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# Kuskokwim River In-season Harvest and Effort Estimates

## 6/3/2023 Subsistence Harvest Opportunity (Set Nets Only)

Opportunity Time Period: 6:00 AM – 10:00 PM (16 Hours)

Area Covered by Estimates: Tuntutuliak ↔ Bogus Cr.

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## Data Sources

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

Data Source	Interviews	Percent
Other Villages (KRITFC)	11	46%
Bethel Boat Harbor (ONC)	9	37%
Bethel Area Fish Camps (ONC)	4	17%
<b>Total</b>	<b>24</b>	<b>100%</b>

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

Time Information			Nets Counted	
Start Time	End Time	Hours	Drift	Set
2:00 PM	4:20 PM	2.33	0	60

## Effort Estimates

- An estimated **60** set net trips occurred.

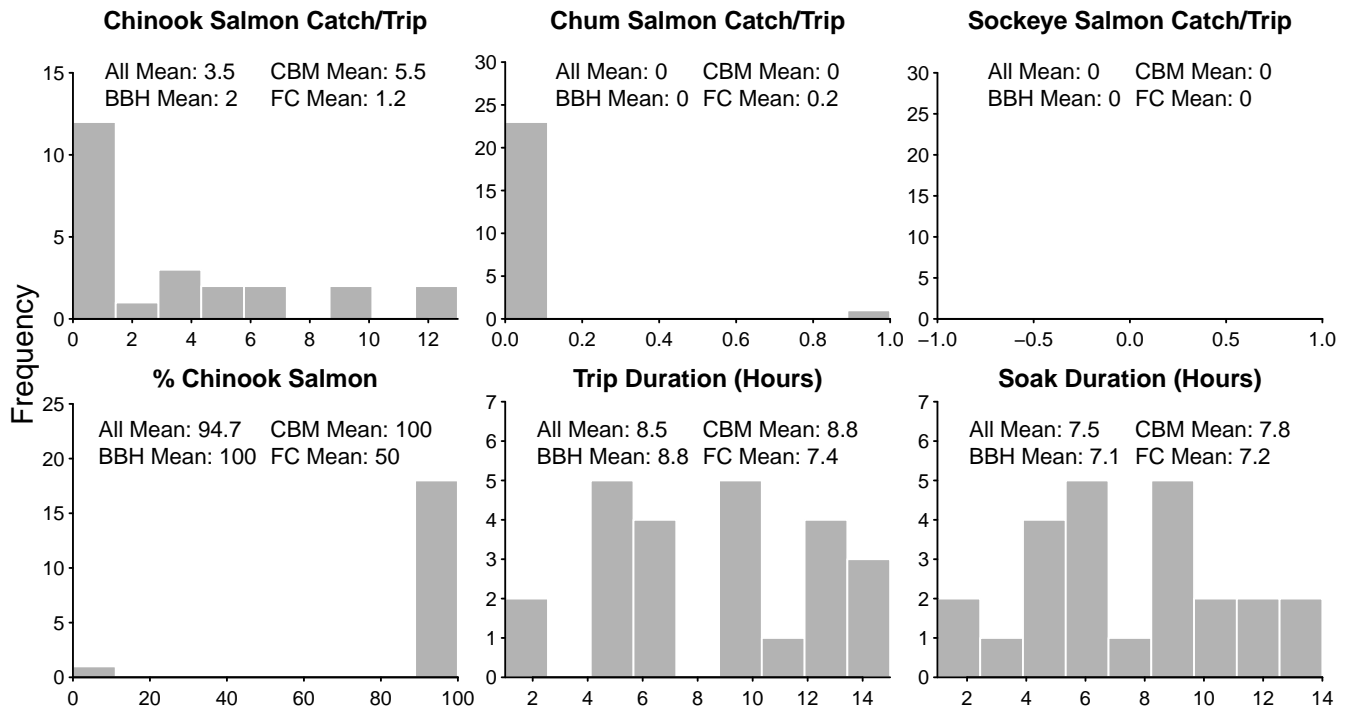
## Harvest Estimates

- An estimated total of **381 (195 – 613)** salmon were harvested.
  - An estimated total of **376 (191 – 613)** Chinook salmon were harvested.
  - An estimated total of **4 (0 – 14)** chum salmon were harvested.
  - An estimated total of **0 (0 – 0)** sockeye salmon were harvested.

