

Copper River Chinook Salmon Monitoring Program
 2021 Summary Report
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Table 1. Copper River Chinook salmon run size, abundance, harvest, and spawning escapement.

Year	Returning Run Size Estimate	Copper River Delta Harvest (commercial, subsistence)	In-river Abundance Estimate	Standard Error (SE) of Abundance	In-river Harvest (subsistence, sport, personal use)	Spawning Escapement Estimate
2003	92,485	47,721	44,764	12,506	10,721	34,043
2004	81,098	40,534	40,564	4,650	9,919	30,645
2005	67,117	36,784	30,333	1,529	8,805	21,528
2006	100,656	32,867	67,789	4,779	9,335	58,454
2007	88,787	42,438	46,349	3,283	11,784	34,565
2008	54,417	13,074	41,343	2,166	8,858	32,485
2009	43,887	11,486	32,401	2,365	4,620	27,781
2010	33,150	10,827	22,323	2,492	5,552	16,771
2011	53,883	19,994	33,889	3,329	5,896	27,993
2012	44,306	12,854	31,452	5,242	3,541	27,911
2013	42,825	10,244	32,581	4,425	3,854	28,727
2014	35,286	11,128	24,158	2,100	3,449	20,709
2015	56,124	23,818	32,306	3,977	5,699	26,607
2016	29,157	13,148	16,009	1,193	3,524	12,485
2017	56,081	15,356	40,725	4,187	7,070	33,655
2018	61,583	9,059	52,524	4,034	10,322	42,202
2019	64,412	20,698	43,714	3,143	8,636	35,078
2020	33,055	6,762	26,293	2,863	*4,693	*21,600
2021	*28,611	*6,955	21,656	1,919	n/a	n/a
Copper River Sustainable fisheries Escapement Goal (SEG) = 21,000-31,000 Chinook salmon						
* Based on preliminary data only						

2003-2021 Inriver Abundance Estimate, Data Collection, Data QC and Data Analyses are conducted by Native Village of Eyak Department of the Environment and Natural Resources (NVE-DENR) and LGL Alaska Environmental Research Associates, LLC. Harvest data is obtained by the Wrangell St. Elias National Park Service (Federal Subsistence) and Alaska Department of Fish and Game (Commercial, State Subsistence, Personal Use, and Sport Fishing) through harvest permit recording and mail out harvest surveys.

