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A Provisional Report on the 2003 Salmon Season

by

The Working Group on Stock Assessment

Submitted to the

NORTH PACIFIC ANADROMOUS FISH COMMISSION

By

CSRS

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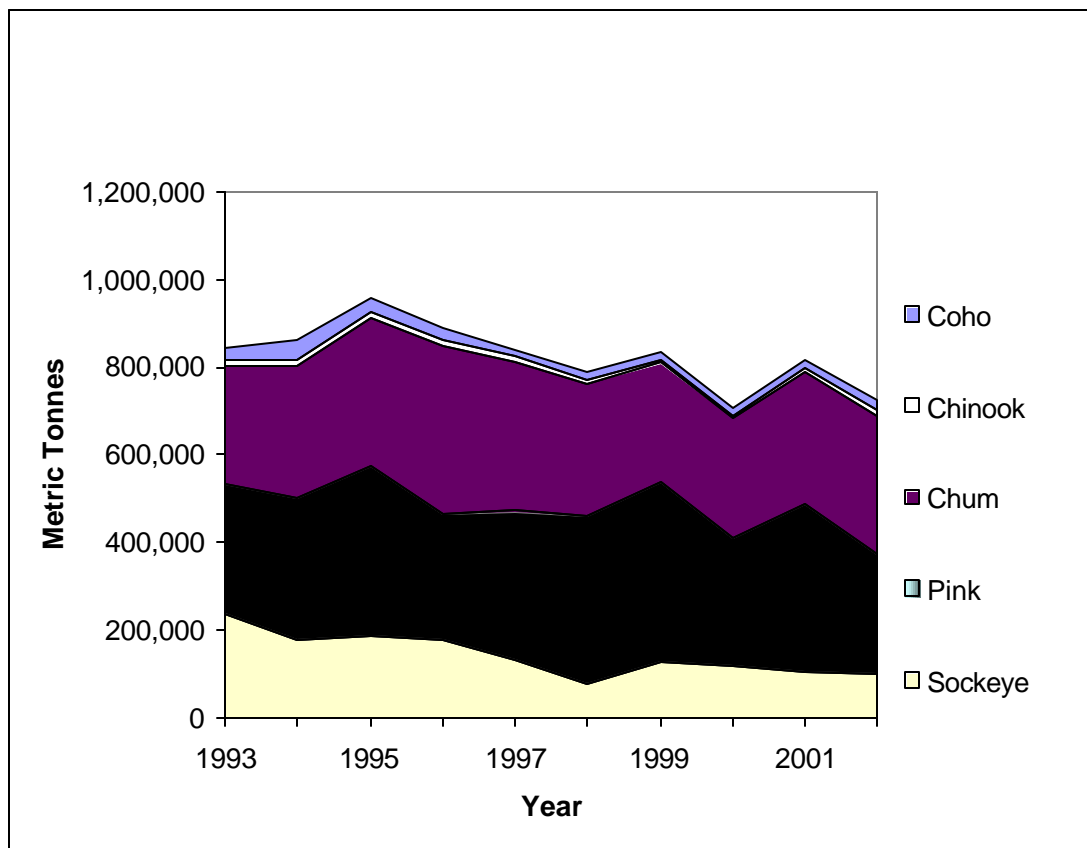
Summary

Canada, Japan, Russia, and United States provided preliminary commercial catch statistics for 2003. Although harvesting is still underway, ~788 thousand tonnes of Pacific salmon have been caught in commercial fisheries in the North Pacific so far this year, a significant increase over last year's estimated catch of ~447 thousand tonnes for a similar time period in 2002. Final reported commercial catch for 2002 was ~726 thousand tonnes, one of the lowest since 1993 (Fig. 1). The largest increases in 2003 were for pink and chum salmon.

