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: **06/21/2017** Time: **10:00 a.m.** Place: **Bethel**

Time Called to Order: Chair: LaMont Albertson

ROLL CALL TO ESTABLISH QUORUM:	**QUORUM MET? Yes / No**
Upriver Elder:	**Processor**:
Downriver Elder:	**Member at Large**:
Commercial Fisher:	**Sport Fisher**:
Lower River Subsistence:	**Western Interior RAC**:
Middle River Subsistence:	**Y-K Delta RAC**:
Upper River Subsistence:	**KRITFC:**
Headwaters Subsistence:	**ADF&G**:

INTRODUCTIONS:
INVOCATION:
APPROVAL OF AGENDA: *the agenda may be amended at this time.*
APPROVAL OF MINUTES: *Optional. ADF&G does not prepare official meeting minutes.*
ADF&G MANAGEMENT ACTIONS UNDER CONSIDERATION:
U.S. FISH & WILDLIFE MANAGEMENT ACTIONS:
PEOPLE TO BE HEARD:
ADF&G LEADERSHIP INTRODUCTIONS/ Q&A
CONTINUING BUSINESS:

- Subsistence Reports: Lowest River, ONC Inseason Subsistence Report, Lower River, Middle River, Upper River, Headwaters.
- Overview of Kuskokwim River salmon run assessment/ discussion of ADF&G considerations:
  a. Test Fisheries (Bethel and Aniak):
  b. Sonar/Weirs/Mark-Recapture/Aerial Surveys/Other:
  c. Subsistence Division Project Update:
- Commercial Catch Report: N/A
- Processor Report:
- Sport Fish Report:
- Intercept Fishery Report: *Zach Liller, ADF&G*
- 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:

NEW BUSINESS:

COMMENTS FROM WORKING GROUP MEMBERS:

NEXT MEETING DATE:_____Time:_____Place:_____

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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.
Jennifer Peeks
Aaron Tiernan
Working Group Coordinators

Orutsararmiut Native Council Inseason Harvest Monitoring Weekly Report

ONC Bethel Test Fishery Distribution

Thus far, we have delivered to 113 elders in Bethel. We also delivered fish to Kasigluk and Oscarville for a family funeral. A total of 42 Chinook salmon, 69 chum salmon, 46 sockeye salmon, and 96 whitefish were delivered between the dates of May 25th through June 19th.

Interview Activities from June 8th - 17th

Total Fish Camps Interviewed	Fishing Start Date (6/3)	Fishing Start Date (6/10)	Fishing Start Date (6/12)	Haven't Begun Fishing
46	3	4	29	10

Summary of Comments

This week, we reduced our survey efforts due to limited gillnet fishing opportunities available for fishermen on the Kuskokwim. The comments provided to us are as follows:

Eight fish camps commented on fishery management. Six of these fish camps reported there are too many restrictions and the limited number of openers prevents them from harvesting Chinook salmon. One fish camp suggested having more restrictions to allow more Chinook salmon to “pass by.” One fish camp recommended an alternative management strategy which would divide the river into sections and manage it section by section, requiring different communities to fish at different times. Two fish camps reported on family harvest changes, which included the desire to harvest more fish as a result of supporting a larger number of households. Two fish camps reported personal reasons for not fishing. Two additional fish camps expressed feelings of disappointment and frustration to our surveyors in regards to the recent fishery management actions.

Total Catch for Lower Kuskokwim River Tagging				
Date	Chinook	Sockeye	Chum	Sheefish
5/26/2017	1	0	0	3
5/27/2017	0	0	0	2
5/28/2017	1	0	0	0
5/29/2017	0	0	0	2
5/30/2017	0	0	0	0
5/31/2017	0	0	0	0
6/1/2017	1	0	0	0
6/2/2017	1	0	0	0
6/3/2017	1	0	0	0
6/4/2017	1	0	0	0
6/5/2017	7	0	0	0
6/6/2017	3	0	0	2
6/7/2017	13	0	1	0
6/8/2017	9	0	0	1
6/9/2017	4	0	0	1
6/10/2017	8	0	1	0
6/11/2017	9	0	1	0
6/12/2017	12	0	0	0
6/13/2017	5	0	0	1
6/14/2017	15	1	0	0
6/15/2017	9	0	0	0
6/16/2017	9	1	0	0
6/17/2017	16	1	0	0
6/18/2017	20	0	3	0
Totals	145	3	6	12

Note- All fish were caught using 7.5" drift gillnets.

Informational Packet

Kuskokwim River Salmon Assessment Update: 6/19/2017

This document presents the key assessment information considered by managers in-season. The production of this document is a collaborative effort between the ADF&G and USFWS. **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 Ben Staton (USFWS; benjamin_staton@fws.gov) or Zachary Liller (ADF&G; zachary.liller@alaska.gov).

