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: **07/5/2023** **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
- CBM Inseason Harvest Report
- 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:
- Sport Fish Report:
- Intercept Fishery Report:
- Discussion of ADF&G Management considerations and discussion of possible alternatives (recommendations from the Working Group):
- Motion for Discussion and Action:

OLD BUSINESS: • **Recruitment for vacant positions.**

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.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

Fisheries Program Updates
This past week, KRITFC announced a 24-hour set net opener from Friday, 9am on June 30th until 9am on Saturday, July 1st. On Friday, the boat harbor was quieter than the morning of last week's drift net opener. From speaking with people across Friday morning and early-afternoon, people had only set their nets, but not many were returning with catches yet. By Friday late-afternoon and evening, the harbor was busy, as families headed to pull nets and to prepare their catches caught throughout the day at their fish camps. Saturday morning was also busy at the boat harbor, yet most families we spoke to on this day were headed out to enjoy the nice weather, with very few returning with new catches to report.

As the new fisheries biologist here at ONC, I feel like I am starting to get into the swing with all things related to ONC Fisheries's programs, but I still have so much to learn from you all, to learn about Yup'ik culture, and to understand about the complex history and politics at play along the Kuskokwim. If you have stories to share, concerns you'd like to discuss, or if you even need help with processing fish late in the evenings this week, I'd love to help! Again, as mentioned last week, if you see me around, please do not hesitate to introduce yourself and say hello. I look forward to meeting you and your families, and I truly want to hear from YOU!

Technical Issues
ONC has upgraded our network and internet services to another provider. We are up and running at full capacity as of the end of last week.

Harvest Goals
During the surveys of the June 23 opener, we began asking families at the Bethel Boat Harbor and at fish camps if they had met their harvest goals. For this week's opener, we have more consistently asked questions regarding meeting people's subsistence needs and goals as related to Section C of our fish camp surveys. This past opener, we also asked survey participants at boat harbor surveys if they have reached their subsistence goals and needs as well. As of July 1st, 33% (n=15) of boat harbor survey participants had met their subsistence goals across species, 38% (n=17) had not, and 29% (n=13) did not answer the question with yes, no, or what fish species they wanted/needed more of. Instead individuals' responses varied from "we are thankful with whatever we get," to "it's up to my parents."

As of this same date, 32% (n=8) of fish camp survey participants that were asked questions about goals have met their subsistence goals for kings, 22% (n=6) have met their subsistence goals for chums, and 30% have met their subsistence goals for reds.

63% (n=17) have *not* met their subsistence goals for kings, 70% (n=19) of fish camp survey participants have *not* met their subsistence goals for chums, and 56% (n=15) of fish camp survey participants have *not* met their subsistence goals for reds.

One important consideration with this data from survey responses related to subsistence goals/needs is that those that have met their goals will likely not be out fishing unless they are providing for others at this point.

Additionally, 3 other fish camp survey participants could not answer the survey questions related to subsistence goals/needs. We received two comments from fish camp survey participants that reflect misalignment between Western managers' harvest "goals" and subsistence practices.

One family said, "I don't want to hear the words 'goals met.' I've been a commercial fisherman for 60 years, and we're still here, that's why we know the truth…We're not talking goals, once or twice, that's not subsistence…Nobody met nobody's goals"

Another family said, "I've been fishing by the island since 1963…[there is] no such thing as a goal, just as much as you need– enough to share."

When asked about their goals, one family said. "[We're] having to watch the weather."

We will continue to ask these questions associated with the next opener this week, July 4th-July 6th. Once families have declared reaching their goals or during our final surveys, we will be following up with questions that allow for open-ended responses about why harvest goals were not met and any final comments/concerns regarding salmon conservation.

Survey Efforts

For the June 30, 2023- July 1, 2023 opener, we completed 82 surveys. In total, 77 fish camps have been surveyed this year, and 10 fish camps were visited on Saturday, July 1st. Of the families that were visited over the past opener, all fish camps were actively fishing and processing their fresh catches. Due to the shallow waters and staff capacity to physically reach fishamps, all remaining fish camps (n=67) were called to complete the survey over-the-phone. 11 participants completed the survey over-the-phone.

Table 1. Broken down average percentage and overall total salmon harvest reports from the Bethel Area Fish Camps & Boat Harbor Surveys on June 30, 2023 and July 1, 2023 for the 24-hour set net opener.

Surveys broken down by type	Number of Surveys Conducted	Average Chinook Harvest	Average Chum Harvest	Average Sockeye Harvest	Average Other Harvest
Fish Camps	21	2%	6%	93%	0%
Boat Harbor	61	6%	16%	77%	1%
Total Overall Harvest Numbers Fish Camps & Boat Harbor	**Total Surveys Conducted**	**Total Chinook Harvest**	**Total Chum Harvest**	**Total Sockeye Harvest**	**Total Other Harvest**
	82	137	371	2538	16

Fish Camp Comments:
While fish camps were bustling with activity during our fish camp surveys, two survey participants over-the-phone stated that their families still have not fished this season.

One participant did not fish for the June 30, 2023- July 1, 2023 opener specifically, as he had never set net before and didn't know where to set. This individual also stated that he doesn't have the right kind of net. He said, "I would have liked a drift opener, not set net because the majority of subsistence fishers usually drift. Not many set." Though, he followed this up by stating while he doesn't see as many fishers when they're set netting, "I'm still happy people got to fish." This individual also reported that he had seen fish jumping in the water while out on the boat the day before.

One family asked when the next drift would be.

When asked about the number of reds caught during the opener, one boat harbor survey participant responded "too many."

Two fishers were very vocal in support of closing down Area M fishery to trawlers or, in support of the Senate Bill.

One individual said, "Why can they test fish, but we can't?...I just had the privilege to bring five reds to my elder sister. She said she had enough, and I said, 'oh give it then to your daughter,' and she said, 'no I'll keep it.'... That's how special gifts are. A gift is very special to a Native Elder... I hope some day people will wake up to what's going on here on earth instead of trying to do things in space. What's so important about putting people on the red planet? But anyways, I'm carrying on... If NOAA can take all these pictures, take all these pictures of space, they can take pictures of people throwing out fish in Area M… We're not stupid people. We know all about these things. We've shut our mouths for so long until they call it a *disaster*…Who are these people test fishing? I want to see people like me doing this to ensure accuracy–not someone from LA. Put someone here that knows what they're doing, not someone just here for the money…Let's do test fishing in Area M and see how much they pull out- 1 boat in 1 month..How much they pay their crews versus how much I put on my table… I'm worried nothing will happen until it's gone... It's politics. It's where the money is."

Boat Harbor Comments:
This past opener, we observed far fewer fishers at the Bethel Boat Harbor than the previous openers on June 17th and on June 23rd. There wasn't as much traffic going through the boat harbor, and the parking lots weren't jam packed. Many technicians reported feedback that people were getting significantly more reds than chums and king salmon. We also observed that more fishers were using dip nets as a fishing method to catch fish than past openers (n=6).

One participant told a story of a friend who thought they had lost their set net, only to find out that it had sunk due to the weight of over 100 fish, which they were eventually able to retrieve.

Table 2. Average subsistence user data by surveyed individuals at the Bethel harbor and fish camps from the June 30, 2023- July, 1, 2023 24-hour set net fishing opener.