Canada reported higher commercial catches in 2003 than for a similar period in 2002, although catches remain well below long-term averages. Many Canadian fisheries were closed or reduced for conservation reasons. Relative to a similar period in 2002, Japanese chum catches increased while pink catches declined somewhat. Alaska reported harvests of about 173 million salmon, an increase from last year's total of 131 million salmon. Salmon catches in Russia were also up, particularly for pink salmon. Relatively modest catches were reported from the American Pacific Northwest, down from 2002. 2003 catch estimates for Korea are not yet available although a summary of Korean hatchery releases, returns to hatchery rivers, and coastal bycatches are provided for chum salmon.

Historical catch statistics from Alaska, Canada, Russia, and Japan are presented in Appendices to put the provisional 2003 catch statistics into context.

Figure 1. Commercial harvests, by species, for Canada, Japan, Russia, and the United States from 1993 to 2002 (round weight in tonnes).



Canada

Conservation remained the primary objective in managing the Pacific salmon resource during 2003. An integrated fisheries management plan contained comprehensive decision guidelines that set out the rationale for management decisions, and described the range of departmental responses to changing in-season information. Commercial harvest in 2003 (to September 1) was 20,528 tonnes (Table 1). Historical catches from 1952 to 2003 are summarized in Appendix Table 1.

Stocks of significant conservation concern in 2003 included Interior Fraser coho salmon and steelhead trout, Sakinaw Lake sockeye, Cultus Lake sockeye, Okanogan sockeye, Nimpkish sockeye, early timed chinook to the Fraser, West Coast of Vancouver Island chinook, Rivers and Smith Inlet sockeye, North Coast chum, and Skeena steelhead. Directed fisheries on these stocks of concern were limited or not permitted, and fisheries targeting other species and stocks were constrained as required to achieve conservation objectives. Of particular concern were coho from the interior Fraser River and sockeye from Cultus and Sakinaw lakes; these populations have been designated as endangered by the Committee on the Status of Endangered Wildlife in Canada.

District	Chinook	Chum	Coho	Pink	Sockeye	Total
North Coast (Areas 1-10)	848	2514	476	11590	1892	17320
South Coast (Areas 11-27)	574	94	0	794	1638	3951
Fraser River (Area 29)	4	0	0	4	102	110
Total	1426	2607	476	12387	3632	20528

Table 1. Preliminary 2003 commercial salmon catch in British Columbia (round weight, tonnes) by species and area. Information derived from sales slips received to September 1, 2003.

Japan

As of October 10, 2003, a total of 166,289 tonnes of chum salmon had been harvested in offshore and coastal seas around Japan (Table 2). A total of 44.2 million chum salmon, including catch and hatchery broodstock, returned to rivers or coastal seas. This total increased from the value of 34.8 million for the same period in 2002. The number of returning adult chum salmon has increased since the 2000 season, while that had been decreasing from the 1996 season to the 2000 season. Historic catch statistics for Japan are supplied for comparison in Appendix Table 2. Chum salmon runs will continue in Hokkaido and Honshu until February.

A total of 19,943 tonnes of pink salmon were harvested this season in offshore and coastal seas as of October 10 (Table 3). The number of pink salmon that returned to rivers and coastal seas has increased to 11.9 million, compared to 13.4 million from the previous year. Pink salmon runs are nearly finished for this season.

Table 2. Preliminary chum salmon catch and hatchery broodstock in Japan for the 2003 season, as of October 10.

		Coastal or offshore catch		Hatchery broodstock (thousands)
		Number (thousands)	Weight (tonnes)	
Hokkaido	Okhotsk Sea Coast	14,470	56,018	888
	Japan Sea Coast	2,347	8,304	267
	Pacific Coast	24,253	96,844	510
Honshu	Japan Sea Coast	10	34	1
	Pacific Coast	1,332	4,777	72
Offshore	Pacific	156	311	-
Total		42,568	166,289	1,738

Table 3. Preliminary pink salmon catch and hatchery broodstock in Japan for the 2003 season as of October 10.