Table of Contents *(Click to jump to section)*:

Abbreviations:

- BTF: Bethel Test Fishery
- ATF: Aniak Test Fishery
- CPUE: Catch-per-unit-effort
- EOS: End-of-Season

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

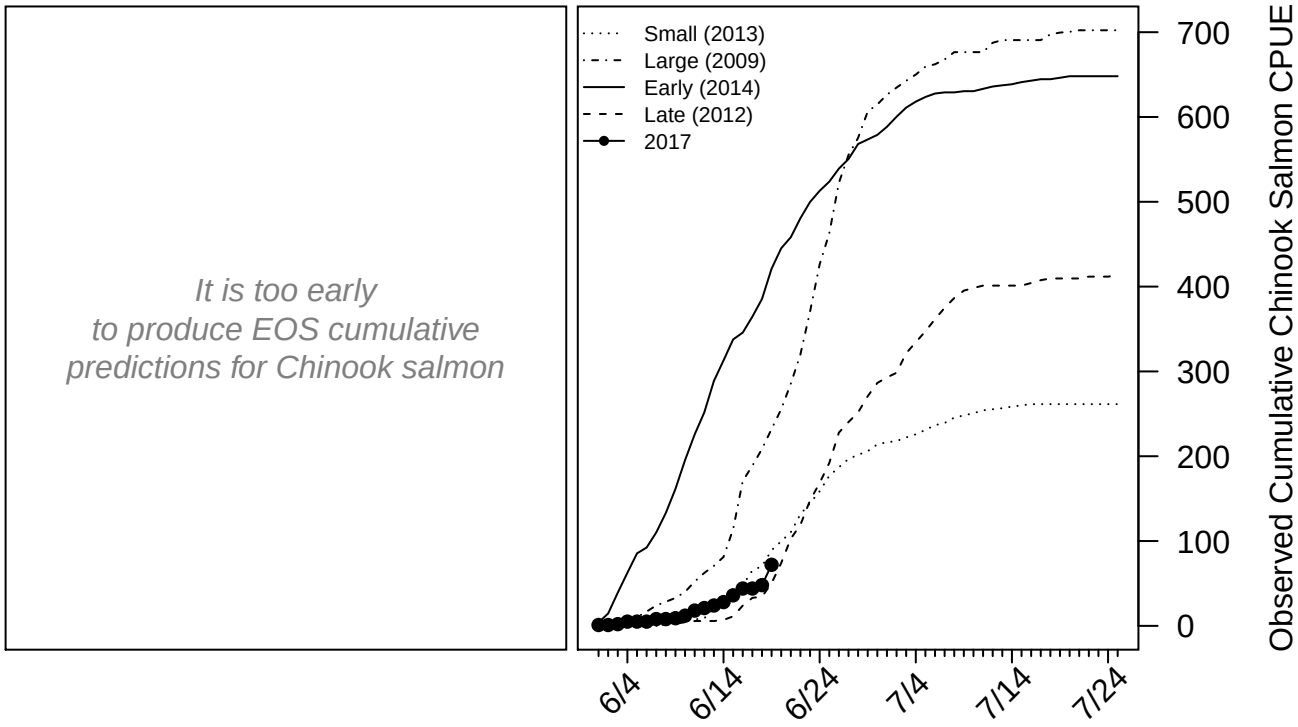
For the most up-to-date information regarding fishing opportunities please visit:

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

Chinook Salmon (6/19)

- The BTF daily CPUE was **24**.
- The BTF cumulative CPUE is **72**.
- **1** year since 2008 (**11%**) fell below this cumulative CPUE.
- **35%** of the run is complete based on historical average run timing.
- **39%** of the run is complete based on a slightly early-to-average offical run timing forecast.
- Late run scenarios are considered highly unlikely at this time due to the timing forecast.
- **21 - 22%** of the run is expected to pass in the next 5 days.
- Over the last 3 days, Chinook salmon made up **10%** of the BTF catches, compared to **22%** on averge.

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 2017 plotted along with four previous years intended to represent a range of early/late and small/large index values.

