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: **06/15/2022** **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: **QUORUM MET? Yes / No**

Upriver Elder:
Downriver Elder:
Commercial Fisher:
Lower River Subsistence:
Middle River Subsistence:
Upper River Subsistence:
Headwaters Subsistence:
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=commercialbyareakuskokwim.kswg**

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

ORUTSARARMIUT NATIVE COUNCIL
ONC Fisheries 545-6001

Orutsararmiut Native Council (ONC) Inseason Harvest Monitoring Weekly Report

June 15, 2022

For the June 8, 2022 set net opener, ONC fisheries crew surveyed 5 fish camps who were actively fishing and gathered information from 8 fishing trips at the Bethel boat harbor. A combined total of 13 surveys were conducted on unique fishing trips.

For the June 12, 2022 opener, ONC fisheries crew visited 20 Bethel area fish camps, 16 of which were actively fishing and surveyed. ONC fisheries crew also gathered information from 124 unique fishing trips at the Bethel boat harbor.

The comments shared with our crew during the June 8th and June 12th openers include the following:

- 9 fishers said that they wanted no more controlled openings or at least have openers that are longer and occur more often. A fisher added to that by saying that these openers aren't real fishing.
- 7 people commented on how crowded the river was and 5 of those fishers said there was a lot of corking.
- 4 people commented on the timing of the opener with 2 saying they wish the opener was on a warmer day and one saying that the openers should be on Saturday rather than Sunday.
- 3 fishers said it was slow fishing.
- 2 people said that management doesn't listen to their needs.
- 1 person said if they had a rolling opener that the river would be less crowded.
- 1 person urged that authorities need to keep intoxicated off the river, and that they had someone drive over their net with a jet unit.
- 1 fisher appreciated the closers and that it allowed for more fish to head up and spawn.
- 1 fisher had concerns about the new placement of boundary markers on the Johnson - claiming that it was moved further upriver and in a place where set netters who used to set there for a long time are no longer able to set their net there because it is considered illegal. They had a question of why did the boundary marker move further upriver?
- 1 fisher explained that they would like to see a box around the choke point near Napaskiak, saying that all the fish that swim up the river have to pass this point and that there is a "wall" of nets that fish can't pass.

Table 1. Average fish harvest, net length and mesh size range reported by surveyed Bethel area fish camps and Bethel boat harbor from the June 8, 2022 fishing 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 Boat Harbor	8	1.4	0	0	0.25	45-60 (ft.)	4-6”
Bethel Fish Camps	5	2.4	0	0	0.5	25-60 (ft.)	4-6”

Table 2. Average fish harvest, net length and mesh size range reported by surveyed Bethel area fish camps and Bethel boat harbor from the June 12, 2022 fishing 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 Boat Harbor	124*	5.8	<1	<1	<1	30-300 (ft.)	4-6”
Bethel Fish Camps	16	12.5	0	~1	<1	20-230 (ft.)	5.5-6”

*4 of the surveys collected at Bethel Boat Harbor were not used to produce harvest estimates because the fishing was done outside of the area used in the harvest estimates program (stratum O).