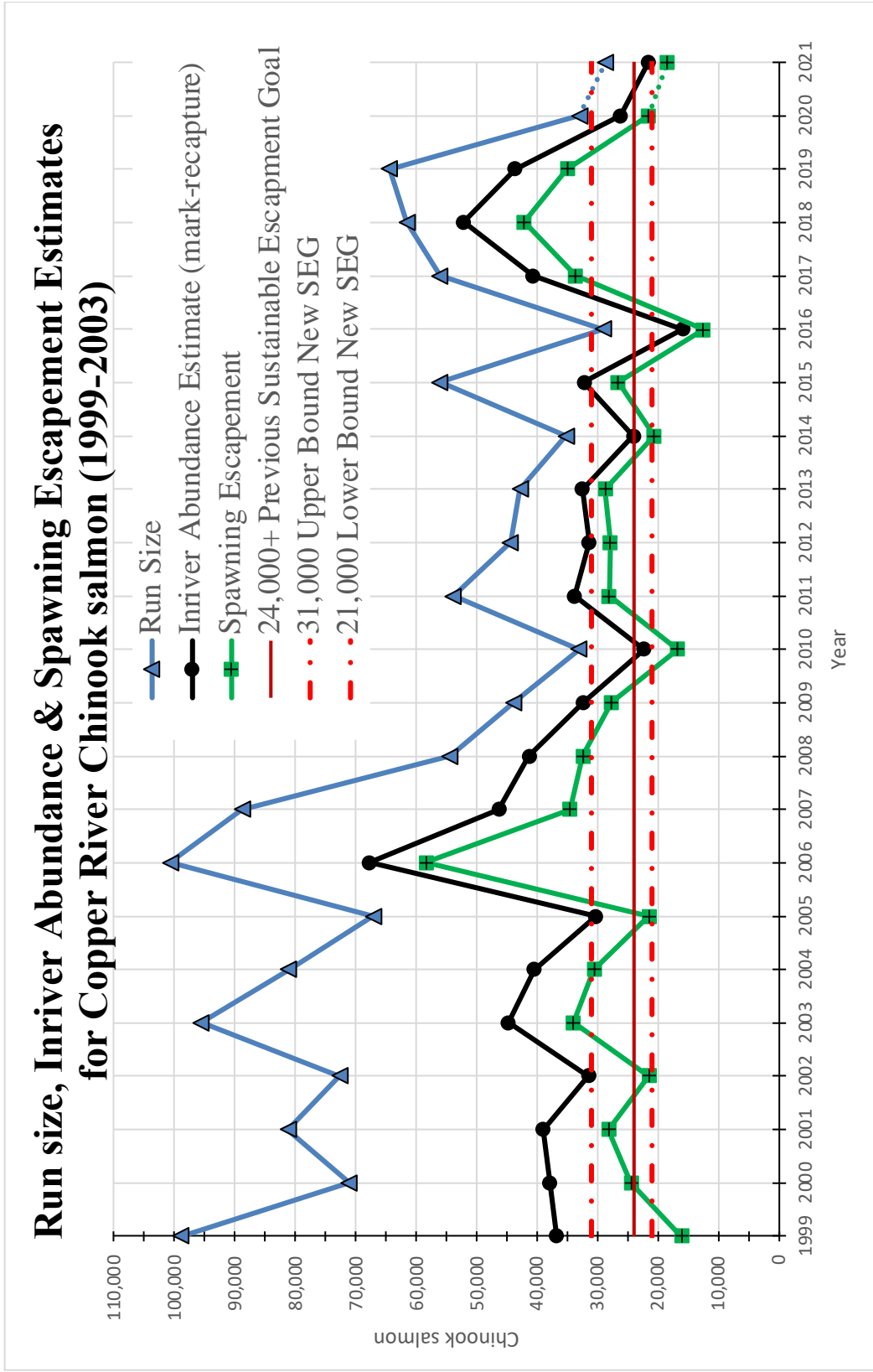


Figure 1. Estimates of Run Size, Inriver Abundance, and Spawning Escapement of Copper River Chinook salmon; 1999-2002 ADF&G Mark-recapture data; 2003-2021 NVE Mark-recapture data; 1999-2021 harvest data from NPS & ADF&G. (a, b, c) 2020 & 2021 spawning escapement is based on available preliminary data and does not include sport fish harvest as mail out harvest surveys are currently being assessed.

Table 2. NVE Copper River Chinook salmon mark recapture project results summary 2003-2021.

Year	Period (m/d)		Length (mm FL)	Marked (M)	Examined (c)	Recaptured (r)	Abundance (N)	Standard Error (SE)	Lower 95% CL	Upper 95% CI	CV	Mark Rate
	From	To										
2003	5/17	7/1	810-1,070	1,723	1,630	97	44,764	12,506	20,490	69,040	27.9%	6.0%
2004	5/22	6/22	> 600	2,477	3,101	185	40,564	4,650	31,450	49,677	11.5%	6.0%
2005	5/9	7/14	> 600	3,379	3,150	315	30,333	1,529	27,336	33,330	5.0%	10.0%
2006	5/21	7/31	> 500	4,035	5,224	377	67,789	4,779	58,422	77,157	7.0%	7.2%
2007	5/18	8/6	> 500	4,456	4,192	459	46,349	3,283	39,914	52,784	7.1%	10.9%
2008	5/19	8/4	> 500	3,931	3,509	342	41,343	2,166	37,098	45,588	5.2%	9.7%
2009	5/13	8/2	> 500	2,484	2,224	171	32,401	2,365	27,766	37,036	7.3%	7.7%
2010	5/15	7/5	> 500	1,745	894	69	22,323	2,492	17,438	27,207	11.2%	7.7%
2011	5/15	7/9	> 500	2,135	2,832	178	33,889	3,329	27,364	40,415	9.8%	6.3%
2012	5/20	7/7	> 500	2,570	1,816	150	31,452	5,242	21,179	41,726	16.7%	8.3%
2013	6/5	7/9	> 500	1,029	1,549	48	32,581	4,425	23,907	41,254	13.6%	3.1%
2014	5/14	7/9	> 500	1,871	2,507	177	24,158	2,100	20,043	28,273	8.7%	7.1%
2015	5/15	7/10	> 500	2,504	2,082	127	32,306	3,977	24,511	40,101	12.3%	6.1%
2016	5/9	7/10	> 500	2,404	1,248	171	16,009	1,193	13,671	18,347	7.5%	13.7%
2017	5/15	7/11	> 500	3,819	1,645	180	40,725	4,187	32,520	48,931	10.3%	10.9%
2018	5/19	7/8	> 500	5,218	4,789	513	52,524	3,935	44,811	60,236	7.5%	10.7%
2019	5/12	7/2	> 500	4,685	2,646	297	43,714	3,143	37,553	49,875	7.2%	11.2%
2020	5/10	7/13	> 500	2,337	1,182	116	26,293	2,863	20,680	31,905	10.9%	9.8%
2021	5/16	7/17	> 500	1,961	1,373	116	21,656	1,919	17,894	25,417	8.9%	8.4%