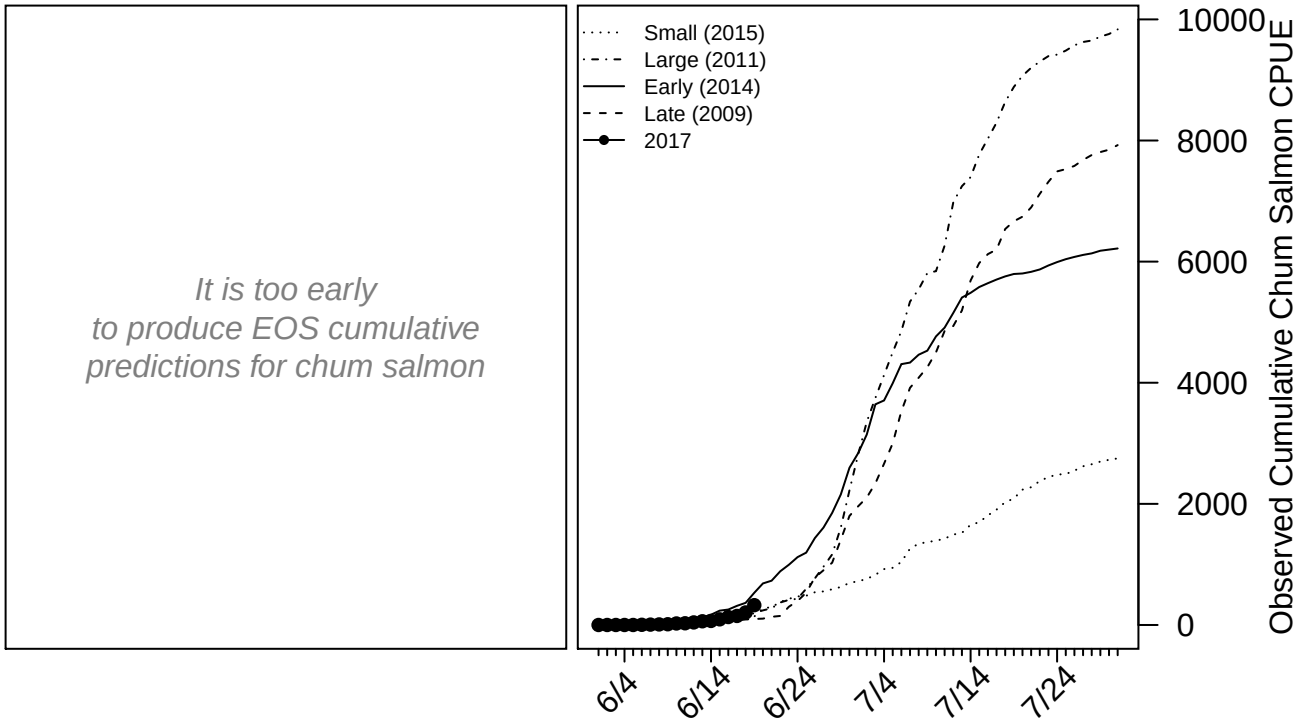


For more detailed information, see the Chinook salmon appendix at the end of this document.

Chum Salmon (6/19)

- The BTF daily CPUE was **120**.
- The BTF cumulative CPUE is **327**.
- **7** years since 2008 (**78%**) fell below this cumulative CPUE.
- **7%** of the run is complete based on historical average run timing.
- No run timing forecast is available for chum salmon.
- **5 - 10%** of the run is expected to pass in the next 5 days.
- Over the last 3 days, chum salmon made up **71%** of the BTF catches, compared to **43%** on averge.

Chum 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 2017 plotted along with four years intended to represent a range of early/late and small/large index values.

