

Division of Commercial Fisheries
Sam Rabung, Director

Nome Office
 PO Box 1148
 Nome, AK 99762-1148



Alaska Department of Fish and Game
Doug Vincent-Lang, Commissioner

PO Box 115526
 Juneau, AK 99811-5526
www.adfg.alaska.gov

Advisory Announcement
For Immediate Release: October 27,
2022

CONTACT: Jim Menard or Kevin Clark
Norton Sound Area Manager & Asst. Area Manager

(907) 443-5167 or (800) 560-2271

2022 NORTON SOUND SALMON SEASON SUMMARY

COMMERCIAL SALMON FISHERY

Chum and coho salmon runs were again well below the runs during the 2010s but were better than last year, while the king salmon run was poorer than last year. The pink salmon run was average for an even-numbered year and well below the record runs of the last three even-numbered years. The chum salmon harvest was over four times higher than last year and the coho salmon harvest was nearly double last year but both harvests were well below the recent 5-year average harvest when there were record coho salmon harvests and the chum salmon harvests were the best in 30 years. Although the pink salmon run was better than last year's odd-numbered year run there was limited buyer interest and capacity that resulted in less than one-third of last year's harvest.

Table 1 lists the Norton Sound salmon current year and historical commercial salmon harvests. The combined commercial harvest of all salmon species was 130,207 fish and was the second lowest in the last decade. Weaker runs of chum and coho salmon in recent years, combined with limited buyer interest in pink salmon resulted in a lower salmon harvest. There were 108 commercial permit holders that fished in 2022, well below the recent 5-year (138) average. The 2022 fishery value to the permit holders of \$465,972 was less than a quarter of the value of the fishery in the previous 5 years, but slightly higher than last year. This year's salmon harvest was less half of last year's harvest but higher value, because of the greater numbers of chum and coho salmon in the harvest with a higher value than pink salmon. This summary should be considered preliminary and will be updated with additions and corrections in subsequent reports.

Table 2 lists the salmon harvests by species, number, and weight in each subdistrict in 2022. This year the coho salmon had an average weight of 5.7 pounds, the same weight as last two years. Coho salmon average weight has continued to decline since the previous record low average weight of 6.4 pounds in 2019. Chum salmon average weight was 6.1 pounds; the second lowest weight on record. Last year's record low weight of 5.5 pounds for chum salmon was thought to be the result of only one directed chum salmon fishing period in July with mesh size restricted to 6 inches or smaller and over 30 pink salmon fishing periods in July with mesh size restricted to 4 ½ inches or smaller resulting in most of the chum salmon harvest to occur during the pink salmon fishing periods in 2021. Before last year the record low chum salmon weight was 6.4 pounds in 1969.

The coho salmon catch of 13,464 fish, although nearly double last year's catch was only 11% of the recent 5-year (122,724) average (Table 3). The coho salmon catch was the third lowest since 2002 (1,759) and the fourth lowest in over 40 years. The chum salmon catch was 31,249 fish and was the 12th highest catch in the 2000s but only one-quarter of the recent 5-year (118,262) average.

Only one salmon buyer operated in Norton Sound this year, compared to two buyers last year. The Unalakleet fish plant operated by Norton Sound Seafood Products (NSSP) was the buyer's base of commercial salmon fisheries operations. NSSP also processed some of the commercial catch at the NSSP plant in Nome and had a processing vessel during the salmon fishery in July.

Prices paid per pound in 2022 were \$2.40 for sockeye salmon, \$2.20 for coho salmon, \$0.95 for chum salmon, and \$0.35 for pink salmon. The sockeye, chum, and coho salmon prices were the same as 2021 and the pink salmon price decreased \$0.05 per pound from 2021.

SUBSISTENCE SALMON FISHERY

Subsistence salmon fishers in the Port Clarence District and Subdistricts 1–3 (Nome, Golovin, and Elim) are required to possess a subsistence permit for each household that fishes in these locations. The permits identify the type of gear used and the bag limit and are specific to each body of water. On each permit, the permit holder records the catch in numbers of fish and by species for each day fished. Subsistence permit applicants could apply online and print their permits, receive one at the Nome office, or call the Nome office to request a permit be mailed.