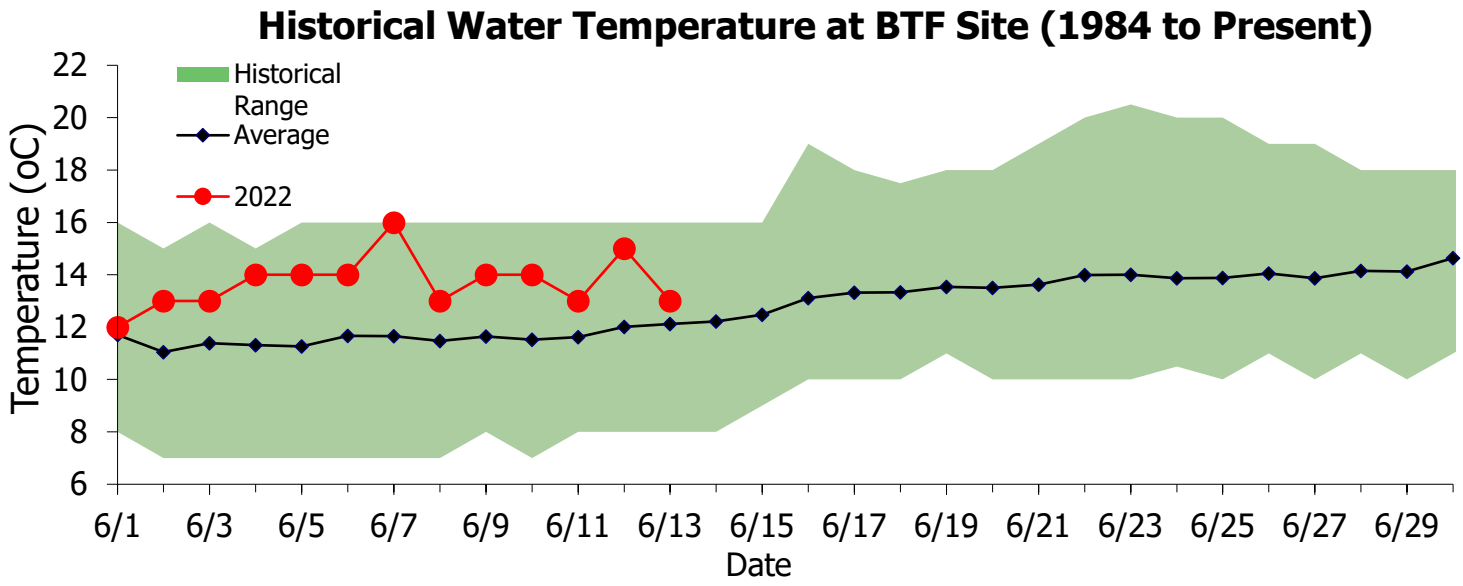
Table 3. Average fish harvest, net length and mesh size range reported by surveyed Bethel area fish camps and Bethel boat harbor from the June 12 fishing opportunity in 2021, 2020, 2019, and 2018.

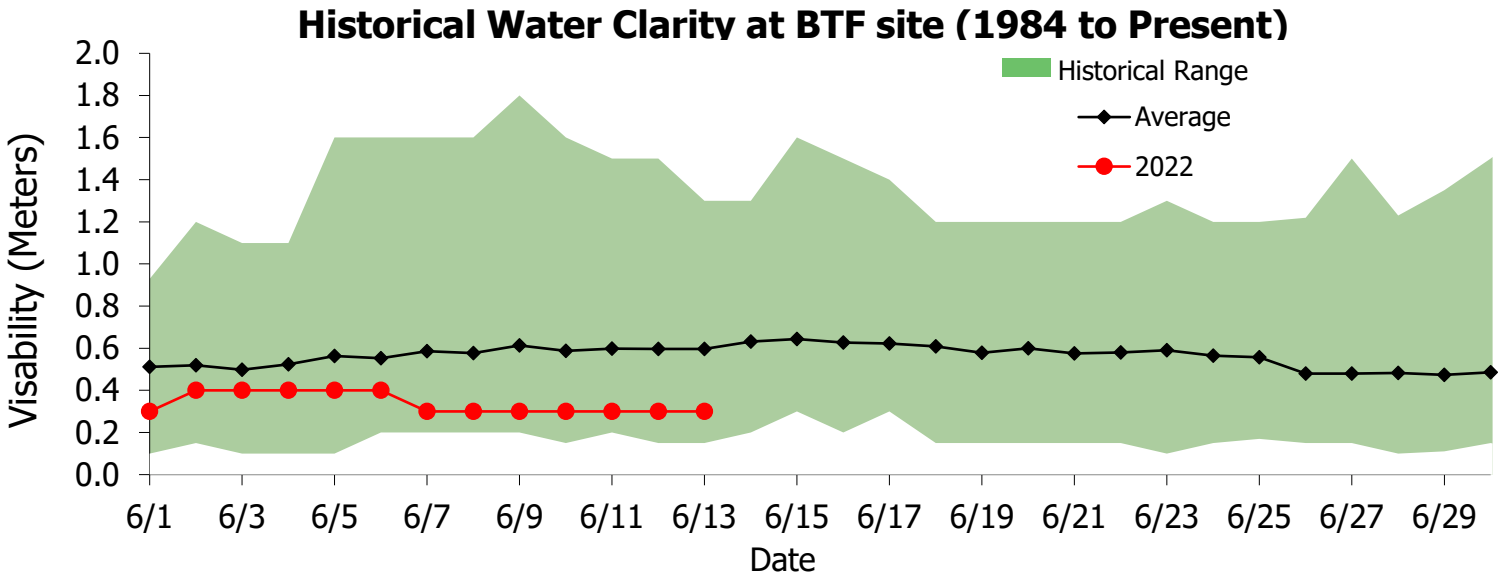
Year	Fishing Date	Data Source	Number of Surveys Conducted	Average Chinook Salmon Harvest	Average Chum Salmon Harvest	Average Sockeye Salmon Harvest	Average other harvest	Net Length Range (ft.)	Mesh Size Range (in.)
2021	6/12	Bethel Boat Harbor	128	5.9	0.1	0.5	<1	45 - 300 (ft.)	4 - 6”
		Bethel Fish Camps	29	7.8	0.1	0.4	<1	60 - 300 (ft.)	5.5 - 6”
2020	6/12	Boat Harbor	119	3.5	<1	<1	<1	45-300 (ft.)	4-6”
		Bethel Fish Camps	21	8.1	<1	<1	<1	40-300 (ft.)	5-6”
2019	6/12	Boat Harbor	89	6	<1	1	<1	Not available	Not available
		Bethel Fish Camps	17	10	1	1	1	Not available	Not available
2018	6/12	Boat Harbor	Not available	Not available	Not available	Not available	Not available	Not available	Not available
		Bethel Fish Camps	17	6	2	<1	1	Not available	5.375” - 6”