Total Overall Surveys	Type of Net	Harvest Stratum	Total Surveys by Stratum	Average Start Time	Average End Time	Average Soak Time (min)	Average Mesh Size (in)	Average Net Length (ft)
6	**Dip**	**Stratum C**	6	10:45	12:45	113	5	26.8
74	**Set**	**Stratum A**	2	9:45	15:00	315	5.75	150
		Stratum B	6	10:03	13:12	167	5.81	63.33
		Stratum C	65	11:13	14:29	355	5.5	73.22
		Stratum O	1	20:00	14:00	1200	6	96
1	**Rod and Reel**	**Stratum D2**	1	4:00	19:25	2365	n/a	n/a

Fish Distribution

From June 28th through June 30th, ONC Fisheries crew delivered 22 king salmon, 22 chum, and 21 red salmon to Bethel area elders, widowed, and disabled. We also delivered 10 fish to one family in Bethel that had lost their home in a house-fire. We tried locating a second family that had lost their home to a house-fire this past week as well and were unsuccessful.

Additionally, this past week, our team delivered fish to the community of Kwethluk, outside of Bethel. This decision was made as we had exhausted our list of families to provide to. We also had a number of people deny fish as a result of already having enough fish or what appeared to be being selective in the species and/or quality they wanted.

We received *at least* 5 comments regarding this decision from community members. During fish camp surveys one individual said, “ONC is giving away fish… Two elders called me saying they only got 2..[you] should deliver to them… It belongs to our people…That's starving the people- our own people… They've got their own fish...just so we can look good?...they should have asked the Board, the administration.”

Another fish camp survey participant said that they had heard a rumor that ONC is giving fish to another village. They stated, "[I] thought ONC was Bethel… that isn't right…[I] just got back from Anchorage, [and I] still need fish."

As of July 1st, ONC Fisheries is only delivering king salmon. Other fish caught by the Bethel Test Fishery are available at the community fish bin. When possible, ONC Fisheries has been making these announcements on our Facebook page. Moving forward, we are hoping to receive community input and suggestions for how to make the process of fish distribution more equitable and to ensure the message is reaching those not on Facebook and to those that signed up to receive fish from past outreach efforts.

Final ONC Report & Survey Effort

ONC will provide its last KRSMWG report after we stop receiving kings from BTF, usually around the third week of July based on past information from the Bethel Test Fishery. Our technicians will be shifting gears and their efforts to assist with ONC's Science & Culture Camp beginning on July 10th, though we anticipate still having survey coverage during any continued openers and to collect ASL data on any kings received from BTF. Quyana!

Kuskokwim River In-season Harvest and Effort Estimates

6/30-7/1 2023 Subsistence Harvest Opportunity (Set Nets Only)

Opportunity Time Period: 900 AM – 9:00 AM (24 Hours)

Data Sources

TABLE 1. The number and percent of fisher interviews conducted by location and organization.

Data Source	Interviews	Percent
Bethel Boat Harbor (ONC)	54	46%
Other Villages (KRITFC)	31	27%
Bethel Area Fish Camps (ONC)	31	27%
Total	**116**	**100%**

TABLE 2. The time each flight was conducted and fishers counted each flight.

Time Information			Nets Counted	
Start Time	**End Time**	**Hours**	**Drift**	**Set**
5::05 PM	6:39 PM	1.57	0	90

Effort Estimates

- An estimated **116** set net trips occurred.

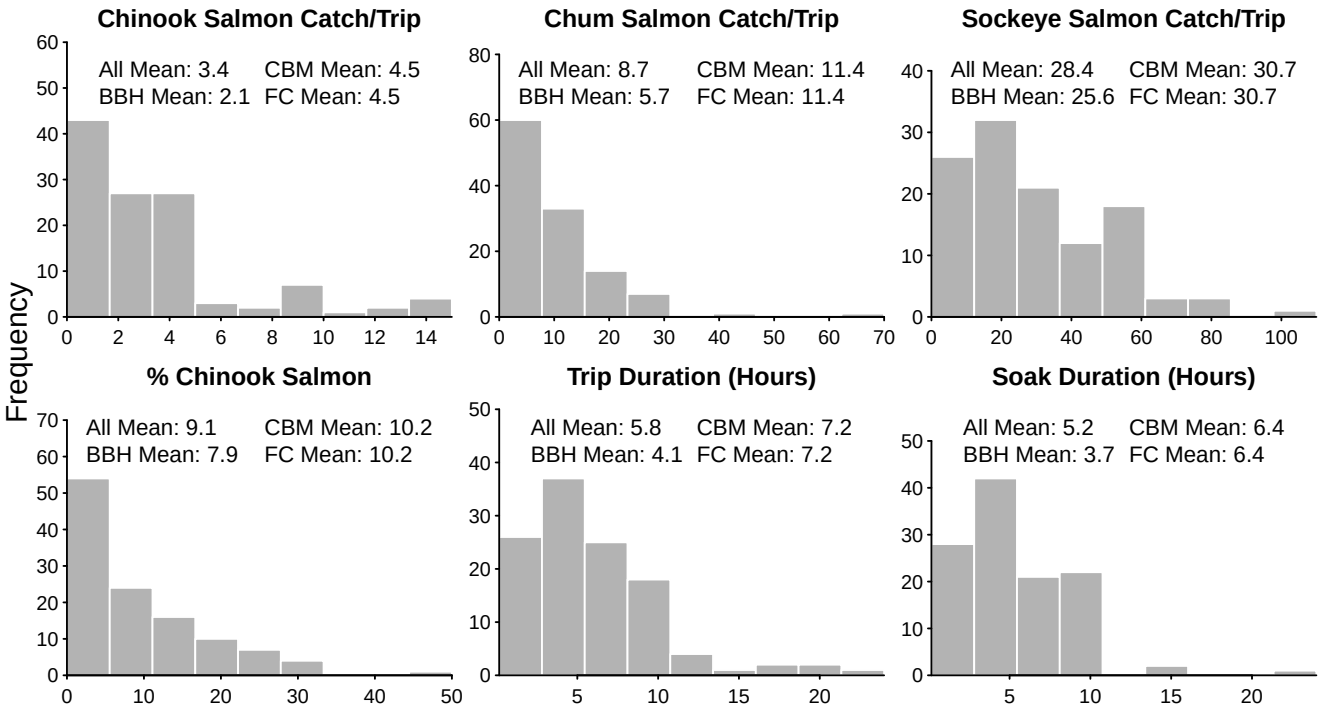
Harvest Estimates

- An estimated total of **8,345 (5,981 – 12,242)** salmon were harvested.
  - An estimated total of **593 (453 – 746)** Chinook salmon were harvested.
  - An estimated total of **1,298 (966 – 1,689)** chum salmon were harvested.
  - An estimated total of **6,454 (4,219 – 10,096)** sockeye salmon were harvested.

TABLE 3. Summaries by river stratum (area) for set nets. Numbers in parentheses are 95% confidence intervals.