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

Stratum	Interviews	Effort Est.	Estimated Harvest			
			Chinook	Chum	Sockeye	Total
Tuntutuliak ↔ Johnson R.	0	1	6 (3 – 10)	0 (0 – 0)	0 (0 – 0)	6 (3 – 10)
Johnson R. ↔ Napaskiak	6	10	63 (32 – 102)	1 (0 – 2)	0 (0 – 0)	64 (33 – 103)
Napaskiak ↔ Akiachak	17	41	257 (130 – 419)	3 (0 – 10)	0 (0 – 0)	260 (133 – 419)
Akiachak ↔ Akiak	1	5	31 (16 – 51)	0 (0 – 1)	0 (0 – 0)	32 (16 – 51)
Akiak ↔ Bogus Cr.	0	3	19 (10 – 31)	0 (0 – 1)	0 (0 – 0)	19 (10 – 31)
<b>Total</b>	<b>24</b>	<b>60</b>	<b>376</b> <b>(191 – 613)</b>	<b>4</b> <b>(0 – 14)</b>	<b>0</b> <b>(0 – 0)</b>	<b>381</b> <b>(195 – 613)</b>

**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
Johnson R. ↔ Napaskiak	6	6	8	9	11	13
Napaskiak ↔ Akiachak	17	0	0	2	3	5
Akiachak ↔ Akiak	1	1	1	1	1	1
<b>All</b>	<b>24</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>5</b>	<b>13</b>

**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
Johnson R. ↔ Napaskiak	6	2.1	2.4	2.8	3.1	3.9
Napaskiak ↔ Akiachak	17	0	0	1.6	0.6	12.5
Akiachak ↔ Akiak	1	0	0	0	0	0
<b>All</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>1.9</b>	<b>2.4</b>	<b>12.5</b>

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

Area	N	Min	25%	Mean	75%	Max
Johnson R. ↔ Napaskiak	6	0	0	0	0	0
Napaskiak ↔ Akiachak	17	0	0	0	0	1
Akiachak ↔ Akiak	1	0	0	0	0	0
<b>All</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>

**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
Johnson R. ↔ Napaskiak	6	0	0	0	0	0
Napaskiak ↔ Akiachak	17	0	0	0	0	0.5
Akiachak ↔ Akiak	1	0	0	0	0	0
<b>All</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.5</b>

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

Area	N	Min	25%	Mean	75%	Max
Johnson R. ↔ Napaskiak	6	0	0	0	0	0
Napaskiak ↔ Akiachak	17	0	0	0	0	0
Akiachak ↔ Akiak	1	0	0	0	0	0
<b>All</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**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
Johnson R. ↔ Napaskiak	6	0	0	0	0	0
Napaskiak ↔ Akiachak	17	0	0	0	0	0
Akiachak ↔ Akiak	1	0	0	0	0	0
<b>All</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

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

Area	N	Min	25%	Mean	75%	Max
Johnson R. ↔ Napaskiak	6	100%	100%	100%	100%	100%
Napaskiak ↔ Akiachak	17	0%	100%	92%	100%	100%
Akiachak ↔ Akiak	1	100%	100%	100%	100%	100%
<b>All</b>	<b>24</b>	<b>0%</b>	<b>100%</b>	<b>95%</b>	<b>100%</b>	<b>100%</b>

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

Area	N	Min	25%	Mean	75%	Max
Johnson R. ↔ Napaskiak	6	5	6.8	9.1	10.4	14
Napaskiak ↔ Akiachak	17	1	5.5	8	12	14.5
Akiachak ↔ Akiak	1	15	15	15	15	15
<b>All</b>	<b>24</b>	<b>1</b>	<b>5.5</b>	<b>8.5</b>	<b>12.1</b>	<b>15</b>

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

Area	N	Min	25%	Mean	75%	Max
Johnson R. ↔ Napaskiak	6	4.8	6.4	8.6	9.9	13
Napaskiak ↔ Akiachak	17	1	4.8	6.9	9	14
Akiachak ↔ Akiak	1	10	10	10	10	10
<b>All</b>	<b>24</b>	<b>1</b>	<b>4.9</b>	<b>7.5</b>	<b>9.6</b>	<b>14</b>