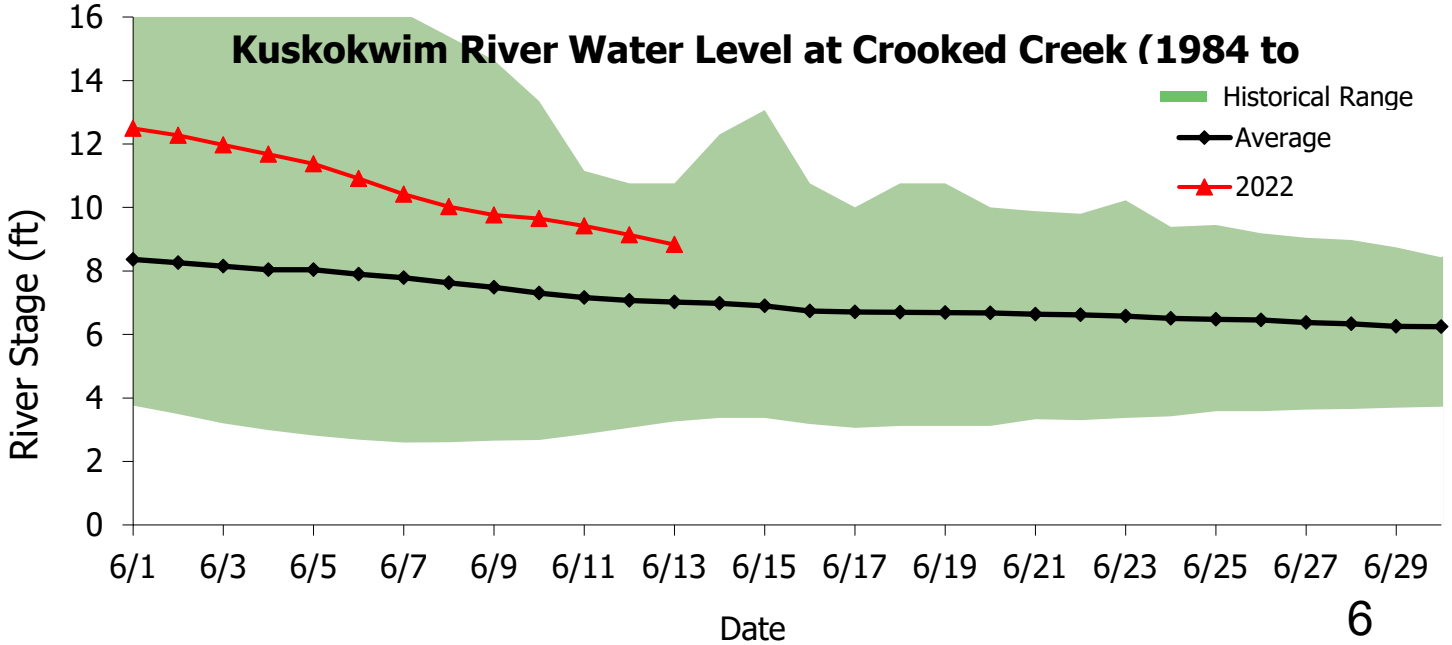
Fish Distribution

From June 6th through June 13th, ONC delivered 24 Chinook salmon, 1 chum salmon, and 2 whitefish to Bethel area Elders. These fish were caught by the ADF&G Bethel Test Fishery.