			Estimated Harvest			
Stratum	**Interviews**	**Effort Est.**	**Chinook**	**Chum**	**Sockeye**	**Total**
Tuntutuliak ⟷ Johnson R.	2	10	51 (39 – 64)	112 (83 – 146)	556 (364 – 870)	**719 (516 – 1,055)**
Johnson R. ⟷ Napaskiak	58	9	46 (35 – 58)	101 (75 – 131)	501 (327 – 783)	**647 (464 – 950)**
Napaskiak ⟷ Akiachak	56	70	358 (274 – 450)	783 (583 – 1,019)	3,895 (2,546 – 6,093)	**5,036 (3,610 – 7,387)**
Akiachak ⟷ Akiak	0	18	92 (70 – 116)	201 (150 – 262)	1,002 (655 – 1,567)	**1,295 (928 – 1,899)**
Akiak ⟷ Bogus Cr.	0	9	46 (35 – 58)	101 (75 – 131)	501 (327 – 783)	**647 (464 – 950)**
Total	**116**	**116**	**593 (453 – 746)**	**1,298 (966 – 1,689)**	**6,454 (4,219 – 10,096)**	**8,345 (5,981 – 12,242)**

FIGURE 1. Distributions of relevant quantities from all completed trips using set nets. The mean quantity by primary data source is shown in the top right; BBH = Bethel Boat Harbor (ONC), CBM = Other Villages (KRITFC), FC = Bethel Area Fish Camps (ONC).



Appendix A: Detailed Interview Summaries

Column Meanings

- **Area**: the area of the river the trip occurred in
- **N**: the number of interviews with usable information in each area
- **Min**: the minimum value among trips in each area
- **25%**: the value that 25% of trips fell below in each area
- **Mean**: the average value across trips in each area
- **75%**: the value that 75% of trips fell below in each area
- **Max**: the maximum value among trips in each area

Information is for set net trips only.

TABLE A1. Summary of set net catch per trip of Chinook salmon by fishing area.

Area	N	Min	25%	Mean	75%	Max
Tuntutuliak ⟷ Johnson R.	2	0	0	0	1	1
Johnson R. ⟷ Napaskiak	58	0	2	4	5	15
Napaskiak ⟷ Akiachak	56	0	0	2	4	15
All	**116**	**0**	**0**	**3**	**5**	**15**

TABLE A2. Summary of set net catch rate of Chinook salmon by fishing area (fish per 150 feet of net per hour).

Area	N	Min	25%	Mean	75%	Max
Tuntutuliak ⟷ Johnson R.	2	0	0	0.1	0.1	0.2
Johnson R. ⟷ Napaskiak	48	0	0.9	2.8	3.1	15
Napaskiak ⟷ Akiachak	55	0	0	1.9	2.9	12
All	**105**	**0**	**0**	**2.3**	**3**	**15**

TABLE A3. Summary of set net catch per trip of chum salmon by fishing area.

Area	N	Min	25%	Mean	75%	Max
Tuntutuliak ⟷ Johnson R.	2	9	12	14	17	20
Johnson R. ⟷ Napaskiak	58	0	5	11	16	31
Napaskiak ⟷ Akiachak	56	0	0	6	5	70
All	**116**	**0**	**1**	**9**	**12**	**70**

TABLE A4. Summary of set net catch rate of chum salmon by fishing area (fish per 150 feet of net per hour).

Area	N	Min	25%	Mean	75%	Max
Tuntutuliak ⟷ Johnson R.	2	1.6	2.2	2.8	3.4	4
Johnson R. ⟷ Napaskiak	48	0	2.1	5.5	7.6	30
Napaskiak ⟷ Akiachak	55	0	0	4.7	5.4	45
All	**105**	**0**	**0**	**5**	**7.3**	**45**

TABLE A5. Summary of set net catch per trip of sockeye salmon by fishing area.

Area	N	Min	25%	Mean	75%	Max
Tuntutuliak ⟷ Johnson R.	2	2	4	6	7	9
Johnson R. ⟷ Napaskiak	58	1	15	29	47	65
Napaskiak ⟷ Akiachak	56	0	11	28	40	110
All	**116**	**0**	**14**	**28**	**43**	**110**

TABLE A6. Summary of set net catch rate of sockeye salmon by fishing area (fish per 150 feet of net per hour).

Area	N	Min	25%	Mean	75%	Max
Tuntutuliak ⟷ Johnson R.	2	0.4	0.7	1	1.3	1.6
Johnson R. ⟷ Napaskiak	48	2.9	8.2	15.4	17.6	50
Napaskiak ⟷ Akiachak	55	0	7.9	34.4	26.6	690
All	**105**	**0**	**7.9**	**25.1**	**20.8**	**690**

TABLE A7. Summary of set net percent composition of Chinook salmon by fishing area.

Area	N	Min	25%	Mean	75%	Max
Tuntutuliak ⟷ Johnson R.	2	0%	1%	2%	3%	4%
Johnson R. ⟷ Napaskiak	58	0%	5%	10%	17%	30%
Napaskiak ⟷ Akiachak	56	0%	0%	8%	13%	50%
All	**116**	**0%**	**0%**	**9%**	**16%**	**50%**

TABLE A8. Summary of set net trip duration by fishing area.

Area	N	Min	25%	Mean	75%	Max
Tuntutuliak ⟷ Johnson R.	2	5	5.1	5.2	5.4	5.5
Johnson R. ⟷ Napaskiak	58	0.5	4	6.2	8.8	11
Napaskiak ⟷ Akiachak	55	0.2	2	5.1	5.8	21
All	**115**	**0.2**	**3**	**5.6**	**8**	**21**

TABLE A9. Summary of set net active fishing hours by fishing area.

Area	N	Min	25%	Mean	75%	Max
Tuntutuliak ⟷ Johnson R.	2	5	5.1	5.2	5.4	5.5
Johnson R. ⟷ Napaskiak	58	0.2	3.8	5.8	8.5	10.5
Napaskiak ⟷ Akiachak	55	0.2	2	4.2	5.3	15
All	**115**	**0.2**	**2.8**	**5**	**7.5**	**15**

Appendix B: Non-salmon Harvest Information

- An estimated total of **32 (5 – 67)** nonsalmon were harvested.
  - An estimated total of **23 (0 – 56)** sheefish were harvested.
  - An estimated total of **8 (1 – 16)** all whitefishes were harvested.

TABLE B1. Summaries by river stratum (area) for set nets. Numbers in parentheses are 95% confidence intervals.

