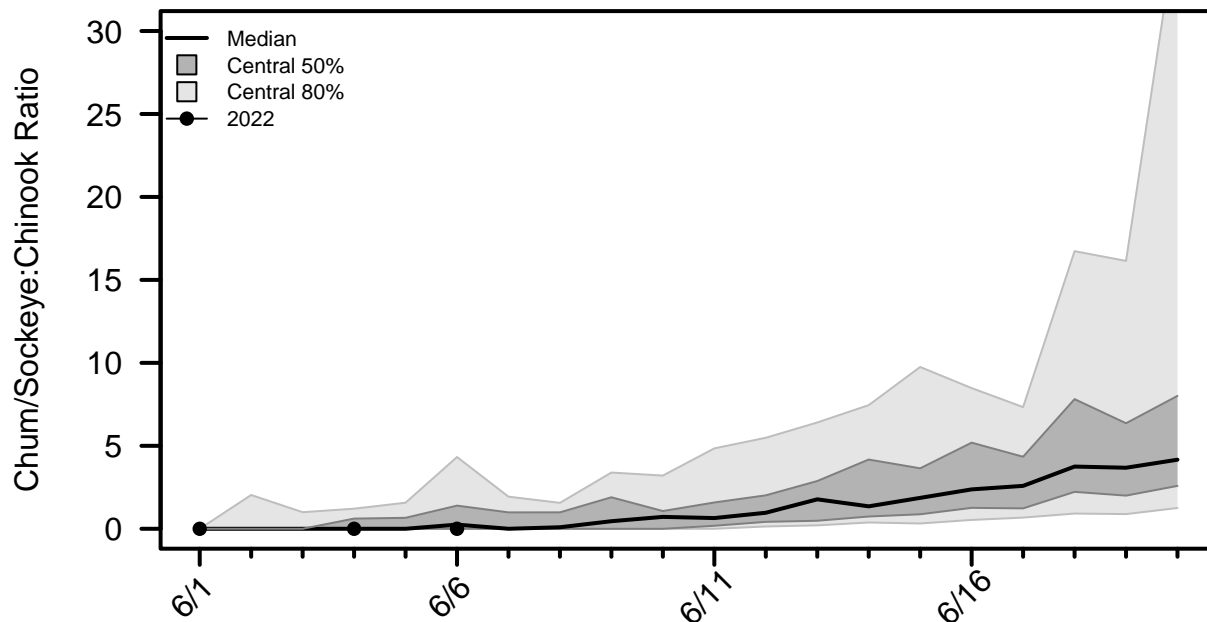
For more detailed information, see the [Chinook salmon appendix](#) at the end of this document.

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Chum/Sockeye:Chinook Salmon Ratio

This ratio is calculated by dividing the total number of chum and sockeye salmon counted by the number of Chinook salmon counted by a project each day. A value of zero indicates Chinook salmon were counted that day, but not chum or sockeye salmon. A missing value on a day the project operated indicates no Chinook salmon were counted that day.

Species Ratio Figure 1. Time series of the species ratio with historical quantiles shown as grey regions and the ratio time series for 2022 shown with points connected by lines.



Ratio Table 1. A subset of the species ratios displayed in **Ratio Figure 1**, including the ratios from the ATF.

Date	2022 BTF	BTF Median	BTF Lower 10%	BTF Upper 10%	2022 ATF
6/3	–	0	0	1	–
6/4	0	0	0	1.21	–
6/5	–	0	0	1.57	–
6/6	0	0.25	0	4.33	–
6/7		0	0	1.94	
6/8		0.09	0	1.56	
6/9		0.46	0	3.39	