To access BTF and weir data online, please visit:
https://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareakuskokwim.salmon#fishcounts







Kuskokwim River Salmon Assessment Update
6/13/2022

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

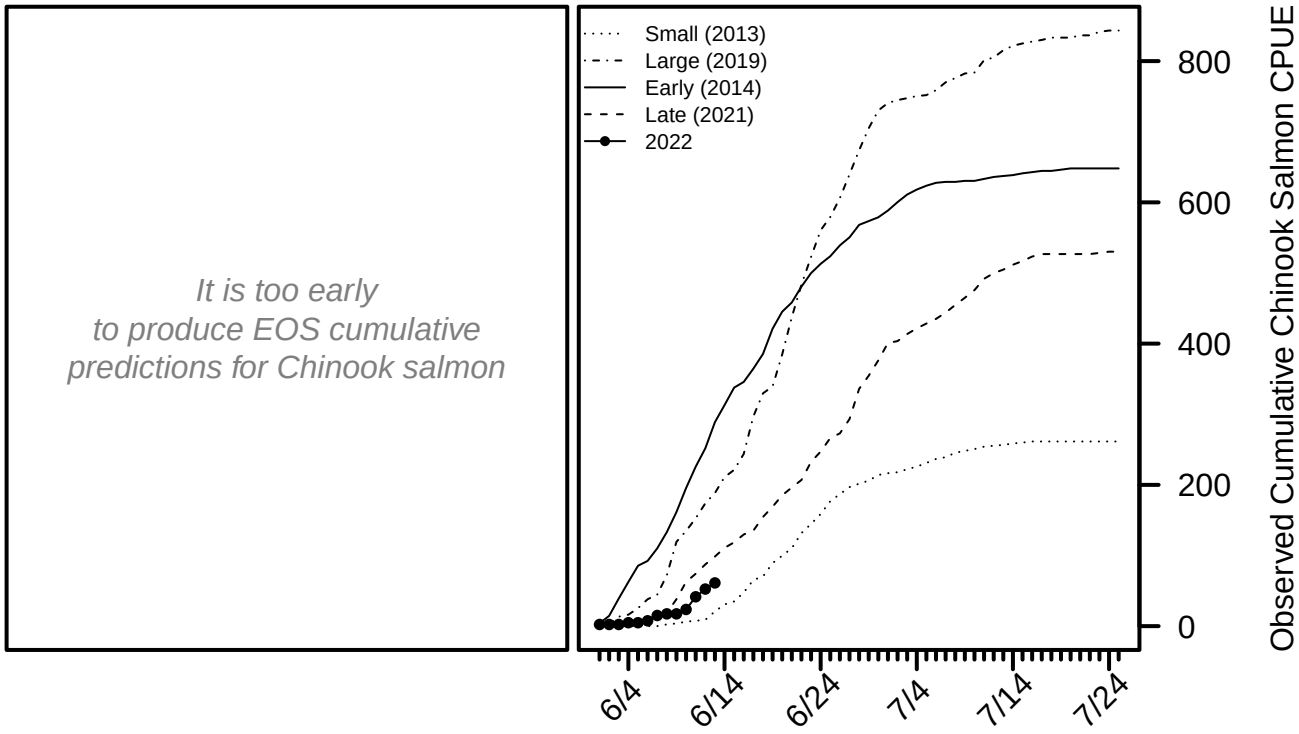
For the most up-to-date information regarding fishing opportunities please visit:

- **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 (6/13)