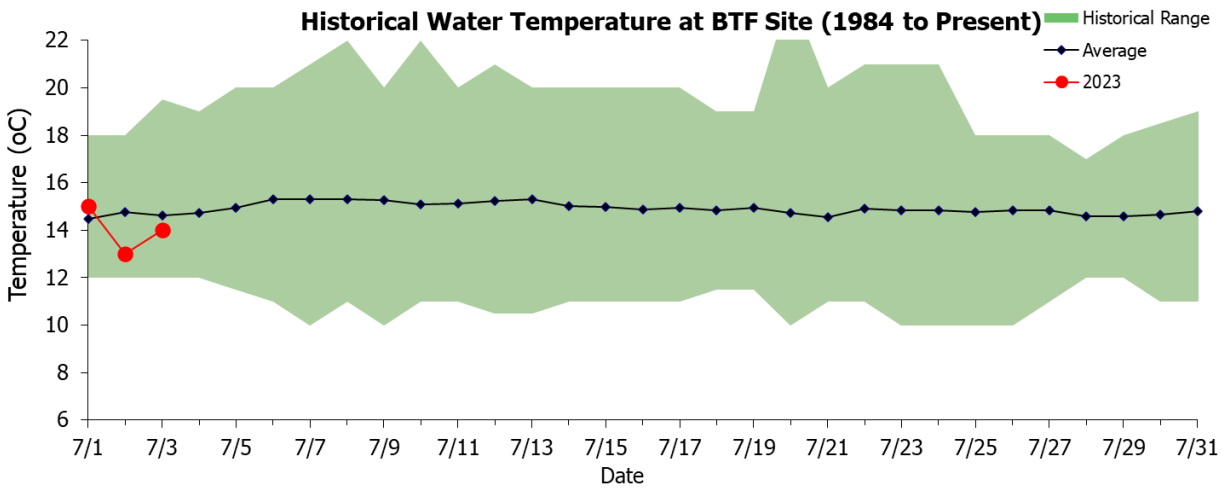
			Estimated Harvest		
Stratum	**Interviews**	**Effort Est.**	**Sheefish**	**Whitefish**	**Total**
Tuntutuliak ⟷ Johnson R.	2	10	2 (0 – 5)	1 (0 – 1)	**3 (0 – 6)**
Johnson R. ⟷ Napaskiak	58	9	2 (0 – 4)	1 (0 – 1)	**3 (0 – 5)**
Napaskiak ⟷ Akiachak	56	70	14 (0 – 34)	5 (1 – 10)	**19 (4 – 41)**
Akiachak ⟷ Akiak	0	18	4 (0 – 9)	1 (0 – 3)	**5 (1 – 11)**
Akiak ⟷ Bogus Cr.	0	9	2 (0 – 4)	1 (0 – 1)	**3 (0 – 5)**
Total	**116**	**116**	**23 (0 – 56)**	**8 (1 – 16)**	**32 (5 – 67)**

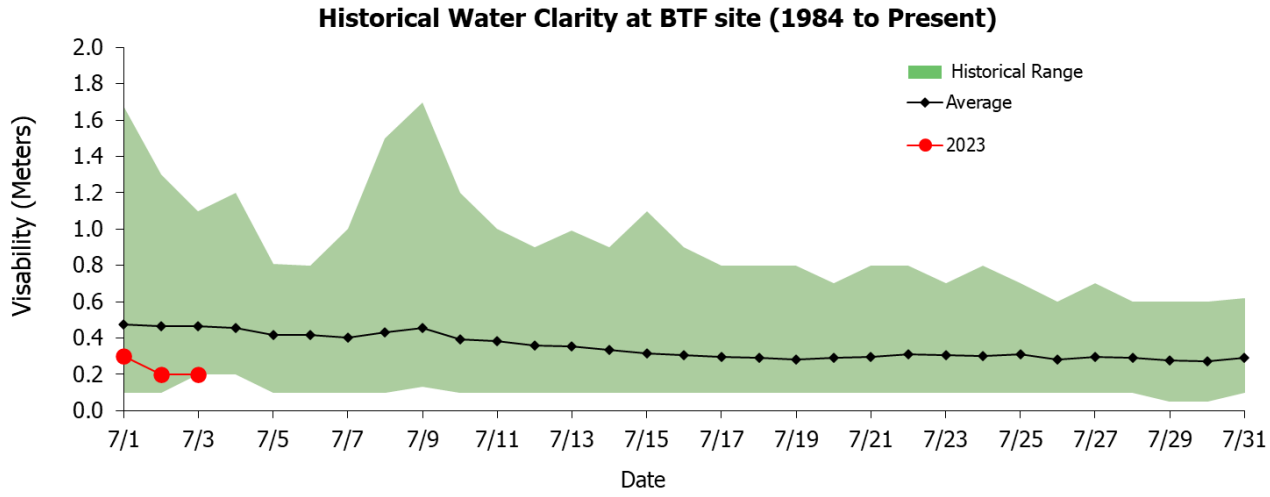
TABLE B2. Summary of set net catch per trip of sheefish by fishing area.

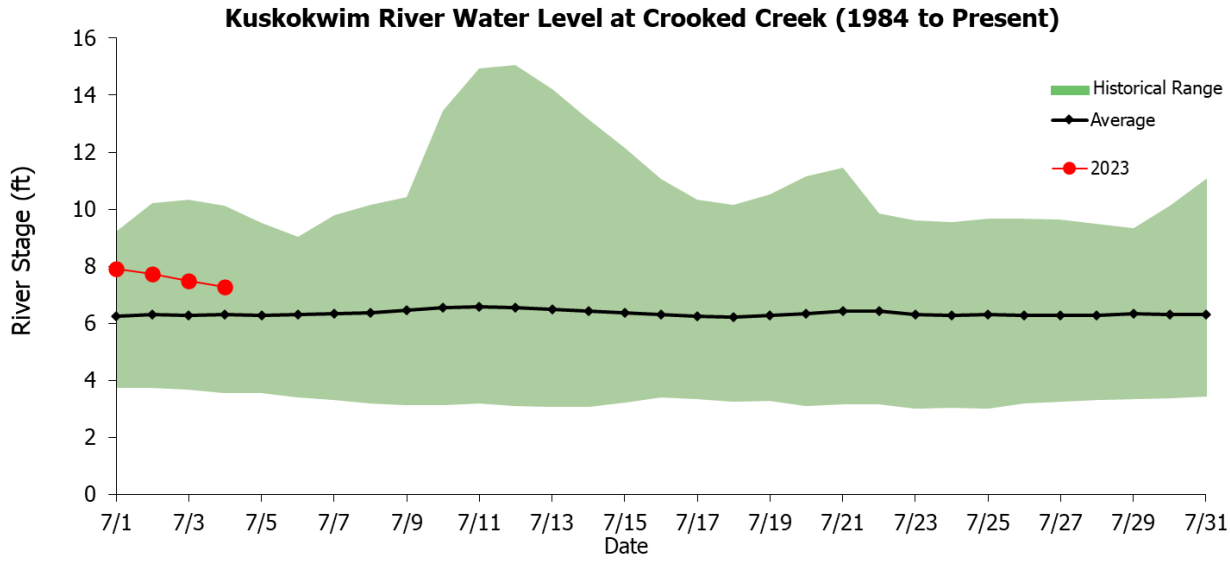
Area	**N**	**Min**	**25%**	**Mean**	**75%**	**Max**
Tuntutuliak ⟷ Johnson R.	2	0	0	0	0	0
Johnson R. ⟷ Napaskiak	58	0	0	0	0	9
Napaskiak ⟷ Akiachak	56	0	0	0	0	0
All	**116**	**0**	**0**	**0**	**0**	**9**

TABLE B3. Summary of set net catch per trip of all whitefishes by fishing area.