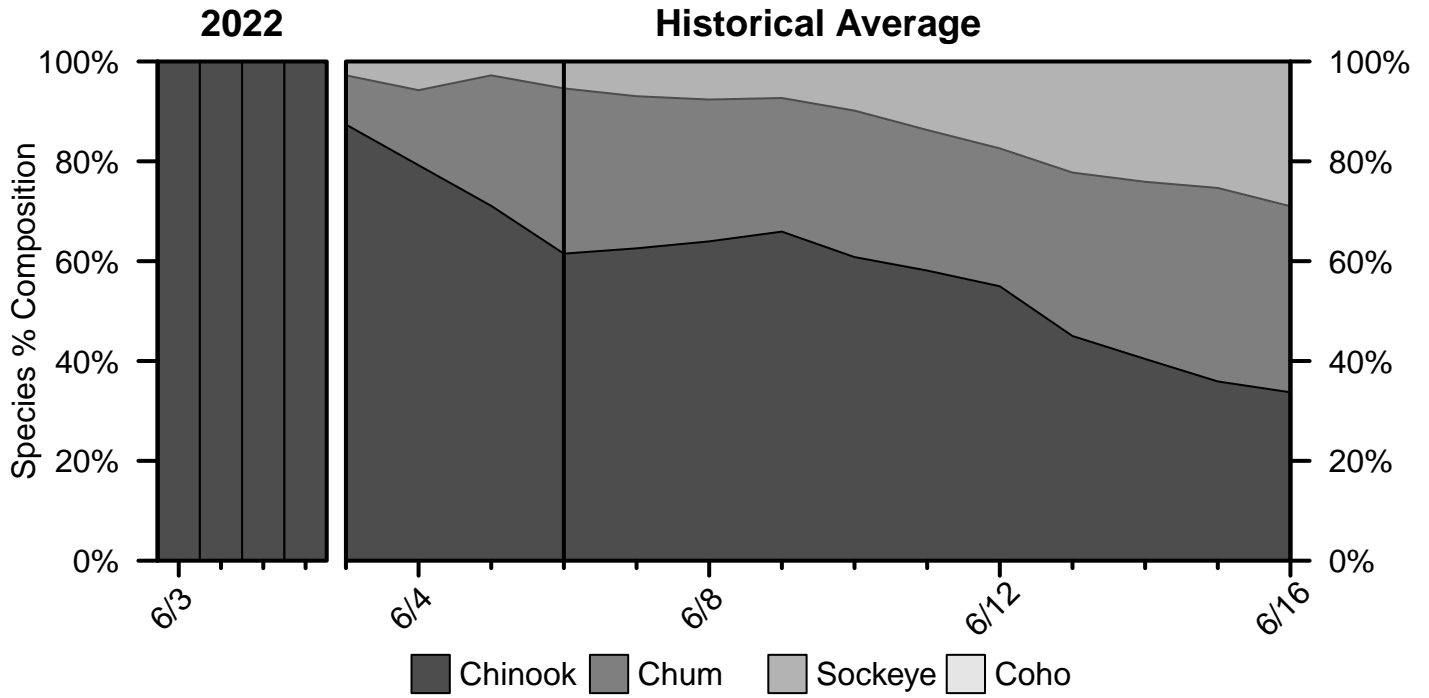
Ratio Table 2. The percent of previous years in which a given species ratio was exceeded at least once before a certain day in the BTF.

Date	Ratio > 1	Ratio > 3	Ratio > 5	Ratio > 10	Ratio > 20
6/3	11%	3%	3%	0%	0%
6/4	16%	3%	3%	0%	0%
6/5	29%	8%	3%	0%	0%
6/6	42%	16%	8%	0%	0%
6/7	50%	18%	8%	0%	0%
6/8	55%	21%	8%	0%	0%
6/9	68%	26%	8%	3%	3%