		Coastal or offshore catch		Hatchery
		Number (thousands)	Weight (tonnes)	broodstock (thousands)
Hokkaido	Okhotsk Sea Coast	9,633	14,911	1,059
	Japan Sea Coast	6	9	0
	Pacific Coast	1,034	1,651	118
Offshore	Japan Sea	529	610	-
	Pacific	2,270	2,762	-
Total		13,471	19,943	1,177

United States

Alaska

The very preliminary all-species commercial harvest was 173.2 million fish which was considerably greater than the forecasted harvest of 151 million. The 2003 harvest will be the eight largest in the history of the Alaska salmon harvest. Detailed catch statistics for Alaska are found in Table 4.

In Southeast Alaska, the preliminary total chinook salmon harvest was above last year due to increased abundance of chinook in southeast Alaska. The pink salmon harvest was 52.5 million an above the recent 10 year average. Coho runs were very strong; however harvests of coho salmon were only about half the recent 10-year average. Harvests were constrained due to low fishing effort in response to the low prices paid to fishermen. The hatchery runs of chum salmon were below the levels observed in recent years.

Sockeye runs to the Copper River and to Prince William Sound were good in 2003 and this year's harvest of sockeye ranks as one of the largest on record. The 2003 Prince William Sound pink salmon catch was 49.5 million the largest on record due to largest hatchery runs on record. Escapements of wild pink salmon were adequate.

Returns of sockeye salmon to Upper Cook Inlet were strong. The sockeye salmon catch of just of over 3.5 million was about 1.1 million above the forecast. In Lower Cook Inlet, sockeye runs were strong with a record harvest of 635 thousand. Pink and chum salmon runs in Lower Cook Inlet were also very good.

The 2003 Alaska Peninsula Area sockeye salmon harvest of approximately 2.52 million fish is about half of the previous 10-year average of 4.72 million fish. The 2003 pink salmon harvest of 4.2 million fish was below the previous 10-year average. The pink salmon escapements in the Alaska Peninsula was the second highest on record, and the sockeye escapement in the North Alaska Peninsula area was the largest since 1981

The 2003 Kodiak Area sockeye salmon harvest of approximately 4.1 million fish was higher than the recent 10-year average. The 2003 preliminary pink salmon harvest of 14.1 million fish.

The 2003 Chignik Area sockeye salmon harvest was 1.1 million was substantially lower than the 10-year average.

The Bristol Bay inshore run of sockeye salmon of approximately 26.5 million fish was the seventh smallest inshore run in 20 years, and it was 28% below the 1983 - 2002 average of 36 million. It was approximately 10% above the preseason forecast of 24 million fish. The Nushagak, Naknek-Kvichak, and Togiak Districts all had sockeye runs that were higher than preseason forecasts, while the Egegik sockeye run was 47% below the preseason forecast and the Ugashik District was 20% below the forecast. The commercial harvest of 14.9 million sockeye salmon was 11% below the 16.8 million forecast. A total escapement of approximately 11.6 million sockeye salmon was achieved.

The Bristol Bay commercial harvest of approximately 44 thousand chinook salmon was the eighth smallest catch in the last 20 years and 43% below the 20-year average of 77 thousand. It was, however; the largest harvest in five years. The chum salmon harvest totalled approximately 807 thousand fish, which is 20% below the 20-year average of 1 million. The low pink salmon harvest of about 178 fish is what is expected for odd-numbered year returns. The coho salmon harvest of approximately 43 thousand fish was well below the 20-year average of 137 thousand.

In the Kuskokwim River the coho harvest was 347 thousand.

A limited 2003 Kotzebue Sound commercial salmon season ended with the second lowest harvest and participation on record because for the second year in row the fishery lacked a major buyer. The commercial harvest consisted of 24,870 chum salmon

In the Yukon River, the chinook salmon and fall chum salmon runs were stronger than they have been in recent years. The runs were sufficient to support commercial fisheries with the chinook catch 40.4 thousand and fall chum catch 11 thousand. Subsistence fishing opportunity throughout the drainage was not reduced and subsistence harvest levels are anticipated to be near average.