Area	**N**	**Min**	**25%**	**Mean**	**75%**	**Max**
Tuntutuliak ⟷ Johnson R.	2	0	0	0	0	0
Johnson R. ⟷ Napaskiak	58	0	0	0	0	1
Napaskiak ⟷ Akiachak	56	0	0	0	0	1
All	**116**	**0**	**0**	**0**	**0**	**1**


Historical Water Temperature at BTF Site (1984 to Present)
Historical Range
Average
2023
Temperature (oC)
22
20
18
16
14
12
10
8
6
7/1
7/3
7/5
7/7
7/9
7/11
7/13
7/15
7/17
7/19
7/21
7/23
7/25
7/27
7/29
7/31
Date


Historical Water Clarity at BTF site (1984 to Present)
Historical Range
Average
2023
Visability (Meters)
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
7/1
7/3
7/5
7/7
7/9
7/11
7/13
7/15
7/17
7/19
7/21
7/23
7/25
7/27
7/29
7/31
Date


Kuskokwim River Water Level at Crooked Creek (1984 to Present)
Historical Range
Average
2023
River Stage (ft)
16
14
12
10
8
6
4
2
0
7/1
7/3
7/5
7/7
7/9
7/11
7/13
7/15
7/17
7/19
7/21
7/23
7/25
7/27
7/29
7/31
Date

Kuskokwim River Salmon Assessment Update
7/3/2023

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.

Table of Contents:

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

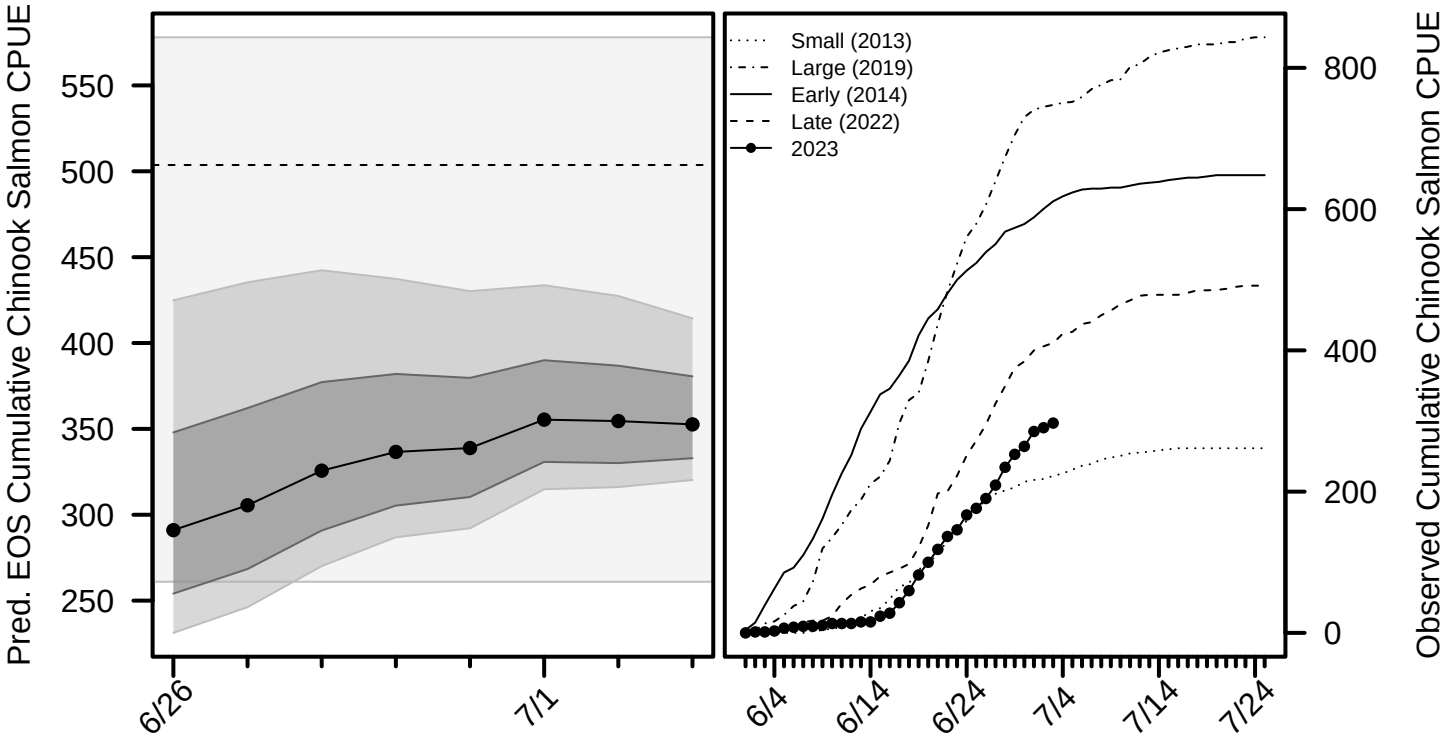
For the most up-to-date information regarding fishing opportunities please visit:

- **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 (7/3)

- The BTF daily CPUE was **7**.
- The BTF cumulative CPUE is now **297**.
- **14%** years since 2008 fell below this cumulative CPUE on this date.
- **84%** of the run is complete based on historical average run timing.
- **78% - 89%** of the run is complete based the central 50% of all historical run timing scenarios.
- **5% - 10%** of the run is expected to pass Bethel in the next 5 days.
- Over the last 3 days, Chinook salmon made up **15%** of the BTF catches, compared to **5%** on average.

Chinook Salmon Figure 1. *Left*: predicted cumulative EOS BTF CPUE according to various run timing scenarios: central 80% (light grey band), central 50% (dark grey band), and the historical median (circles). The grey box shows the range of EOS values from 2010 - 2013, which indexed run sizes past Bethel ranging from 60,000 to 82,000. The dashed horizontal line shows the EOS value from 2022. *Right*: The cumulative BTF CPUE from 2023 plotted along with four previous years intended to represent a range of early/late and small/large index values.



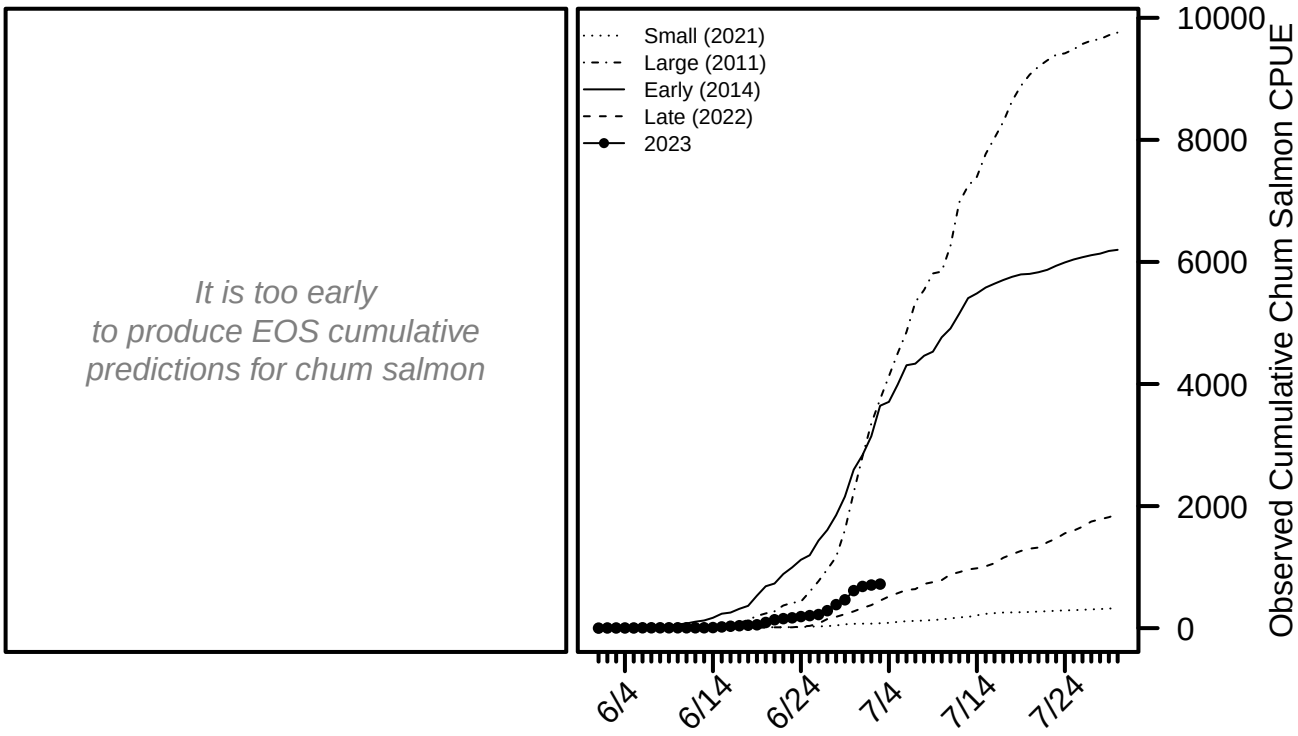
For more detailed information, see the ***Chinook salmon appendix*** *at the end of this document.*