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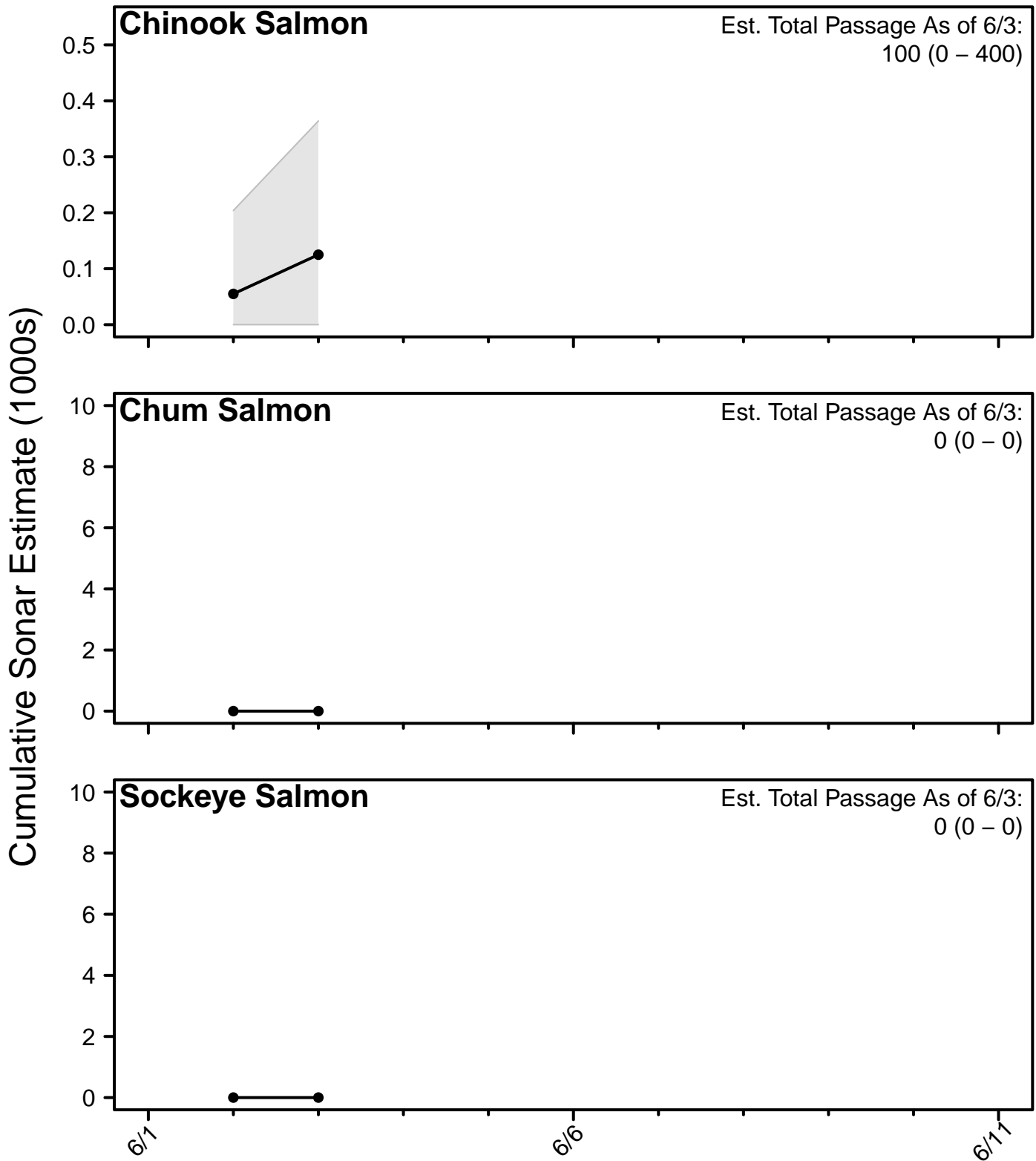
Percent Composition by Salmon Species

Percent Composition Figure 1. Species percent composition in the BTF from 2022 and based on the historical average. The composition presented on each day represents the average composition over the past 2 days.



Sonar Passage Estimates

Sonar Figure 1. Cumulative estimates of salmon passage from the 2022 sonar operation through the last complete reporting day. Grey bands show the 95% confidence intervals on each complete reporting day.