The only places where there are limits on subsistence salmon harvest are in the Nome Subdistrict, and Pilgrim River and Salmon Lake in the Port Clarence District. Subsistence permits are important to management because they identify participants and harvests, but the actual catch information cannot be compiled until well after the season when the permits are returned. In southern Norton Sound, villages are surveyed to estimate the subsistence harvest and likewise this information is not available until well after the season.

SEASON SUMMARY BY SUBDISTRICT

Nome - Subdistrict 1

There were 7 commercial fishing periods this year and 9 permit holders fished, compared to 7 permit holders that fished in 2021, 2019, and 2018. All fishing periods were directed at chum or coho salmon with gillnets restricted to 6 inches or smaller mesh size. Catches were better than last year, but well below previous years. The commercial harvest was 136 sockeye, 3,966 chum, 25 pink and 604 coho salmon (Table 2).

Except for last year all salmon runs in 2022 were below recent years that had numerous record harvests. The pink salmon run was average for an even-numbered year and well below the record runs in 2016, 2018, and 2020. Sockeye, chum, and coho salmon runs although better than 2021 were below average when compared to recent years (Table 3).

The chum salmon escapement goal ranges at Eldorado River (4,400–14,200), Nome River (1,600–5,300) and Snake River (2,000–4,200) were reached (Table 4). Both Nome River and Snake River weirs flooded out in late August, and coho salmon passages had been below average at that time. The pink salmon passage of 50,492 fish at Nome River by late July easily exceeded the even-numbered year escapement goal of 13,000 fish.

Golovin - Subdistrict 2

There were 13 commercial fishing periods directed at chum or coho salmon with gillnets restricted to 6 inches or smaller mesh size. The 11 permit holders that fished this year were the same as last year but less than the 17 to 18 permit holders that fished in past years. The commercial harvest was 183 sockeye, 8,701 chum, 1,473 pink, and 965 coho salmon (Table 2). Except for last year, the 2022 harvest of all salmon was below average compared to recent years.

The Niukluk River counting tower was operational for the first time since 2012. Escapement counts were 42 king, 37,009 chum, 305,057 pink, 904 sockeye, and 1,911 coho salmon (Table 4). High water caused counting to end near the historical 75% point of the coho salmon run. An aerial survey of the Niukluk River and Ophir Creek in early September observed 540 coho salmon. The escapement goal range by aerial survey is 750–1,600 coho salmon. The conditions during the survey on Niukluk River were very poor with only 60 coho salmon counted, but there were excellent survey conditions on Ophir Creek and 490 coho salmon were counted.

Elim - Subdistrict 3

There were 15 commercial fishing periods with 2 pink salmon directed fishing periods with gillnets restricted to 4 ½ inches or smaller mesh size. The other 13 periods targeted chum or coho salmon with gillnets restricted to 6 inches or smaller mesh size. The 15 permit holders fishing was less than the 18 permit holders last year and well below the 25 to 34 permit holders that fished from 2014–2020. The commercial harvest was 136 sockeye, 4,030 chum, 2,602 pink and 1,312 coho salmon. This year's catch was much better than last year, except for pink salmon. The limited pink salmon catch was due to a lack of buyer interest.

The Kwiniuk River tower, which began in 1965, is the longest running escapement project in Norton Sound. Escapement counts were 39 king, 9,470 chum, 411,840 pink, 18 sockeye, and 4,437 coho salmon (Table 4). King salmon passage was below the escapement goal of 250 fish for the second year in a row, but chum salmon passage was within the escapement goal range of 9,100–32,600 fish for the first time in three years. The pink salmon escapement goal of 8,400 fish was easily exceeded. The coho salmon escapement goal range of 650–1,300 fish was exceeded when 2,430 fish were observed by aerial survey in mid-September.

Norton Bay - Subdistrict 4

There were 15 commercial fishing periods with 2 pink salmon directed fishing periods with gillnets restricted to 4 ½ inches or smaller mesh size. The other 13 periods were targeted chum or coho salmon with gillnets restricted to 6 inches or smaller mesh size. The commercial harvest was 35 sockeye, 3,477 chum, 2,951 pink and 70 coho salmon. The chum salmon harvest was well above the 61 fish harvested last year, but the pink salmon harvest was well below last year's harvest when there were many more pink salmon directed fishing periods.