- The BTF daily CPUE was **9**.
- The BTF cumulative CPUE is now **61**.
- **36%** years since 2008 fell below this cumulative CPUE on this date.
- **14%** of the run is complete based on historical average run timing.
- **9% - 22%** of the run is complete based the central 50% of all historical run timing scenarios.
- **15% - 21%** 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 **45%** 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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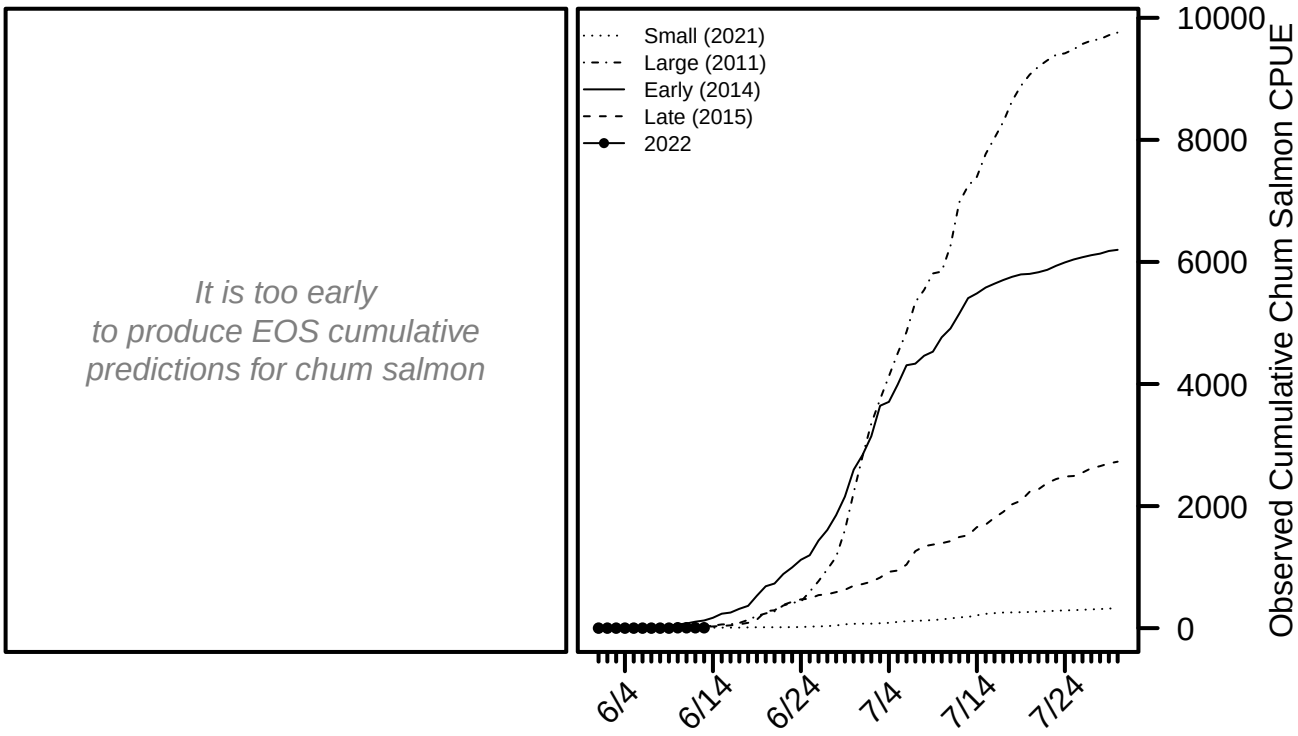
Chum Salmon BTF Summary (6/13)

- The BTF daily CPUE was **0**.
- The BTF cumulative CPUE is now **6**.
- **14%** years since 2008 fell below this cumulative CPUE on this date.
- **1%** of the run is complete based on historical average run timing.
- **<1% - 2%** of the run is complete based the central 50% of all historical run timing scenarios.
- **1% - 5%** of the run is expected to pass Bethel in the next 5 days.
- Over the last 3 days, chum salmon made up **0%** of the BTF catches, compared to **33%** on average.

Chum 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 ***chum salmon appendix*** *at the end of this document.*