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In-Season Harvest Estimates

In-season harvest estimates are produced by combining counts of total fishing effort (usually obtained via aerial survey) and on-the-ground fisher interview information using statistically-rigorous methodology. The data collection efforts to produce these estimates is a highly collaborative effort, involving staff from ADF&G, KRITFC, ONC, and USFWS. Much more detailed information can be found on the YDNWR website (https://www.fws.gov/refuge/yukon_delta/wildlife_and_habitat/dailyupdate.html).

In the tables below, CV stands for coefficient of variation, which is a commonly-used measure of uncertainty in the estimate (larger CV values are more uncertain).

Harvest Table 1. Estimated total Chinook salmon harvest within the YDNWR, excluding the section between Akiak and Kalskag.

Date	Daily Harvest	Cumulative Harvest	Daily CV	Cumulative CV
6/1	30	30	0.76	0.76
6/4	80	110	0.28	0.29

Harvest Table 2. Estimated total chum salmon harvest within the YDNWR, excluding the section between Akiak and Kalskag.

Date	Daily Harvest	Cumulative Harvest	Daily CV	Cumulative CV
6/1	0	0	0	0
6/4	0	0	0	NA

Harvest Table 3. Estimated total sockeye salmon harvest within the YDNWR, excluding the section between Akiak and Kalskag.

Date	Daily Harvest	Cumulative Harvest	Daily CV	Cumulative CV
6/1	0	0	0	0
6/4	0	0	0	NA

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Chinook Salmon Appendix

Chinook Salmon Table A1. Cumulative CPUE from the BTF.

Date	2022	2021	2020	2019	2018	5-Yr Avg.	2008 - 2021 Avg.
6/3	2	2	2	13	5	5	9
6/4	5	7	3	16	11	9	14
6/5	5	8	3	25	13	11	18
6/6	7	11	14	38	13	16	24
6/7		14	23	45	21	22	31
6/8		19	30	72	21	30	39
6/9		38	40	119	29	47	52
EOS		532	487	848	667	582	566

Chinook Salmon Table A2. Cumulative CPUE from the ATF.

Date	2022	2021	2020	2019	2018
6/3	0	0	0	0	0
6/4	0	0	0	0	8
6/5	0	0	0	15	8
6/6	0	0	0	21	8
6/7		0	0	21	16
6/8		0	0	27	16
6/9		0	0	27	23
EOS		1,891	1,874	1,691	820

Chinook Salmon Table A3. Percent of run complete according to various historical run timing scenarios from the BTF.

Timing	Midpoint	6/6 Cumulative %
Earliest	6/14	14%
Early 10%	6/18	8%
Early 25%	6/21	5%
Median	6/22	2%
Late 25%	6/25	1%
Late 10%	6/26	<1%
Latest	7/3	<1%

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Chum Salmon Appendix

Chum Salmon Table A1. Cumulative CPUE from the BTF.

Date	2022	2021	2020	2019	2018	5-Yr Avg.	2008 - 2021 Avg.
6/3	0	0	6	0	4	2	1
6/4	0	0	8	0	7	3	2
6/5	0	0	8	0	7	3	3
6/6	0	0	12	0	7	4	4
6/7		0	12	0	10	6	6
6/8		0	12	0	17	7	9
6/9		0	12	0	20	8	11
EOS		327	1,442	6,427	8,212	4,639	5,832

Chum Salmon Table A2. Cumulative CPUE from the ATF.

Date	2022	2021	2020	2019	2018
6/3	0	0	0	0	0
6/4	0	0	0	0	0
6/5	0	0	0	0	8
6/6	0	0	0	0	8
6/7		0	0	0	8
6/8		0	0	0	8
6/9		0	0	0	8
EOS		267	2,611	1,051	10,277

Chum Salmon Table A3. Percent of run complete according to various historical run timing scenarios from the BTF.

Timing	Midpoint	6/6 Cumulative %
Earliest	6/23	1%
Early 10%	7/1	<1%
Early 25%	7/3	<1%
Median	7/6	<1%
Late 25%	7/8	<1%
Late 10%	7/11	<1%
Latest	7/15	<1%

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