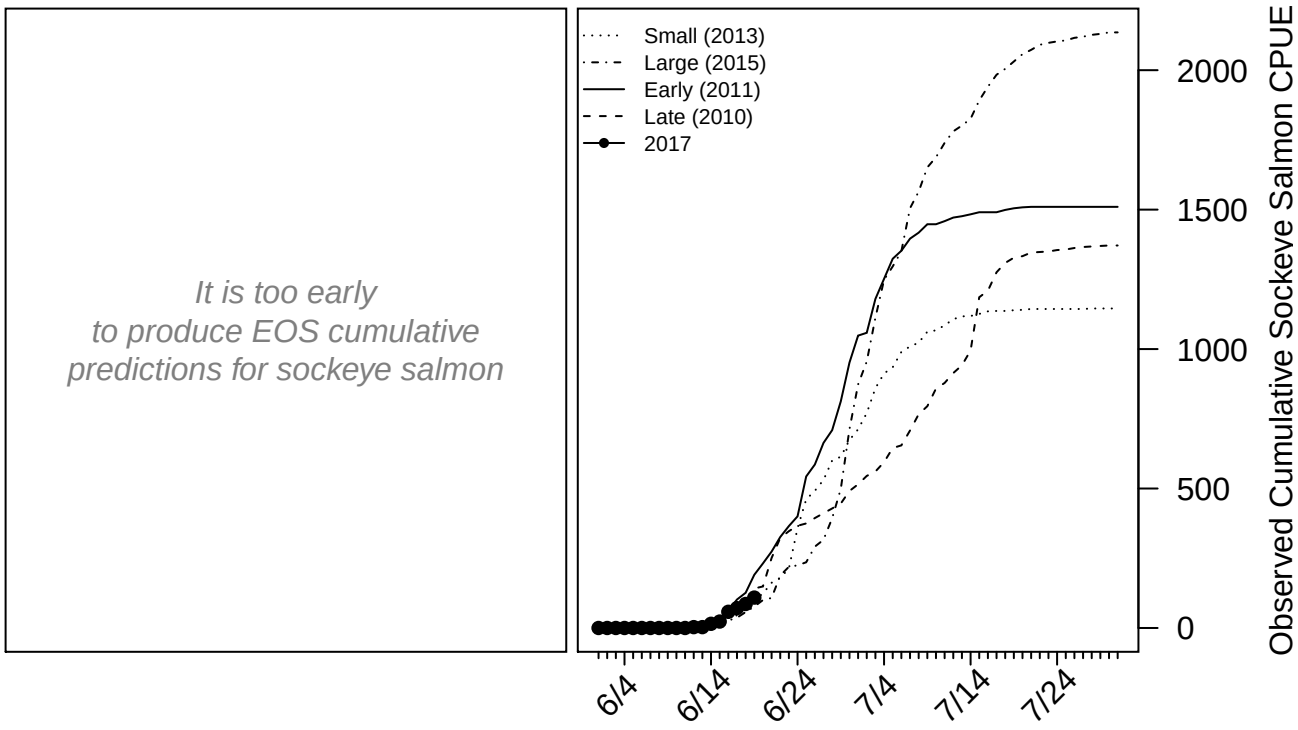


For more detailed information, see the chum salmon appendix at the end of this document.

Sockeye Salmon (6/19)

- The BTF daily CPUE was **23**.
- The BTF cumulative CPUE is **109**.
- **6** years since 2008 (**67%**) fell below this cumulative CPUE.
- **10%** of the run is complete based on historical average run timing.
- No run timing forecast is available for sockeye salmon.
- **12 - 23%** of the run is expected to pass in the next 5 days.
- Over the last 3 days, sockeye salmon made up **19%** of the BTF catches, compared to **35%** on averge.

Sockeye 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 2017 plotted along with four years intended to represent a range of early/late and small/large index values.

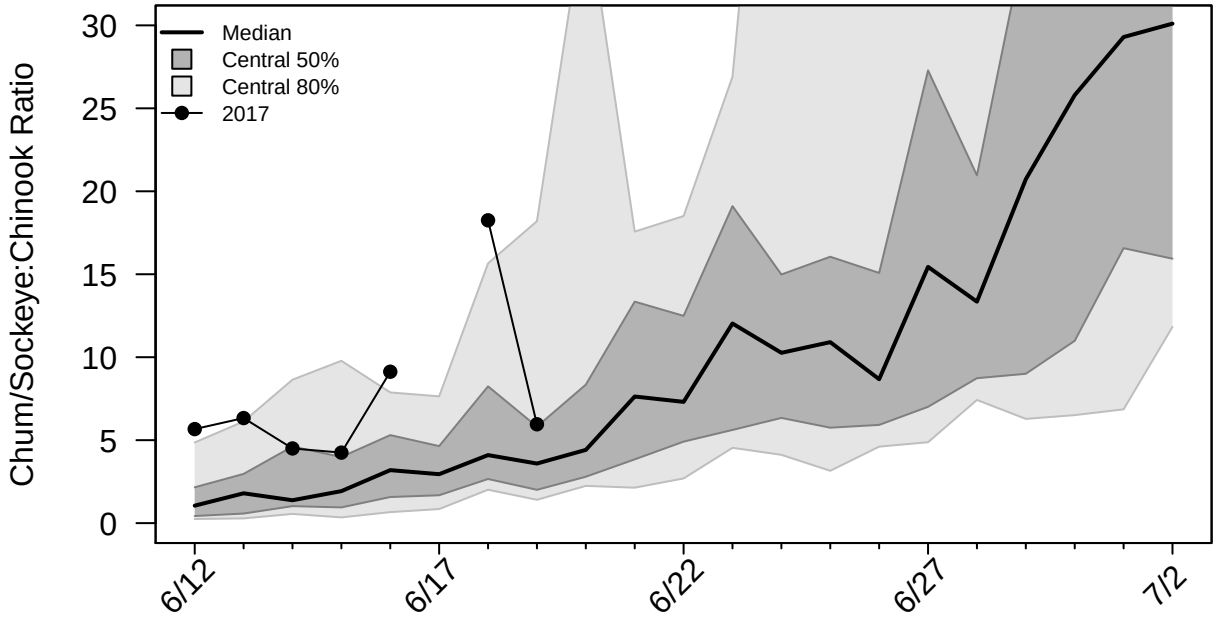


For more detailed information, see the sockeye salmon appendix at the end of this document.