There were 8 permit holders that fished, 1 less than last year. The past 5 years there have been 7 to 12 permit holders fishing.

A counting tower on the Ungalik River was operated by Norton Sound Economic Development Corporation (NSEDC) for the fourth year. Escapement counts were 891 king salmon, 16,540 chum salmon, 617,754 pink salmon, 42 sockeye salmon and 5,565 coho salmon (Table 4). The king, chum, and coho salmon counts were the highest in project history. The Inglutalik River tower project, also operated by NSEDC, escapement counts were 180 king, 6,204 chum, 39,510 pink and 303 coho salmon (Table 4).

Shaktoolik and Unalakleet - Subdistricts 5 and 6

Both the Shaktoolik and Unalakleet subdistricts share a common commercial fishing boundary and management actions typically encompass both subdistricts because salmon tend to intermingle and the harvest in one subdistrict affects the movement of fish into the adjacent subdistrict.

In Shaktoolik, there were 17 commercial fishing periods with 8 pink salmon directed fishing periods with gillnets restricted to 4 ½ inches or smaller mesh size. The other 9 periods targeted chum or coho salmon with gillnets restricted to 6 inches or smaller mesh size. In Unalakleet there were 16 commercial fishing periods with 8 pink salmon directed fishing periods with gillnets restricted to 4 ½ inches or smaller mesh size. The other 8 periods targeted chum or coho salmon with gillnets restricted to 6 inches or smaller mesh size.

There were 22 permit holders that fished in the Shaktoolik, 4 less than fished last year. In Unalakleet there were 49 permit holders, 14 less than fished last year. The Shaktoolik commercial harvest was 498 sockeye, 7,491 chum, 33,103 pink and 5,398 coho salmon. The Unalakleet commercial harvest was 255 sockeye, 3,584 chum, 44,107 pink and 5,115 coho salmon (Table 2). This year's catch was much better than last year, except for pink salmon, as the limited pink salmon catch was due to a lack of buyer capacity and interest.

The Shaktoolik chum salmon catch of 7,491 fish was nearly double the last two years and 12th highest in the 2000s but was well below the harvests of the 2010s that ranged from over 20,000 to 42,000 fish. The Unalakleet chum salmon catch of 3,584 fish was nearly double the last two years yet well below the harvests of the 2010s that ranged from over 12,000 to 108,000 fish. This year's Shaktoolik catch of 5,398 coho salmon was over double the catch of the last two years but was the 6th lowest

catch in the 2000s. Likewise the Unalakleet coho salmon harvest of 5,115 coho salmon was over double the last two years and was the 4th harvest catch in the 2000s.

The North River tower became operational on June 18 and the Unalakleet River weir became operational on June 23. The Shaktoolik River counting tower was operational on June 18. Both counting towers were knocked out by high water the second half of July. The Unalakleet River weir escapements of king and chum salmon were the lowest in 12 years of counting and the chum salmon escapements were well below average at all the projects.

The North River king salmon escapement of 1,179 fish was below the low end of the escapement goal range of 1,200–2,600 fish (Table 4) for the third year in a row. The Shaktoolik River escapement of 975 king salmon was like last two years that had counts in the 900s.

The pink salmon escapement at Shaktoolik River of over 1.4 million fish was the third highest in the last nine years of counting. The North River escapement was less than half the Shaktoolik River escapement like the last three even-numbered years. At Unalakleet River weir the picket spacing allows pink salmon to pass through without being counted.