The 2003 Norton Sound commercial salmon fishery was another poor season. There were no chinook or chum salmon directed fishing periods because of weak runs. The coho run was average in eastern Norton Sound, but very poor in northern Norton Sound. The combined commercial harvest of all salmon species and the number of commercial permits fished was the second lowest on record.

2003 Alaska Commercial Salmon Harvest

Source: ADF&G 10/22/2003

PRELIMINARY DATA: 2003 Salmon Season

Area	Species	Harvest of Salmon	
		Number of Fish	Tonnes
SOUTHEAST	CHINOOK	401,000	2,810
	SOCKEYE	1,448,000	4,072
	COHO	2,381,000	8,046
	PINK	52,471,000	83,540
	CHUM	9,098,000	29,631
	totals	65,799,000	128,100
PRINCE WILLIAM SOUND	CHINOOK	49,281	492
	SOCKEYE	2,798,933	7,694
	COHO	490,044	1,838
	PINK	49,460,512	78,972
	CHUM	3,718,371	11,874
	totals	56,517,141	100,869
COOK INLET	CHINOOK	19,000	153
	SOCKEYE	4,168,000	11,533
	COHO	114,000	341
	PINK	909,000	1,361
	CHUM	157,000	520
	totals	5,367,000	13,908
BRISTOL BAY	CHINOOK	44,361	322
	SOCKEYE	14,870,649	42,563
	COHO	42,932	134
	PINK	178	0
	CHUM	807,240	2,384
	totals	15,765,360	45,403
KODIAK	CHINOOK	18,557	86
	SOCKEYE	4,049,797	9,865
	COHO	360,235	1,232
	PINK	14,117,349	22,669
	CHUM	1,151,912	3,741
	totals	19,697,850	37,593

Table 4. Very preliminary Pacific salmon catch statistics for Alaska as of October 22, 2003. Note that some harvest as of that date are not included.

Table 4 (cont.). Very preliminary Pacific salmon catch statistics for Alaska as of October 22, 2003. Note that some harvest as of that date are not included.

CHIGNIK	CHINOOK	3,057	20
	SOCKEYE	1,092,202	3,235
	COHO	103,854	389
	PINK	502,068	886
	CHUM	63,907	203
	totals	1,765,088	4,733
AK PEN/ALEUTIAN IS.	CHINOOK	5,695	40
	SOCKEYE	2,526,696	6,877
	COHO	183,815	625
	PINK	4,276,898	7,372
	CHUM	676,332	2,086
	totals	7,669,436	17,000
KUSKOKWIM	CHINOOK	16,014	99
	SOCKEYE	63,647	210
	COHO	347,125	1,253
	PINK	0	0
	CHUM	36,225	113
	totals	463,011	1,675
YUKON	CHINOOK	40,437	394
	SOCKEYE	0	0
	COHO	25,243	75
	PINK	0	0
	CHUM	21,683	68
	totals	87,363	537
NORTON SOUND	CHINOOK	12	0
	SOCKEYE	15	0
	COHO	16,925	63
	PINK	0	0
	CHUM	3,551	11
	totals	20,503	74
KOTZEBUE	CHINOOK	0	0
	SOCKEYE	0	0
	COHO	0	0
	PINK	0	0
	CHUM	24,870	96
	totals	24,870	96
ALASKA TOTALS	CHINOOK	597,414	4,417
	SOCKEYE	31,017,939	86,047
	COHO	4,065,173	13,998
	PINK	121,737,005	194,800
	CHUM	15,759,091	50,726
	totals	173,176,622	349,987

Figures may not exactly total due to rounding and database used to calculate figures.

Pacific Northwest United States

Preliminary estimates of commercial landings of salmon caught in California, Oregon, and Washington are provided in Table 5. Estimates are given for 2002 as well as 2003 since the former were not included in last years report.