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. A value of zero indicates Chinook salmon were counted, but not chum or sockeye salmon. A missing value on a day the project operated indicates no Chinook salmon were counted.

Ratio Figure 1. Time series of the species ratio with historical quantiles shown as grey regions and the ratio time series for 2017 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 sonar project and ATF.

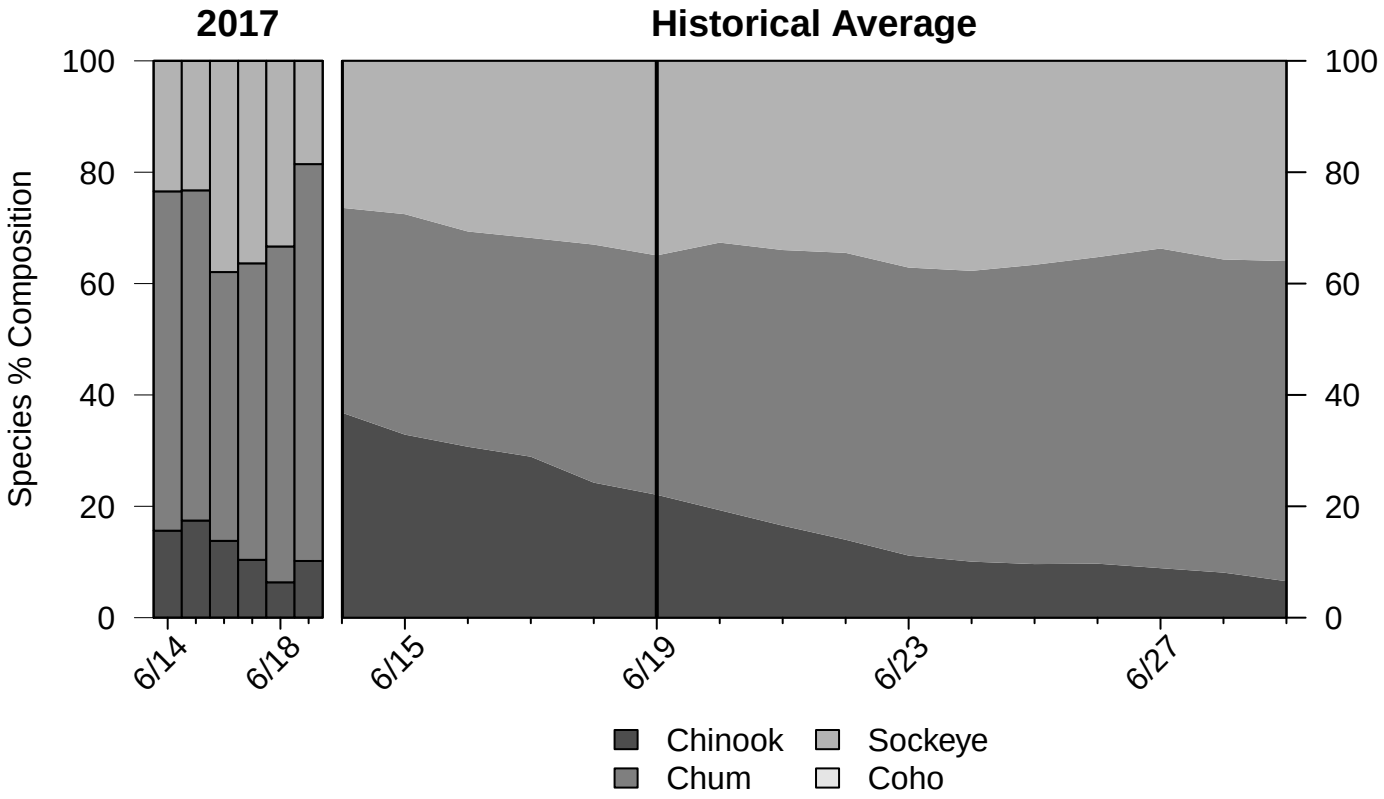
Date	2017 BTF	BTF Median	BTF Lower 10%	BTF Upper 10%	2017 Sonar	2017 ATF
6/16	9.12	3.19	0.66	7.88	–	0.28
6/17	–	2.95	0.85	7.64	5.31	0.17
6/18	18.25	4.1	2.01	15.65	19.34	0.21
6/19	**5.96**	**3.59**	**1.41**	**18.2**		**0.23**
6/20		4.41	2.24	37.44		
6/21		7.63	2.14	17.57		
6/22		7.31	2.69	18.51		

Ratio Table 2. The probability that a given species ratio will be exceeded by a certain day in the BTF (calculated based on all previous years: 1984 - 2016).