Return to Table of Contents

Chum Salmon BTF Summary (7/3)

- The BTF daily CPUE was **15**.
- The BTF cumulative CPUE is now **721**.
- **21%** years since 2008 fell below this cumulative CPUE on this date.
- **42%** of the run is complete based on historical average run timing.
- **31% - 53%** of the run is complete based the central 50% of all historical run timing scenarios.
- **18% - 20%** of the run is expected to pass Bethel in the next 5 days.
- Over the last 3 days, chum salmon made up **48%** of the BTF catches, compared to **63%** 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 2023 plotted along with four previous years intended to represent a range of early/late and small/large index values.



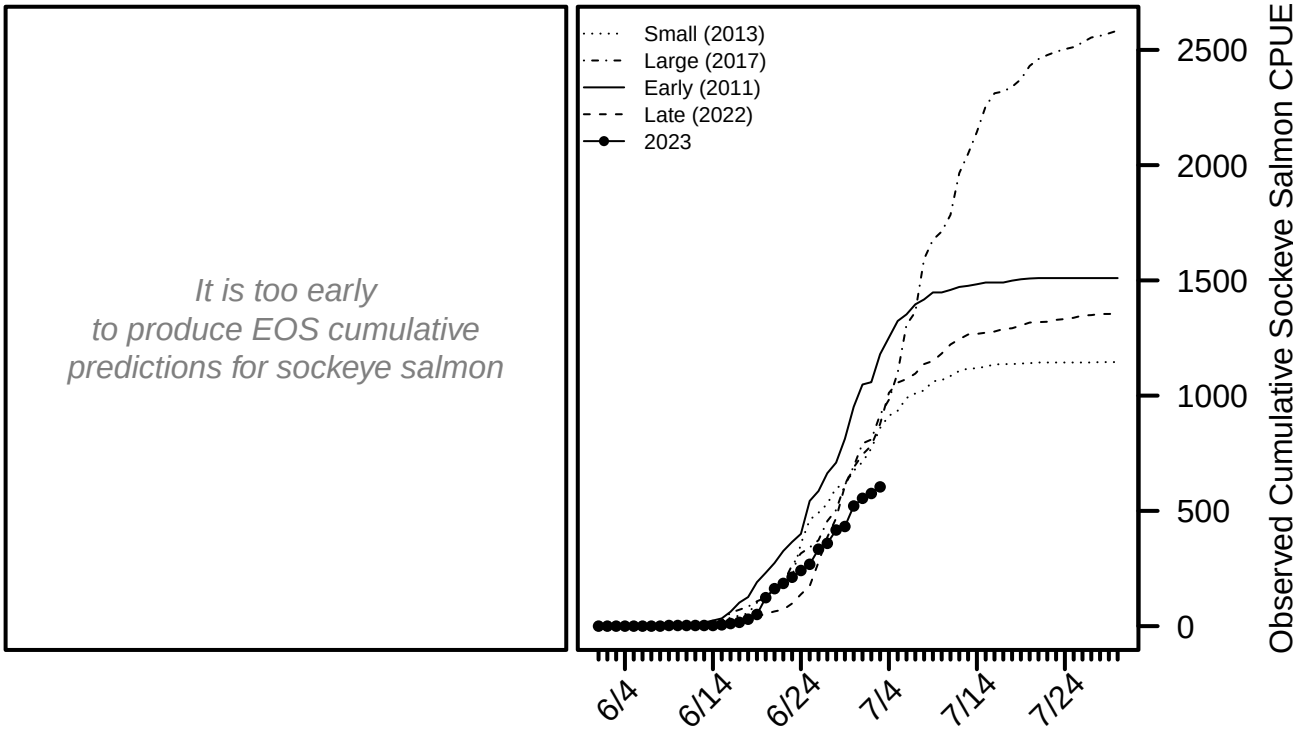
For more detailed information, see the ***chum salmon appendix*** *at the end of this document.*

Return to Table of Contents

Sockeye Salmon BTF Summary (7/3)

- The BTF daily CPUE was **29**.
- The BTF cumulative CPUE is now **604**.
- **21%** years since 2008 fell below this cumulative CPUE on this date.
- **70%** of the run is complete based on historical average run timing.
- **54% - 83%** of the run is complete based on the central 50% of all historical run timing scenarios.
- **13% - 23%** of the run is expected to pass Bethel in the next 5 days.
- Over the last 3 days, sockeye salmon made up **37%** of the BTF catches, compared to **33%** on average.

Sockeye 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 2023 plotted along with four previous years intended to represent a range of early/late and small/large index values.



