

Submitted by Brian Koski

RC 129

Table 8.—All-fish stock compositions and stock-specific harvest estimates for Chinook salmon harvested in the Kenai and East Foreland sections of the Eastside set gillnet fishery by similar temporal strata across years, Upper Cook Inlet, Alaska, 2010, 2011, and 2013–2018.

Stratum	Dates	Year	Reporting group							
			Kenai River tributaries		Kenai River mainstem		Kasilof River mainstem		Cook Inlet other	
			Stock composition	Stock-specific harvest	Stock composition	Stock-specific harvest	Stock composition	Stock-specific harvest	Stock composition	Stock-specific harvest
Kenai-	8–31 Jul	2010	0.01	27	0.95	2,229	0.03	64	0.01	22
East Foreland	11–31 Jul	2011	0.00	1	1.00	2,140	0.00	2	0.00	1
sections "Late" <sup>a</sup>	8–23 Jul	2013	0.00	2	0.94	1,274	0.06	78	0.00	0
	9–23 Jul	2014	0.00	1	0.97	416	0.02	10	0.00	0
	9–30 Jul	2015	0.00	3	0.98	3,398	0.02	82	0.00	2
	11–28 Jul	2016	0.00	5	0.94	3,061	0.06	195	0.00	1
	10–31 Jul	2017	0.00	5	0.95	1,983	0.05	97	0.00	1
	9–23 Jul	2018	0.00	1	1.00	735	0.00	2	0.00	1
	Average		0.00	6	0.97	1,904	0.03	66	0.00	4
Kenai-	2–6 Aug	2014	0.00	1	0.97	214	0.03	6	0.00	0
East Foreland	1–12 Aug	2015	0.00	0	0.94	855	0.05	49	0.00	0
sections "August"	3–14 Aug	2017	0.00	0	0.83	316	0.17	63	0.00	0
	Average		0.00	0	0.92	461	0.08	39	0.00	0

Note: The 90% credibility intervals of stock compositions and stock specific-harvest estimates for prior years can be found in Appendices A1–A4 of this report for 2010–2014, Eskelin and Barclay (2016–2018) for 2015–2017, and Table 3 of this report for 2018.

<sup>a</sup> "Late" describes the portion of the fishery in July after the Kenai and East Foreland sections open for the season.

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Submitted by Brian Koski

RC 129

Fishery Data Series No. 19-26

RC 122 continued.

**Eastside Set Gillnet Chinook Salmon Harvest  
Composition in Upper Cook Inlet, Alaska, 2018, with  
Large Fish Composition Estimates for 2010–2014**

Table 10.—Large ( $\geq 75$  cm METF) fish stock compositions and stock-specific harvest estimates by year for Chinook salmon harvested in the Kasilof Section of Eastside set gillnet fishery by spatiotemporal stratum, Upper Cook Inlet, Alaska, 2010, 2011, and 2013–2018.

Stratum	Dates	Year	Reporting group							
			Kenai River tributaries		Kenai River mainstem		Kasilof River mainstem		Cook Inlet other	
			Stock comp <sup>a</sup>	Stock-specific harvest	Stock comp <sup>a</sup>	Stock-specific harvest	Stock comp <sup>a</sup>	Stock-specific harvest	Stock comp <sup>a</sup>	Stock-specific harvest
Kasilof Section “Early” <sup>b</sup>	27 Jun–7 Jul	2010	0.00	2	0.11	98	0.04	40	0.01	9
	25 Jun–9 Jul	2011	0.00	0	0.30	463	0.11	176	0.00	0
	27 Jun–6 Jul	2013	0.00	0	0.16	65	0.03	10	0.02	8
	23 Jun–7 Jul	2014	0.00	0	0.08	38	0.03	13	0.00	1
	22 Jun–6 Jul	2015	0.00	1	0.11	90	0.06	49	0.05	44
	23 Jun–9 Jul	2016	0.00	4	0.23	267	0.11	130	0.02	28
	24 Jun–8 Jul	2017	0.01	10	0.47	338	0.13	95	0.04	30
	25 Jun–7 Jul	2018	0.02	16	0.16	107	0.01	7	0.01	10
	<b>Average</b>		0.01	4	0.20	183	0.07	65	0.02	16
Kasilof Section “Late” <sup>c</sup>	8–31 Jul	2010	0.01	14	0.22	574	0.39	1,048	0.02	46
	11–31 Jul	2011	0.00	1	0.27	835	0.30	917	0.00	2
	8–23 Jul	2013	0.00	0	0.20	170	0.07	63	0.00	0
	9–23 Jul	2014	0.00	0	0.21	117	0.18	99	0.00	0
	9–30 Jul	2015	0.00	1	0.25	401	0.20	316	0.00	2
	11–28 Jul	2016	0.00	3	0.28	467	0.34	574	0.00	2
	10–31 Jul	2017	0.01	15	0.49	672	0.27	373	0.01	13
	9–28 Jul	2018	0.00	0	0.26	220	0.16	133	0.00	0
	<b>Average</b>		0.00	4	0.27	432	0.24	440	0.00	8