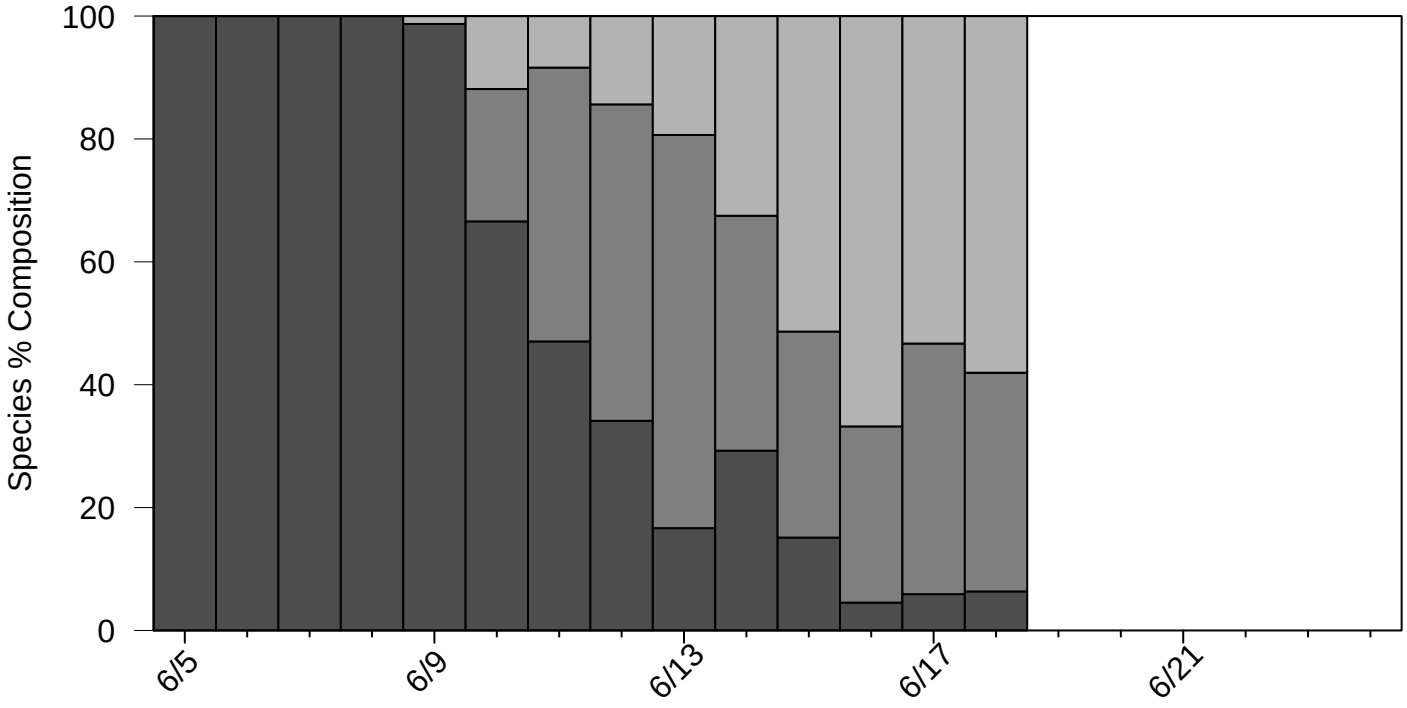
Date	Ratio > 1	Ratio > 3	Ratio > 5	Ratio > 10	Ratio > 20
6/16	0.94	0.79	0.52	0.21	0.06
6/17	0.97	0.82	0.55	0.24	0.06
6/18	0.97	0.85	0.61	0.36	0.12
6/19	**0.97**	**0.88**	**0.7**	**0.39**	**0.15**
6/20	1	0.91	0.76	0.48	0.24
6/21	1	0.94	0.91	0.61	0.24
6/22	1	0.97	0.97	0.67	0.24

Species Composition

Species Composition Figure 1. Species percent composition in the BTF from 2017 and based on historical average. The composition presented on each day represents the average composition over the past 3 days.