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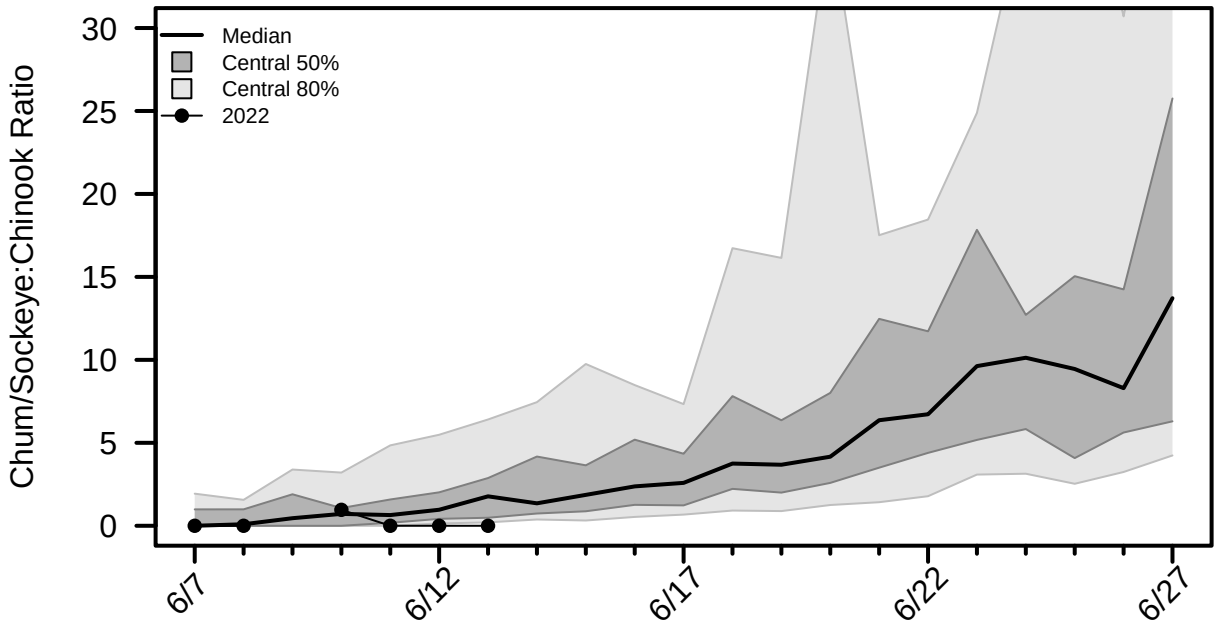
Chum/Sockeye:Chinook Salmon Ratio

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
6/10	0.96	0.72	0	3.21	–
6/11	0	0.65	0	4.85	–
6/12	0	0.97	0.14	5.49	–
6/13	**0**	**1.77**	**0.21**	**6.41**	–
6/14		1.35	0.38	7.45	
6/15		1.86	0.32	9.75	
6/16		2.37	0.53	8.48	

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
6/10	71%	34%	11%	3%	3%
6/11	76%	42%	16%	3%	3%
6/12	79%	42%	24%	3%	3%
6/13	**84%**	**47%**	**32%**	**5%**	**3%**
6/14	87%	61%	39%	8%	3%
6/15	92%	68%	45%	16%	3%
6/16	92%	71%	47%	18%	5%