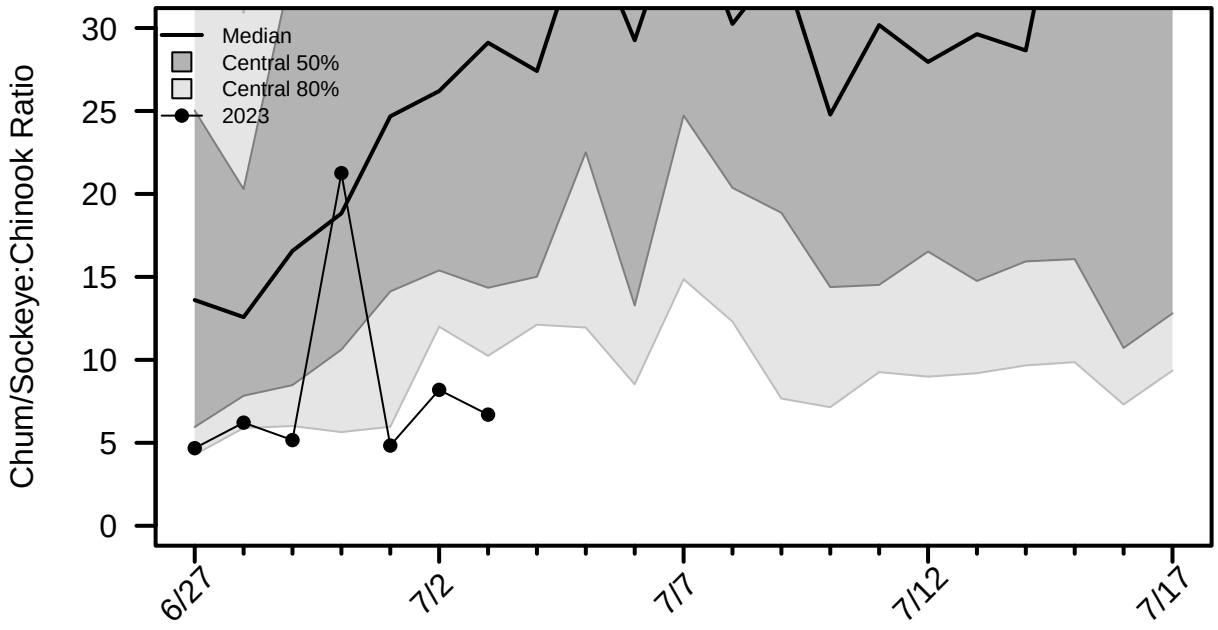
For more detailed information, see the ***sockeye salmon appendix*** *at the end of this document.*

Return to Table of Contents

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 2023 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	2023 BTF	BTF Median	BTF Lower 10%	BTF Upper 10%	2023 ATF
6/30	21.25	18.83	5.65	60.25	0.79
7/1	4.83	24.67	5.97	52.4	1.71
7/2	8.19	26.2	12	72.98	0.46
7/3	**6.7**	**29.11**	**10.24**	**70.42**	**1.5**
7/4		27.41	12.12	83.74	
7/5		36.45	11.95	77.08	
7/6		29.26	8.52	111	

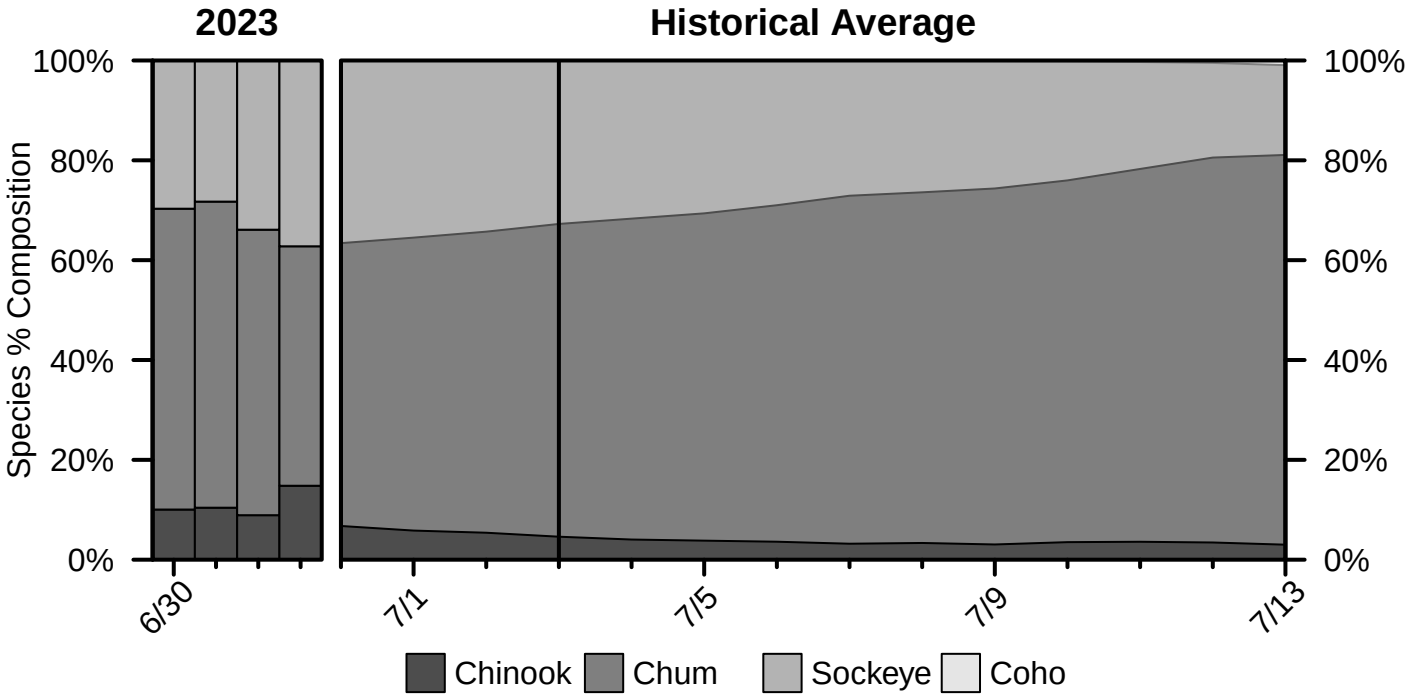
Ratio Table 2. The percent of previous years in which a given species ratio was exceeded at least once before a certain day in the BTF.

Date	Ratio > 1	Ratio > 3	Ratio > 5	Ratio > 10	Ratio > 20
6/30	100%	100%	100%	92%	72%
7/1	100%	100%	100%	95%	79%
7/2	100%	100%	100%	100%	79%
7/3	**100%**	**100%**	**100%**	**100%**	**85%**
7/4	100%	100%	100%	100%	90%
7/5	100%	100%	100%	100%	95%
7/6	100%	100%	100%	100%	97%