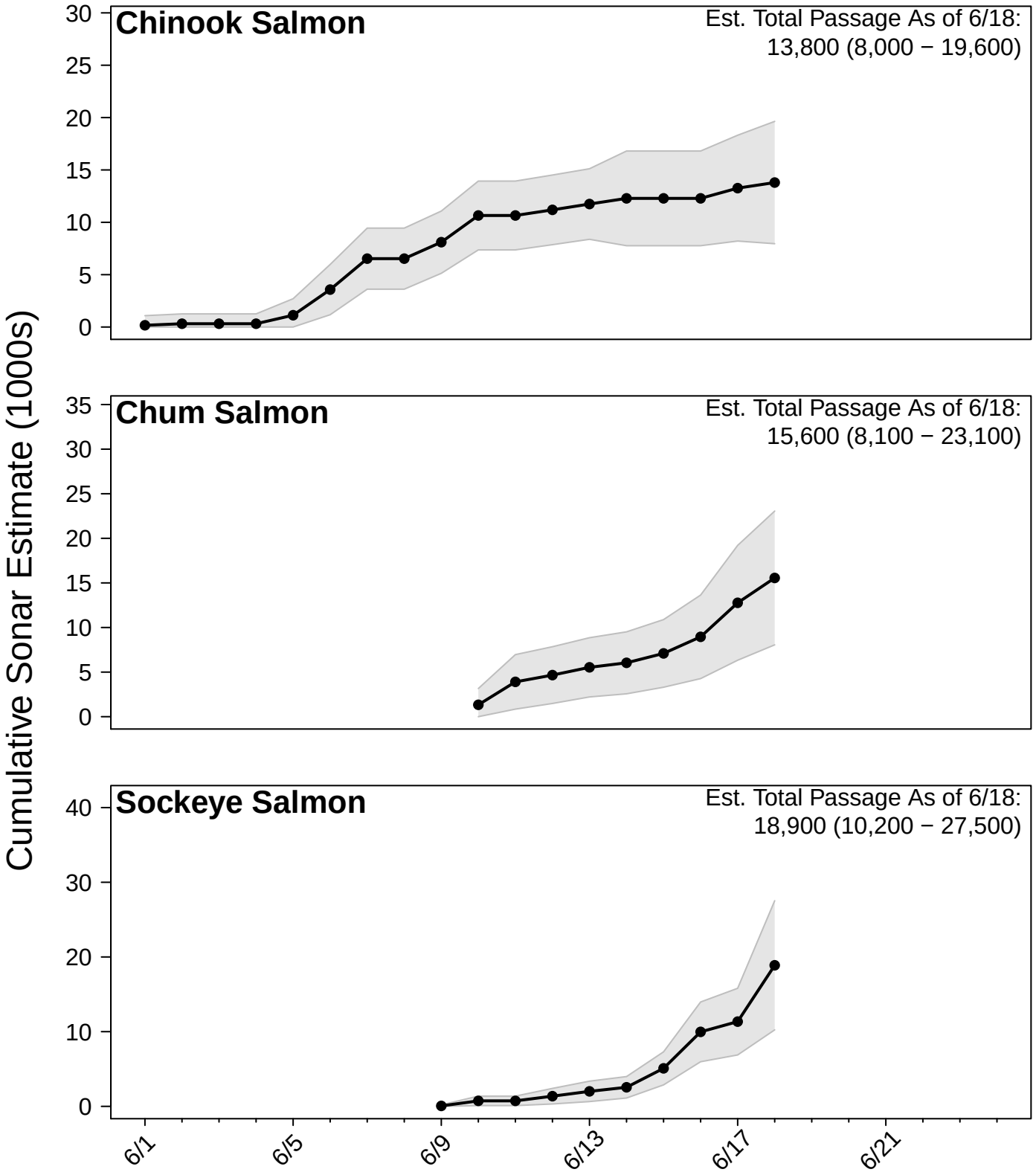


Species Composition Figure 2. Species percent composition from the sonar estimates from 2017 (salmon species only, excluding pinks). The composition presented on each day represents the average composition over the past 3 days.



Sonar

Sonar Figure 1. Cumulative estimates of salmon passage from the 2017 sonar operation through the last complete reporting day. Grey bands show the 95% confidence intervals on each complete reporting day. The sonar project began partial operations on June 1 and full operations on June 3.



Chinook Salmon Appendix

Chinook Salmon Table A1. Cumulative CPUE from the BTF.

Date	2017	2016	2015	2014	2013	5-Yr Avg.	2008 - 2016 Avg.
6/16	44	230	192	346	48	168	153
6/17	44	245	216	365	65	185	171
6/18	48	266	238	385	70	199	189
6/19	**72**	**278**	**259**	**421**	**89**	**219**	**212**
6/20		304	271	445	100	239	233
6/21		318	296	458	110	257	256
6/22		340	321	481	132	279	281
EOS		687	625	650	261	528	557

Chinook Salmon Table A2. Cumulative CPUE from the ATF.

Date	2017	2016	2015
6/16	559	1,076	519
6/17	650	1,149	684
6/18	726	1,189	806
6/19	**792**	**1,304**	**1,020**
6/20		1,334	1,138
6/21		1,386	1,311
6/22		1,403	1,496
EOS		2,729	2,916

Chinook Salmon Table A3. Percent of run complete according to various historical run timing scenarios and the preliminary 2017 run timing forecast (with forecast uncertainty).