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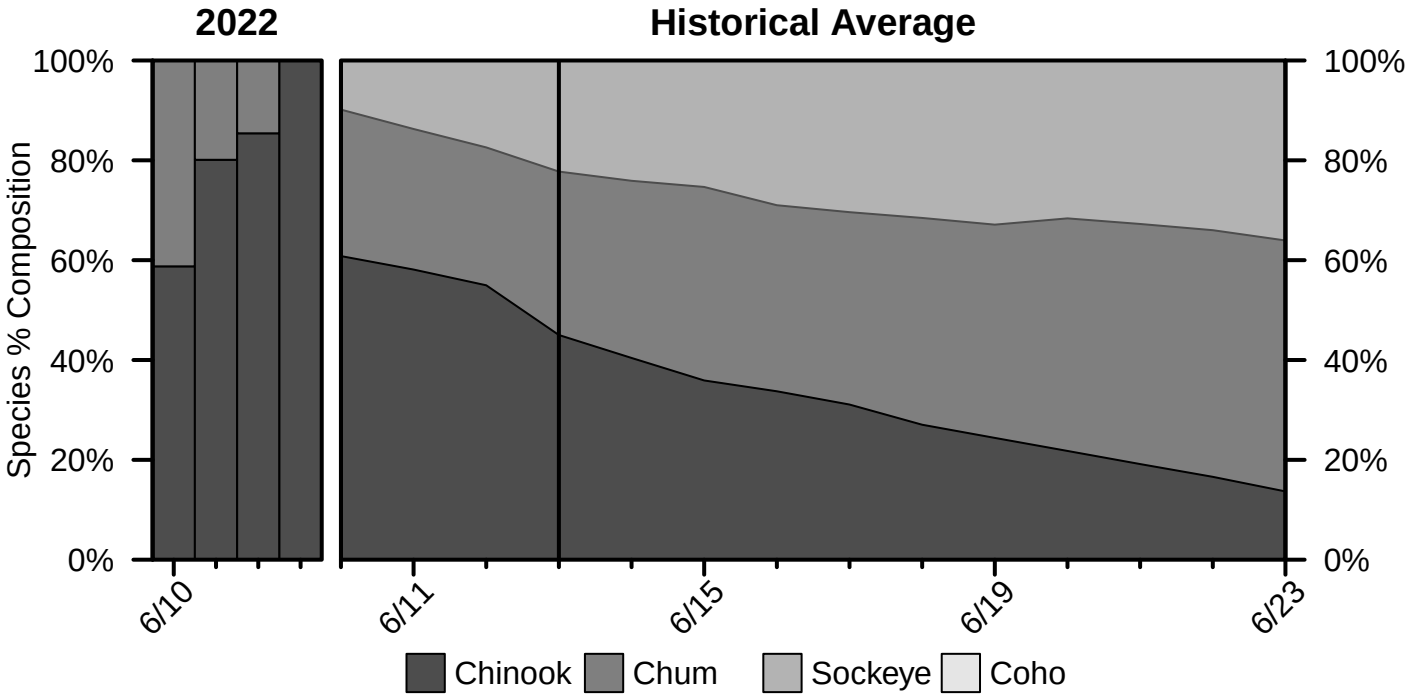
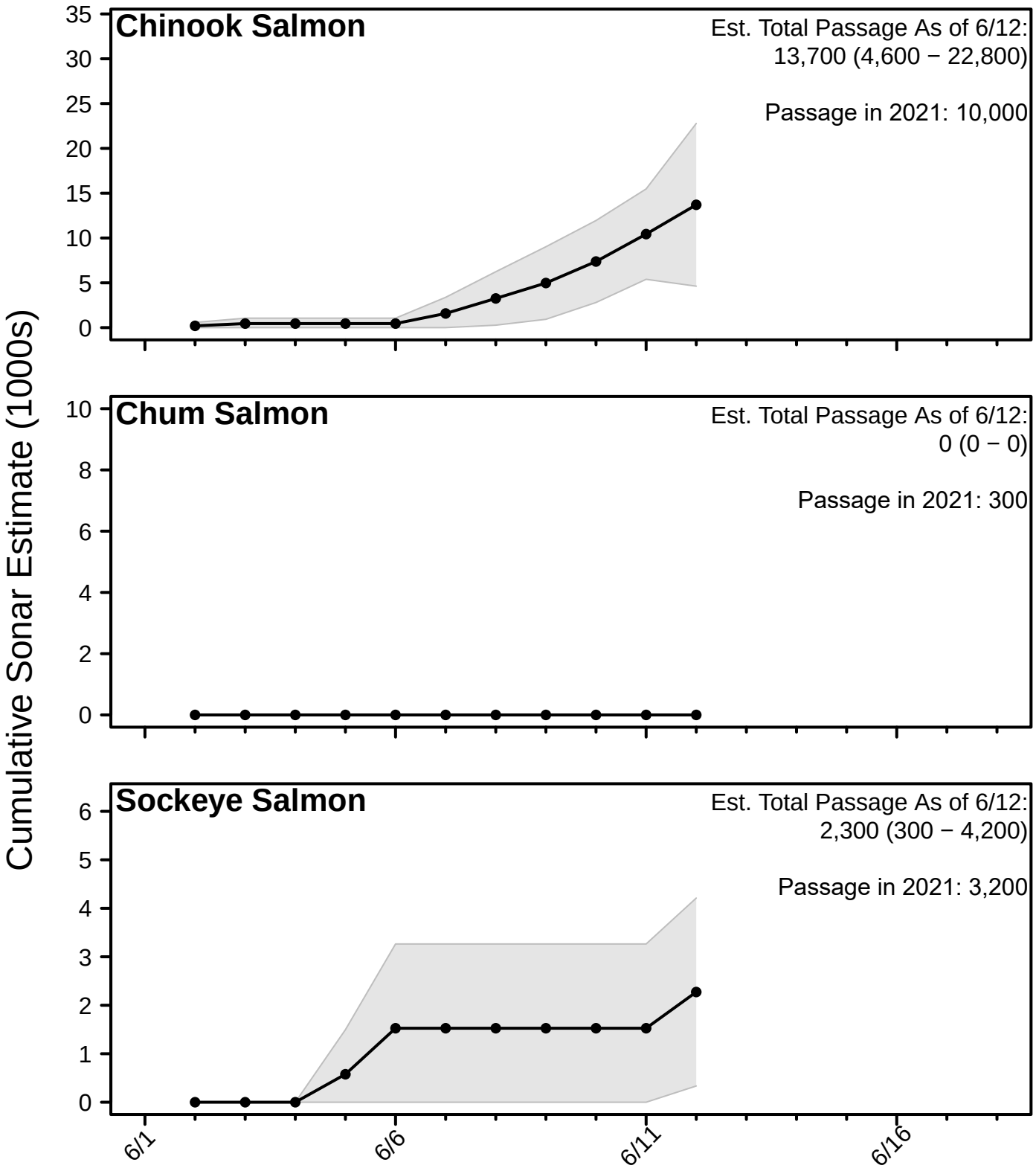
Percent Composition by Salmon Species