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Stratum	Dates	Year	Reporting group							
			Kenai River tributaries		Kenai River mainstem		Kasilof River mainstem		Cook Inlet other	
			Stock comp <sup>a</sup>	Stock-specific harvest	Stock comp <sup>a</sup>	Stock-specific harvest	Stock comp <sup>a</sup>	Stock-specific harvest	Stock comp <sup>a</sup>	Stock-specific harvest
Kasilof Section "August"	1–10 Aug	2015	0.00	1	0.34	115	0.46	155	0.00	0
	3–15 Aug	2017	0.00	1	0.33	76	0.57	130	0.00	0
		<b>Average</b>	<b>0.00</b>	<b>1</b>	<b>0.34</b>	<b>96</b>	<b>0.52</b>	<b>142</b>	<b>0.00</b>	<b>0</b>
Kasilof River Special Harvest Area	17 Jul–2 Aug	2013	0.00	0	0.16	59	0.49	174	0.00	0
	16 Jul–2 Aug	2014	0.00	1	0.12	77	0.49	305	0.00	0
	7 Jul–2 Aug	2015	0.01	3	0.14	60	0.31	132	0.00	1
		<b>Average</b>	<b>0.00</b>	<b>2</b>	<b>0.14</b>	<b>65</b>	<b>0.43</b>	<b>204</b>	<b>0.00</b>	<b>0</b>
<b>Kasilof 600 ft<sup>d</sup></b>	<b>15–31 Jul</b>	<b>2015</b>	<b>0.00</b>	<b>1</b>	<b>0.16</b>	<b>32</b>	<b>0.26</b>	<b>55</b>	<b>0.00</b>	<b>1</b>

Note: The 90% credibility intervals of stock compositions and stock specific-harvest estimates can be found in Appendices A1–A4 of this report for 2010–2014, Eskelin and Barclay (2016–2018) for 2015–2017, and Table 3 of this report for 2018.

- <sup>a</sup> "Stock comp" means stock composition of large fish relative to the total harvest of all fish (large and small combined).
- <sup>b</sup> "Early" describes the portion of the fishery prior to the Kenai and East Foreland sections opening for the season.
- <sup>c</sup> "Late" describes the portion of the fishery in July after the Kenai and East Foreland sections open for the season.
- <sup>d</sup> Kasilof Section openings restricted to within 600 feet of the mean high tide mark.

Table 11.—Large ( $\geq 75$  cm METF) fish stock compositions and stock-specific harvest estimates by year for Chinook salmon harvested in the Kenai and East Foreland sections of the Eastside set gillnet fishery by temporal stratum, Upper Cook Inlet, Alaska, 2010, 2011, 2013–2018.

Stratum	Dates	Year	Reporting group							
			Kenai River tributaries		Kenai River mainstem		Kasilof River mainstem		Cook Inlet other	
			Stock comp <sup>a</sup>	Stock-specific harvest	Stock comp <sup>a</sup>	Stock-specific harvest	Stock comp <sup>a</sup>	Stock-specific harvest	Stock comp <sup>a</sup>	Stock-specific harvest
Kenai– East Foreland sections “Late” <sup>b</sup>	8–31 Jul	2010	0.00	12	0.46	1,084	0.01	29	0.00	8
	11–31 Jul	2011	0.00	1	0.41	869	0.00	1	0.00	0
	8–23 Jul	2013	0.00	1	0.28	385	0.02	32	0.00	0
	9–23 Jul	2014	0.00	0	0.38	162	0.01	5	0.00	0
	9–30 Jul	2015	0.00	1	0.44	1,545	0.01	27	0.00	1
	11–28 Jul	2016	0.00	3	0.56	1,836	0.03	112	0.00	1
	10–31 Jul	2017	0.00	3	0.78	1,636	0.04	80	0.00	1
	9–23 Jul	2018	0.00	0	0.31	229	0.00	1	0.00	0
	<b>Average</b>		0.00	3	0.45	968	0.02	36	0.00	1
Kenai– East Foreland sections “August”	2–6 Aug	2014	0.00	0	0.66	145	0.02	3	0.00	0
	1–12 Aug	2015	0.00	0	0.62	562	0.03	31	0.00	0
	3–14 Aug	2017	0.00	0	0.73	276	0.14	53	0.00	0
		<b>Average</b>		0.00	0	0.67	328	0.06	29	0.00