Timing	Historical Midpoint	Historical 6/19 Cumulative %	Forecasted Midpoint	Forecasted 6/19 Cumulative %
Earliest	6/15	69%	6/16	66%
Early 10%	6/18	54%	6/18	56%
Early 25%	6/21	41%	6/19	48%
Median	6/23	35%	6/21	39%
Late 25%	6/24	27%	6/23	31%
Late 10%	6/26	21%	6/25	24%
Latest	7/3	3%	6/27	17%

Chum Salmon Appendix

Chum Salmon Table A1. Cumulative CPUE from the BTF.

Date	2017	2016	2015	2014	2013	5-Yr Avg.	2008 - 2016 Avg.
6/16	131	50	46	255	37	83	78
6/17	149	50	62	316	48	104	99
6/18	207	58	87	365	69	127	149
6/19	**327**	**61**	**140**	**532**	**115**	**189**	**210**
6/20		120	277	686	139	279	276
6/21		209	293	731	235	371	358
6/22		239	381	886	313	474	457
EOS		3,894	2,943	6,343	5,708	5,156	6,496

Chum Salmon Table A2. Cumulative CPUE from the ATF.

Date	2017	2016	2015
6/16	175	80	81
6/17	190	105	97
6/18	206	113	115
6/19	**222**	**137**	**124**
6/20		153	155
6/21		196	162
6/22		221	179
EOS		5,304	5,669

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

Timing	Midpoint	6/19 Cumulative %
Earliest	6/24	26%
Early 10%	7/1	12%
Early 25%	7/3	9%
Median	7/6	7%
Late 25%	7/7	4%
Late 10%	7/10	3%
Latest	7/12	2%

Sockeye Salmon Appendix

Sockeye Salmon Table A1. Cumulative CPUE from the BTF.

Date	2017	2016	2015	2014	2013	5-Yr Avg.	2008 - 2016 Avg.
6/16	58	5	27	108	37	36	40
6/17	71	8	37	115	45	43	52
6/18	86	18	57	126	56	54	67
6/19	**109**	**39**	**77**	**142**	**102**	**78**	**100**
6/20		55	100	188	123	102	123
6/21		57	108	193	162	121	156
6/22		63	188	239	179	153	202
EOS		2,463	2,157	1,367	1,146	1,661	1,603

Sockeye Salmon Table A2. Cumulative CPUE from the ATF.

Date	2017	2016	2015
6/16	7	0	0
6/17	7	0	0
6/18	7	0	0
6/19	**7**	**0**	**0**
6/20		0	0
6/21		0	0
6/22		0	0
EOS		405	1,245

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

Timing	Midpoint	6/19 Cumulative %
Earliest	6/23	33%
Early 10%	6/24	25%
Early 25%	6/26	17%
Median	6/28	10%
Late 25%	6/30	6%
Late 10%	7/3	4%
Latest	7/11	2%

ADF&G Division of Subsistence Kuskokwim River Activities, 2017

Lower River in-season monitoring:
Subsistence division staff maintains regular contact with over 30 volunteer fishers in the communities of Nunapitchuk, Napakiak, Oscarville, and Bethel to collect drift gillnet fishing harvest and effort information. Staff are also recording numbers of active boats and nets on the Kuskokwim River during subsistence salmon fishing openings in the lower Kuskokwim River. Staff will continue with these activities during the next fishing opportunity with the objective of providing fishing effort information to the Working Group.

Middle River in-season monitoring:
In collaboration with division staff, Native Village of Napaimute (NVN) staff members are recording numbers of active boats and nets on the middle Kuskokwim River during subsistence salmon fishing openings between Kalskag and Chuathbaluk. In July, Division of Subsistence staff will join NVN staff in the middle river to continue monitoring active fishing and also to conduct surveys to collect data related to fishing effort and harvest in all communities from Kalskag to Stony River.

Kuskokwim River Community Outreach
Division staff have visited the communities of Napakiak (several visits since May), Aniak and Chuathbaluk with Dan Gillikin of NVN (May 26), Nunapitchuk (June 6), Kalskag with NVN technicians (June 10), Tuluksak and Napaskiak (June 15), and Kwethluk (June 19) to be available for questions and comments regarding this season's subsistence salmon fishing opportunities. Staff have provided information to the public regarding other ADF&G assessment projects, as well as opportunities for local participation in ongoing research. Subsistence staff will continue to consult with ADF&G, U.S. Fish and Wildlife Service, and tribal staff to ensure that our community visits will result in timely information getting from management staff to the public, as well as questions, concerns, and fishing harvest information getting from stakeholders back to managers.