Port Clarence District

Port Clarence District is the salmon district immediately to the northwest of the Norton Sound District and it has the largest run of sockeye salmon in Norton Sound. Sockeye salmon return to Salmon Lake via Pilgrim River which is easily accessible by a road from Nome. Permits have been required for subsistence salmon fishing in Pilgrim River since 1964. Each year, the subsistence catch seasonal limit starts at 25 sockeye salmon and often the department will raise the limit because of runs well above escapement needs. Most of the subsistence harvest of sockeye salmon in the Pilgrim River has been by seine. The 2022 sockeye run was one of the poorest runs historically and all net fishing was closed on July 8 the average historical first quarter point of passage at the Pilgrim weir. Despite the early closure to net fishing the weir count of 1,518 sockeye salmon was the second lowest in the 20-year project history and less than one-quarter of the low end of the escapement goal range of 6,800–36,000 fish.

ESCAPEMENT

Table 4 summarizes escapement assessments for the major index river systems of the Norton Sound and Port Clarence Districts in 2022. Both king salmon escapement goals were not met, and only one of two sockeye salmon goals were achieved, but almost all other salmon species reached their escapement goals.

Department salmon counting projects included Kwiniuk River counting tower and the Nome River weir. The Eldorado, Snake and Pilgrim rivers had weir projects and the Inglutalik, North, Shaktoolik and Ungalik rivers had counting towers operated by NSEDC. Additionally, a joint project between ADF&G and NSEDC with funding provided by USFWS-OSM operated on the Unalakleet River.

There were fewer aerial surveys this year because of limited aircraft availability and high-water conditions.

Table 1. Norton Sound Salmon Catch and Dollar Value, 1961-2022.

Year	Total Catch	Number of Permits	Gross Value of Catch to Permit Holders
1961	101,711	a	a
1962	232,431	a	\$105,800
1963	224,378	a	\$104,000
1964	164,671	a	\$51,000
1965	39,203	a	\$21,483
1966	100,345	a	\$68,000
1967	74,818	a	\$44,038
1968	124,409	a	\$63,700
1969	178,972	a	\$95,297
1970	178,218	a	\$99,019
1971	141,977	a	\$101,000
1972	149,494	a	\$102,225
1973	176,797	a	\$308,740
1974	315,829	a	\$437,127
1975	251,861	a	\$413,255
1976	193,063	a	\$285,283
1977	257,325	164	\$546,010
1978	531,948	176	\$907,330
1979	350,401	175	\$878,792
1980	444,337	159	\$572,125
1981	441,734	167	\$761,658
1982	511,208	164	\$1,069,723
1983	456,420	170	\$946,232
1984	342,159	141	\$738,064
1985	180,200	155	\$818,477
1986	230,400	163	\$546,452
1987	136,283	164	\$517,894
1988	225,132	152	\$760,641
1989	92,811	110	\$319,489
1990	131,665	128	\$474,064
1991	156,789	126	\$413,479
1992	199,933	110	\$448,395
1993	263,670	153	\$368,723
1994	1,108,184	119	\$863,060
1995	181,393	105	\$356,164
1996	571,241	86	\$340,347
1997	79,141	102	\$363,908
1998	641,396	82	\$358,982
1999	23,051	60	\$76,860
2000	217,873	79	\$149,907
2001	30,849	51	\$56,921
2002	2,365	12	\$2,941
2003	20,653	30	\$64,473
2004	48,381	36	\$122,506
2005	89,669	40	\$296,154

-continued-

Table 1–Page 2 of 2.

Year	Total Catch	Number of Permits	Gross Value of Catch to Permit Holders
2006	140,873	61	\$389,707
2007	152,357	71	\$572,195
2008	221,101	91	\$759,451
2009	138,737	88	\$722,167
2010	211,622	115	\$1,220,487
2011	177,167	123	\$1,269,730
2012	305,657	123	\$758,908
2013	181,247	124	\$1,183,236
2014	403,715	128	\$1,915,749
2015	369,720	128	\$1,940,408
2016	366,236	141	\$1,237,229
2017	378,561	139	\$2,788,316
2018	543,714	149	\$4,001,400
2019	381,124	145	\$2,078,034
2020	50,679	124	\$290,302
2021	303,999	131	\$451,815
2022	130,207	108	\$465,972
5-year avg. ^b	331,615	138	1,921,973
10-year avg. ^c	328,465	133	\$1,664,540

^a Information not available.

^b 2017-2021.

^c 2012-2021.

Table 2.—Norton Sound commercial salmon harvest summary by subdistrict, 2022.