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 Aniak.

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
6/8	120	230	0.24	0.19
6/12	4,700	4,930	0.14	0.13

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
6/8	0	0	0	NA
6/12	60	60	0.42	0.42

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
1-Jun	0	0	0	0
4-Jun	0	0	0	NA
8-Jun	20	20	0.54	0.54
12-Jun	360	380	0.18	0.17

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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.
6/10	24	63	57	135	38	61	63
6/11	42	74	64	153	49	72	74
6/12	52	87	72	174	67	84	84
6/13	**61**	**98**	**73**	**188**	**91**	**95**	**96**
6/14		111	83	211	112	109	109
6/15		119	93	221	145	123	127
6/16		130	104	244	161	136	147
EOS		532	487	848	667	582	566

Chinook Salmon Table A2. Cumulative CPUE from the ATF.

Date	2022	2021	2020	2019	2018
6/10	0	0	0	33	23
6/11	0	0	0	114	31
6/12	0	16	0	218	64
6/13	**0**	**16**	**0**	**328**	**80**
6/14		42	7	403	104
6/15		79	41	569	104
6/16		99	68	595	119
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	6/13 Cumulative %
Earliest	6/14	42%
Early 10%	6/18	31%
Early 25%	6/21	22%
Median	6/22	15%
Late 25%	6/25	9%
Late 10%	6/26	5%
Latest	7/3	2%

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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.
6/10	6	0	12	11	22	14	16
6/11	6	0	12	15	37	18	19
6/12	6	0	12	15	49	23	24
6/13	**6**	**3**	**12**	**16**	**74**	**33**	**32**
6/14		8	12	19	106	42	41
6/15		8	17	19	188	65	62
6/16		8	17	19	205	76	77
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
6/10	0	0	0	0	8
6/11	0	0	0	0	8
6/12	0	0	0	0	8
6/13	**0**	**0**	**0**	**5**	**8**
6/14		0	13	5	8
6/15		0	13	5	8
6/16		0	13	5	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	6/13 Cumulative %
Earliest	6/23	5%
Early 10%	7/1	3%
Early 25%	7/3	2%
Median	7/6	1%
Late 25%	7/8	<1%
Late 10%	7/11	<1%
Latest	7/15	<1%

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Alaska Peninsula Inseason Commercial Harvest Estimates

https://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareaakpeninsula.salmonharvestsummary

ESTIMATED SALMON CATCH TO DATE
BY GEOGRAPHIC AREA / FISHERY, WITHIN THE ALASKA PENINSULA MANAGEMENT AREA

Monday, June 13, 2022

South Peninsula	Chinook	Sockeye	Coho	Pink	Chum
Post June Cold Bay	0	0	0	0	0
Post June Thin Point Section	0	0	0	0	0
Post June Morzhovoi Bay to South Unimak	0	0	0	0	0
Post June Shumagin Islands	0	0	0	0	0
Southeastern District Mainland	0	0	0	0	0
Northwest Stepovak Section (7/1-7/25)	0	0	0	0	0
Dolgoi Island Area1*	4	4,894	0	35	30
Dolgoi Island Area2	0	0	0	0	0
June Shumagin Islands	394	156,818	0	22,487	17,692
June South Unimak*	460	565,903	152	144,765	32,947
	858	**727,615**	**152**	**167,287**	**50,669**