Return to Table of Contents

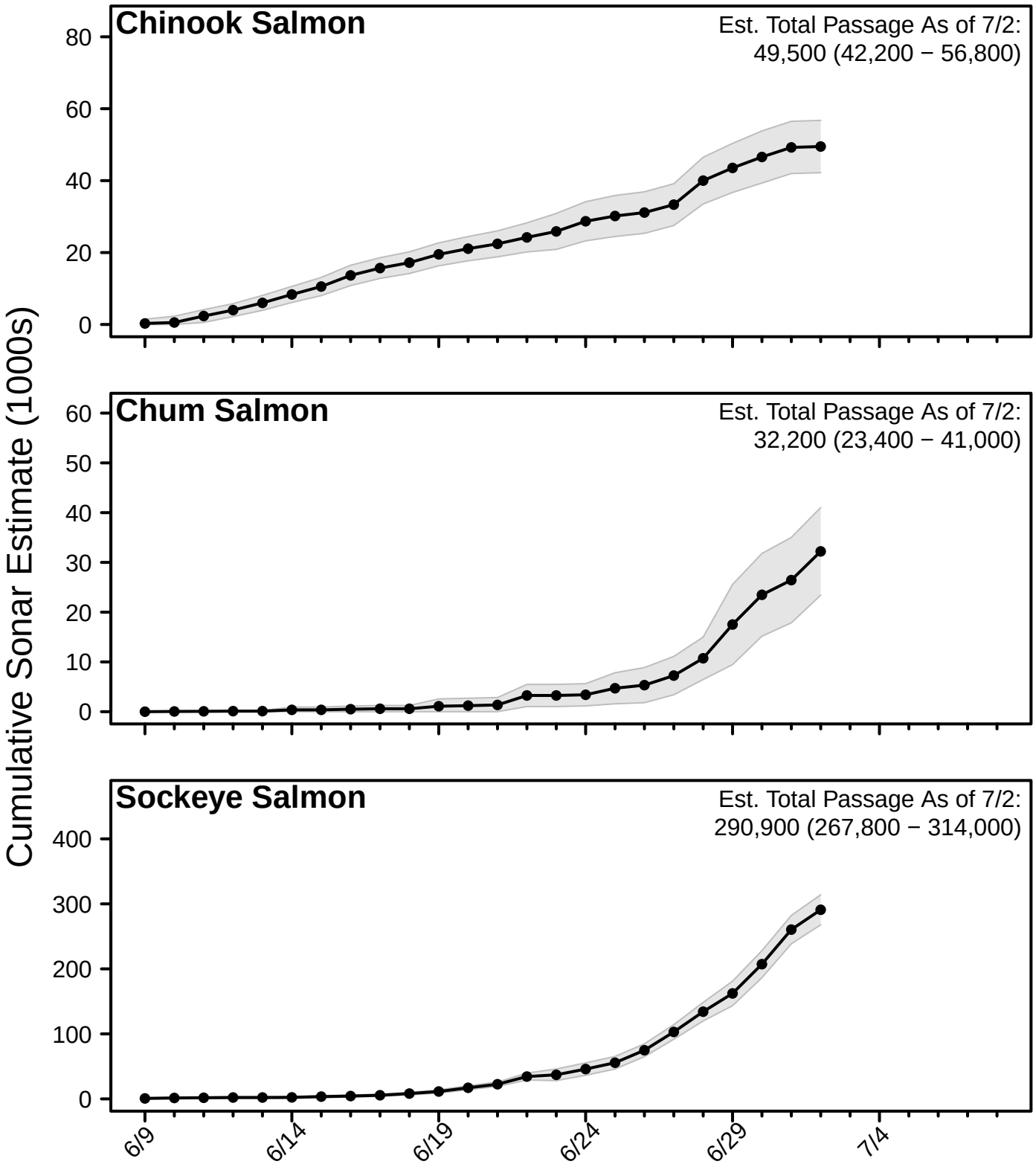
Percent Composition by Salmon Species

Percent Composition Figure 1. Species percent composition in the BTF from 2023 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 2023 sonar operation through the last complete reporting day. Grey bands show the 95% confidence intervals on each complete reporting day. Historical sonar passage estimates can be accessed at https://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareakuskokwim.salmon#fishcounts.



Return to Table of Contents

Chinook Salmon Appendix

Chinook Salmon Table A1. Cumulative CPUE from the BTF.

Date	2023	2022	2021	2020	2019	5-Yr Avg.	2008 - 2022 Avg.
6/30	264	384	376	311	730	456	428
7/1	285	400	401	319	741	474	440
7/2	290	406	404	330	745	481	449
7/3	**297**	**411**	**414**	**349**	**748**	**493**	**461**
7/4		424	422	362	751	503	471
7/5		426	428	370	752	512	481
7/6		437	435	384	759	521	490
EOS		504	532	487	848	608	562

Chinook Salmon Table A2. Cumulative CPUE from the ATF.

Date	2023	2022	2021	2020	2019
6/30	329	792	964	839	1,445
7/1	381	798	1,000	924	1,510
7/2	423	926	1,084	1,000	1,553
7/3	**435**	**1,027**	**1,121**	**1,142**	**1,586**
7/4		1,027	1,256	1,223	1,628
7/5		1,089	1,396	1,299	1,691
7/6		1,115	1,551	1,353	1,691
EOS		1,277	1,891	1,874	1,691

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

Timing	Midpoint	7/3 Cumulative %
Earliest	6/14	96%
Early 10%	6/18	93%
Early 25%	6/21	89%
Median	6/22	84%
Late 25%	6/25	78%
Late 10%	6/26	72%
Latest	7/3	64%

Return to Table of Contents

Chum Salmon Appendix

Chum Salmon Table A1. Cumulative CPUE from the BTF.

Date	2023	2022	2021	2020	2019	5-Yr Avg.	2008 - 2022 Avg.
6/30	614	274	71	268	1,088	659	1,367
7/1	683	330	73	307	1,280	749	1,550
7/2	706	377	73	379	1,369	838	1,731
7/3	**721**	**451**	**80**	**443**	**1,458**	**915**	**1,927**
7/4		518	87	495	1,536	1,003	2,104
7/5		572	102	584	1,636	1,094	2,295
7/6		626	113	612	1,780	1,152	2,476
EOS		2,193	327	1,442	6,427	3,720	5,590

Chum Salmon Table A2. Cumulative CPUE from the ATF.

Date	2023	2022	2021	2020	2019
6/30	95	47	26	425	407
7/1	161	53	26	481	550
7/2	174	89	26	574	593
7/3	**193**	**283**	**34**	**628**	**634**
7/4		304	52	808	778
7/5		368	89	961	1,051
7/6		408	129	1,140	1,051
EOS		952	267	2,611	1,051

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

Timing	Midpoint	7/3 Cumulative %
Earliest	6/23	73%
Early 10%	7/1	63%
Early 25%	7/3	53%
Median	7/6	42%
Late 25%	7/9	31%
Late 10%	7/11	22%
Latest	7/16	15%

Return to Table of Contents

Sockeye Salmon Appendix

Sockeye Salmon Table A1. Cumulative CPUE from the BTF.

Date	2023	2022	2021	2020	2019	5-Yr Avg.	2008 - 2022 Avg.
6/30	521	688	478	192	694	493	607
7/1	554	744	516	235	751	562	690
7/2	575	783	555	376	816	631	756
7/3	**604**	**877**	**594**	**415**	**874**	**691**	**839**
7/4		1,012	654	526	1,020	823	930
7/5		1,056	706	604	1,157	906	1,004
7/6		1,072	832	624	1,396	996	1,082
EOS		1,372	1,694	1,060	2,685	1,817	1,747

Sockeye Salmon Table A2. Cumulative CPUE from the ATF.

Date	2023	2022	2021	2020	2019
6/30	70	66	51	30	22
7/1	92	72	58	48	22
7/2	99	96	84	72	22
7/3	**99**	**96**	**84**	**78**	**22**
7/4		96	102	83	22
7/5		102	135	83	33
7/6		102	189	88	33
EOS		129	241	209	33

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

Timing	Midpoint	7/3 Cumulative %
Earliest	6/22	96%
Early 10%	6/24	91%
Early 25%	6/27	82%
Median	6/29	69%
Late 25%	7/2	53%
Late 10%	7/6	39%
Latest	7/10	25%

Return to Table of Contents

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

Sunday, July 2, 2023

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*	2	7,087	0	66	1,151
Dolgoi Island Area2	0	0	0	0	0
June Shumagin Islands	576	334,846	112	132,157	106,417
June South Unimak	1,159	539,345	22	78,718	92,320
	1,737	**881,278**	**134**	**210,941**	**199,888**