		Subdistricts						Total
		1	2	3	4	5	6	
Number of Permit Holders		9	11	15	8	22	49	108
King	Number							0
	Weight (lbs)							
Sockeye	Number	126	183	136	35	498	255	1,233
	Weight (lbs)	774	1,153	692	208	2,778	1,356	6,961
Coho	Number	604	965	1,312	70	5,398	5,115	13,464
	Weight (lbs)	3,799	5,893	6,691	412	30,908	28,426	76,129
Pink	Number	25	1,473	2,602	2,951	33,103	44,107	84,261
	Weight (lbs)	80	4,421	6,605	6,769	114,705	154,222	286,802
Chum	Number	3,966	8,701	4,030	3,477	7,491	3,584	31,249
	Weight (lbs)	25,817	54,116	24,058	21,169	43,969	21,694	190,823
Total ^b	Number	4,721	11,322	8,080	6,533	46,490	53,061	130,207
	Weight (lbs)	30,470	65,583	38,046	28,558	192,360	205,698	560,715

^a Total number of permit holders is not the sum of permit holders in each subdistrict because some permit holders fished in more than one subdistrict.

^b Total does not include 29 kings, 55 sockeyes, 30 cohos, 63 pinks and 102 chums retained for personal use.

Table 3. Norton Sound Salmon Catch, 1961 - 2022.

Year	King	Sockeye	Coho	Pink	Chum	Total
1961	5,300	35	13,807	34,237	48,332	101,711
1962	7,286	18	9,156	33,187	182,784	232,431
1963	6,613	71	16,765	46,180	154,749	224,378
1964	2,018	126	98	13,567	148,862	164,671
1965	128	30	2,030	220	36,795	39,203
1966	1,553	14	5,755	12,778	80,245	100,345
1967	1,804	0	2,379	28,879	41,756	74,818
1968	1,045	0	6,885	71,179	45,300	124,409
1969	2,392	0	6,836	86,949	82,795	178,972
1970	1,853	0	4,423	64,908	107,034	178,218
1971	2,593	0	3,127	4,895	131,362	141,977
1972	2,938	0	454	45,182	100,920	149,494
1973	1,918	0	9,282	46,499	119,098	176,797
1974	2,951	0	2,092	148,519	162,267	315,829
1975	2,393	2	4,593	32,388	212,485	251,861
1976	2,243	11	6,934	87,919	95,956	193,063
1977	4,500	5	3,690	48,675	200,455	257,325
1978	9,819	12	7,335	325,503	189,279	531,948
1979	10,706	57	31,438	167,411	140,789	350,401
1980	6,311	40	29,842	227,352	180,792	444,337
1981	7,929	56	31,562	232,479	169,708	441,734
1982	5,892	10	91,690	230,281	183,335	511,208
1983	10,308	27	49,735	76,913	319,437	456,420
1984	8,455	6	67,875	119,381	146,442	342,159
1985	19,491	166	21,968	3,647	134,928	180,200
1986	6,395	233	35,600	41,260	146,912	230,400
1987	7,080	207	24,279	2,260	102,457	136,283
1988	4,096	1,252	37,214	74,604	107,966	225,132
1989	5,707	265	44,091	123	42,625	92,811
1990	8,895	434	56,712	501	65,123	131,665
1991	6,068	203	63,647	0	86,871	156,789
1992	4,541	296	105,418	6,284	83,394	199,933
1993	8,972	279	43,283	157,574	53,562	263,670
1994	5,285	80	102,140	982,389	18,290	1,108,184
1995	8,860	128	47,863	81,664	42,898	181,393
1996	4,984	1	68,206	487,441	10,609	571,241
1997	12,573	161	32,284	20	34,103	79,141
1998	7,429	7	29,623	588,013	16,324	641,396
1999	2,508	0	12,662	0	7,881	23,051
2000	752	14	44,409	166,548	6,150	217,873
2001	213	44	19,492	0	11,100	30,849
2002	5	1	1,759	0	600	2,365
2003	12	21	17,060	0	3,560	20,653
2004	22	47	42,016	0	6,296	48,381
2005	151	12	85,523	0	3,983	89,669

-continued-

Table 3–Page 2 of 2.