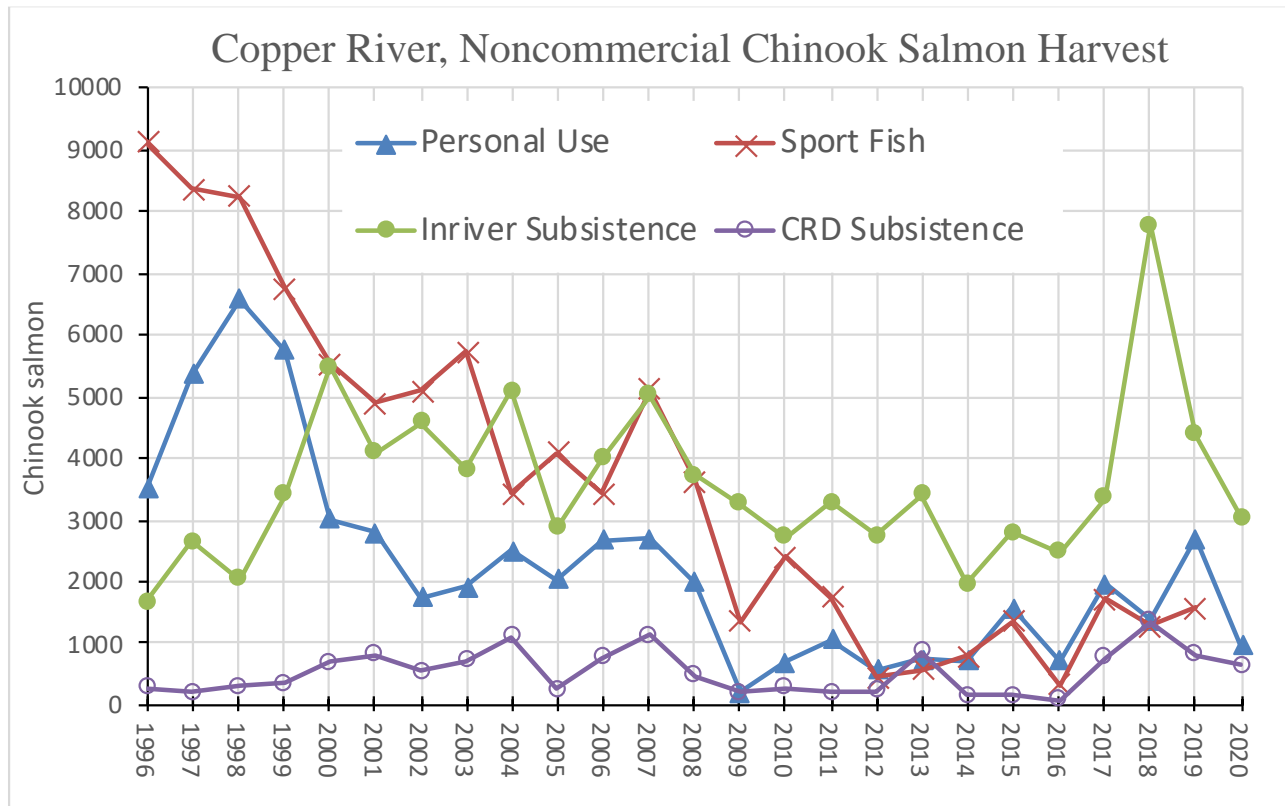


Figure 2. In-river harvest of Copper River Chinook salmon, 1996-2020. (c)