Note: The 90% credibility intervals of stock compositions and stock specific-harvest estimates can be found in Appendices A1–A4 of this report for 2010–2014, Eskelin and Barclay (2016–2018) for 2015–2017, and Table 3 of this report for 2018.

<sup>a</sup> “Stock comp” means stock composition of large fish relative to the total harvest of all fish (large and small combined).

<sup>b</sup> “Late” describes the portion of the fishery in July.

## LARGE FISH MSA COMPARISONS OF ANNUAL ESTIMATES

There are 8 years of annual stock composition and stock-specific harvest estimates for large Chinook salmon in the ESSN fishery dating back to 2010 (Table 12). Overall, *Kenai River mainstem* fish have composed the greatest proportion of large fish harvest in every year, averaging 0.36 of the total harvest of all fish sizes, ranging from 0.23 (2013) to 0.63 (2017). *Kasilof River mainstem* fish have averaged 0.15 of the total harvest (range: 0.06–0.21). The average harvest of large *Kenai River mainstem* fish was 1,942 fish (range: 679–2,998 fish) with 3 years of lower harvest (679 fish in 2013, 706 fish in 2014, and 555 fish in 2018), and 5 years of higher harvest (2,384 fish in 2010, 2,499 fish in 2011, 2,808 fish in 2015, 2,906 fish in 2016, and 2,988 fish in 2017). The average harvest of large *Kasilof River mainstem* fish was 778 fish (range: 141–1,466 fish).

Table 12.—Large fish ( $\geq 75$  cm METF) stock compositions and stock-specific harvest estimates by year for Chinook salmon harvested in the Eastside set gillnet fishery, Upper Cook Inlet, Alaska, 2010, 2011, and 2013–2018.

Year	Reporting group							
	Kenai River tributaries		Kenai River mainstem		Kasilof River mainstem		Cook Inlet other	
	Stock comp <sup>a</sup>	Stock-specific harvest	Stock comp <sup>a</sup>	Stock-specific harvest	Stock comp <sup>a</sup>	Stock-specific harvest	Stock comp <sup>a</sup>	Stock-specific harvest
2010	0.01	44	0.34	2,384	0.21	1,466	0.01	96
2011	0.00	3	0.32	2,499	0.19	1,445	0.00	10
2013	0.00	1	0.23	679	0.09	279	0.00	8
2014	0.00	2	0.31	706	0.19	439	0.00	2
2015	0.00	8	0.36	2,808	0.10	764	0.01	48
2016	0.00	14	0.43	2,906	0.15	1,039	0.01	34
2017	0.01	29	0.63	2,998	0.15	730	0.01	44
2018 <sup>b</sup>	0.01	16	0.24	555	0.06	141	0.00	10
Average	0.00	15	0.36	1,942	0.15	788	0.01	31

Note: The 90% credibility intervals of stock compositions and stock specific-harvest estimates can be found in Appendices A1–A4 of this report for 2010–2014, Eskelin and Barclay (2016–2018) for 2015–2017, and Table 3 of this report for 2018.

<sup>a</sup> “Stock comp” means stock composition of large fish relative to the total harvest of all fish (large and small combined).

<sup>b</sup> Stock compositions and stock-specific harvest estimates for 2018 do not include large Chinook salmon harvested in the Kasilof River special harvest area.

## STOCK COMPOSITION OF LARGE FISH HARVEST RELATIVE TO TOTAL LARGE FISH HARVEST

Large *Kenai River mainstem* fish have composed on average 0.70 of the total large fish harvest by year, ranging from 0.60 in 2010 to 0.79 in 2017 (Table 13). In contrast, large *Kasilof River mainstem* fish have composed on average 0.28 of the total large fish harvest by year, ranging from 0.19 in 2017 to 0.38 in 2014. Large *Kenai River tributaries* and *Cook Inlet other* fish have been 0.02 or less of the total large fish harvest every year.