Year	King	Sockeye	Coho	Pink	Chum	Total
2006	20	3	130,808	0	10,042	140,873
2007	19	2	126,136	3,769	22,431	152,357
2008	83	60	120,309	75,525	25,124	221,101
2009	84	126	87,041	17,364	34,122	138,737
2010	140	103	62,079	31,557	117,743	211,622
2011	185	369	58,917	7,141	110,555	177,167
2012	197	134	37,056	205,498	62,772	305,657
2013	151	247	53,802	8,338	118,709	181,247
2014	289	519	112,756	182,406	107,745	403,715
2015	1,288	4,119	153,928	62,888	147,497	369,720
2016	321	2,888	102,890	208,961	51,176	366,236
2017	538	2,975	191,254	20,321	163,473	378,561
2018	906	3,623	260,707	40,449	238,029	543,714
2019	1,371	6,969	139,820	75,929	157,035	381,124
2020	906	1,808	14,650	6,950	26,365	50,679
2021	15	473	7,189	289,912	6,410	303,999
2022	0	1,233	13,464	84,261	31,249	130,207
5-year avg. ^a	747	3,170	122,724	86,712	118,262	331,615

^a 2017-2021

Table 4.—Salmon counts of rivers and associated salmon escapement goal ranges
Norton Sound and Port Clarence Districts, 2022.

Stream	King Salmon			Chum Salmon		
	Weir/ Tower Count	Escapement Goal Range	Aerial Survey Count ^a	Weir/ Tower Count	Escapement Goal Range	Aerial Survey Count ^a
Salmon L.						
Grand Central R.						
Pilgrim R.	31			4,780		
Glacial L.						
Sinuk R.						
Cripple R.						
Penny R.						
Anvil Creek						
Snake R.	4			4,696	2,000 - 4,200	
Nome R.	5			2,428	1,600 - 5,300	
Flambeau R.						
Eldorado R.	5			7,430	4,400 - 14,200	
Bonanza R.						
Solomon R.						
Fish R.						
Boston Cr.						
Niukluk R.						
Ophir Cr.						
Kwiniuk R.	39	250		9,470	9,100 - 32,600	
Tubutulik R.					3,100 - 9,900	
Ungalik R.	891			16,540		
Inglutalik R.	180			6,204		
Shaktoolik R.	975			13,329		
Unalakleet R.	111			12,821		
Old Woman R.						
North R.	1,179	1,200-2,600		1,092		

-Continued-

Table 4.–Page 2 of 2.

Stream	Coho Salmon			Sockeye Salmon			Pink Salmon		
	Weir/ Tower Count	Aerial Survey Count ^a	Escapement Goal Range	Weir/ Tower Count	Escapement Goal Range	Aerial Survey Count ^a	Weir/ Tower Count	Escapement Goal Range	Aerial Survey Count ^a
<u>Salmon L.</u>						1,000			
<u>Grand Central R.</u>						91			
Pilgrim R.	2			1,518	6,800-36,000		6,167		
Glacial L.					800 - 1,600	1,170			
Sinuk R.									
Cripple R.									
Penny R.									
Anvil Creek									
Snake R.	563			496			47,209		
Nome R.	717			17			50,492	3,200	
Flambeau R.									
Eldorado R. ^b				16			39,073		
Bonanza R.									
Solomon R.									
Fish R.									
Boston Cr.									
Niukluk R.		60 ^b	Combined						
Ophir Cr.		490	750-1,600			37			
Kwiniuk R.	4,437	2,430	650-1,300	18			411,840	8,400	
Tubutulik R.									
Ungalik R.	5,565			42			617,754		
Inglutalik R.	303						39,510		
Shaktoolik R.				159			1,404,621		
Unalakleet R.	2,588			381					
Old Woman R.									
North R.	93		550-1,100	66			686,915	25,000	

Note: Data not available for all streams. Sustainable escapement goal (SEG) and optimal escapement goal (OEG) are listed.

^a All aerial surveys are rated fair to good, unless otherwise noted.

^b Murky water creating very poor conditions.