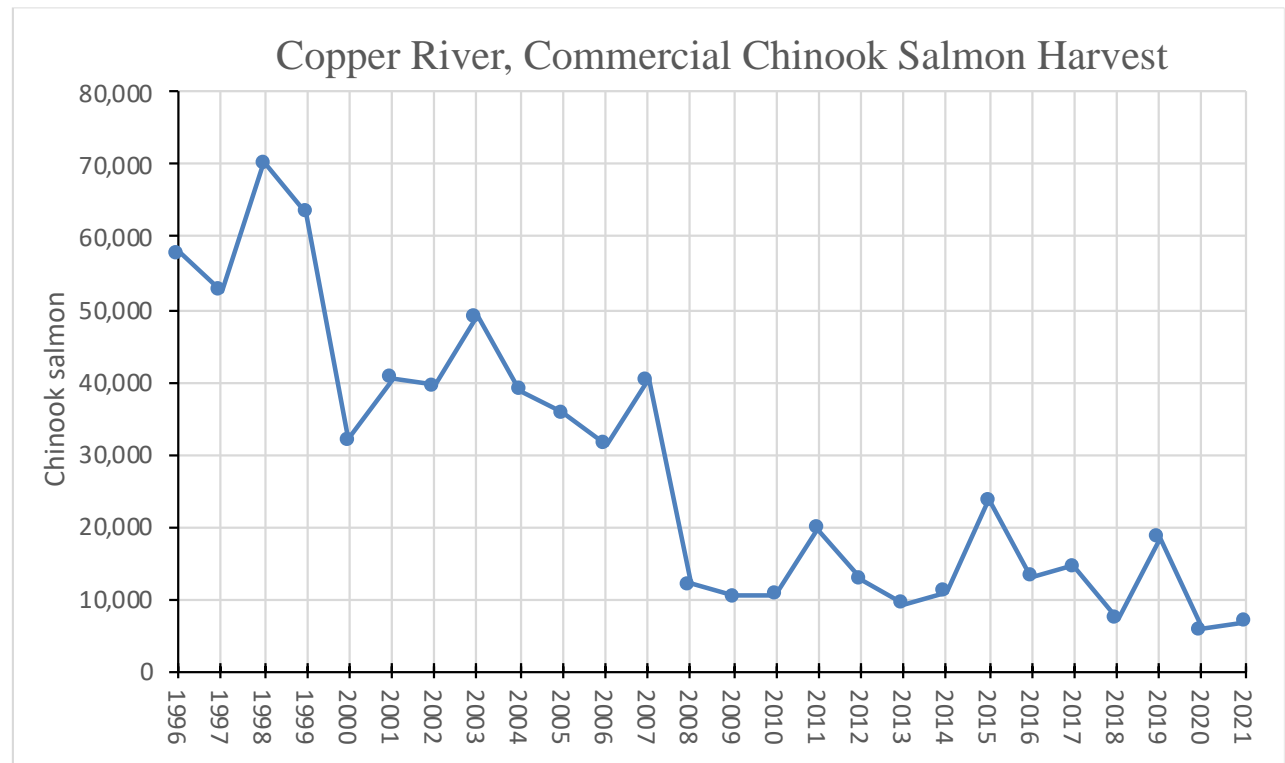


Figure 3. Commercial harvest of Copper River Chinook salmon, 1996-2021. (c)*2021-preliminary

Data source (Tables and Figures):

Botz, J., C.W. Russell, J. Morella, and S. Haught. 2021. 2020 Prince William Sound area finfish management report. Alaska Department of Fish and Game, Fishery Management Report No. 21-18, Anchorage.

Piche, M.J., J.C. Whissel, and J.J. Smith. 2021. Estimating the in-river abundance of Copper River Chinook salmon, 2020 Annual Report. U.S. Fish and Wildlife Service - Office of Subsistence Management, Fisheries Resource Monitoring Program (Study No. 18-504), Anchorage, Alaska.

Somerville, M.A. and T.R. Hansen 2021. Fishery management report for the recreational fisheries of the Upper Copper/Upper Susitna River management area, 2019. Alaska Department of Fish and Game, Fishery Management Report No. 21-07, Anchorage.

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