Table 5. Commercial landings of salmon in California, Oregon, and Washington during 2002 and 2003 (metric tons).

	2002	2003 ¹
chinook	7,208	5,221
chum	8,845	87
coho	2,397	611
pink	1	69
sockeye	1,406	280
Total	19,857	6,268

¹2003 estimates until 17 October.

Russia

Preliminary catch data for Russia for 2003 (Table 6) represent increased catches of pink, chum, and coho compared to 2002. The catch of pink salmon in 2003 (~180,056 tonnes) was particularly notable compared to an estimated catch of 107,657 tonnes for a similar period in 2002. The total catch for all species was 224,874 tonnes compared to 155,863 tonnes in 2002, and is regarded as “high”.

The major pink stocks harvested were from southeastern Sakhalin and northeastern Kamchatka. The catches of chum salmon of 25,535 tonnes is 5,000-6,000 more than in recent years. The most significant contribution in this increase was of Kamchatka and northern coast of Okhotsk Sea stocks. Besides this the efficiency of Sakhalin hatcheries was increasing during last years. The total catch provided by those hatcheries was about 4000 ton.

In last two years there has been an unexpected and dramatic decline of chum salmon from the Anadyr River. Usually this population provided the catch about 2,000-3,000 ton, sometimes up to 5,000 ton. In 2002 the total catch of chum in this river was 72 ton, in 2003 – 349.5 ton. Determining the cause of this event is one of the objectives of Russian research scientists.

The abundance of sockeye salmon was high in 2003. The total catch was 17,692 ton, including west Kamchatka’s catch of 12,743 ton, and east Kamchatka’s catch – 4610 ton.

The abundance of coho and chinook salmon in Russian rivers was extremely low. The catches were – coho – 1,366 ton, chinook – 225 ton (Table 6).

Table 6. Preliminary total salmon catch in Russia (Far East) by species, region and subregion, in tonnes, 2003.

Region, subregion	Pink	Chum	Sockeye	Coho	Chinook	Total
Western Bering Sea	17.4	349.5	112.8			479.7
Eastern Kamchatka	56875.6	4265.9	4609.5	765.5	189.8	66706.3
Kuriles	18610.0	1963.4	153.7	48.7	1.8	20777.6
The Sea of Okhotsk						
Western Kamchatka	299.8	3695.3	12743.1	302.4	33.7	17074.3
Continental coast	15418.3	6558.8	73.2	247.3		22297.6
Sakhalin coast	87544.6	3773.3				91317.9
Amur Basin	827.2	2610.2				3437.4
The Sea of Japan						
Primor'e	31.0	2.0		1.7		34.7
Southwestern Sakhalin	432.0	2316.2				2748.2
Total	180055.9	25534.6	17692.3	1365.6	225.3	224873.7

Korea

Catch data for Korea are not available at this time. However, Appendix Table 5 provides historical estimates of juvenile chum released and adult chum returning to Korea.

Appendix Table 1. Commercial salmon catches in Canada (pieces). (Estimates for 2003 not complete).

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1952	904,000	4,838,000	2,719,000	11,217,000	2,479,000	22,157,000
1953	1,017,000	5,914,000	2,871,000	11,103,000	4,672,000	25,577,000
1954	876,000	6,702,000	2,442,000	5,439,000	5,838,000	21,297,000
1955	876,000	2,835,000	2,976,000	11,240,000	1,569,000	19,496,000
1956	982,000	3,257,000	3,041,000	7,352,000	2,458,000	17,090,000
1957	948,000	3,036,000	3,137,000	11,310,000	2,412,000	20,843,000
1958	1,074,000	12,045,000	2,989,000	6,908,000	3,192,000	26,208,000
1959	956,000	3,260,000	2,897,000	6,776,000	2,015,000	15,904,000
1960	753,000	2,858,000	2,030,000	4,098,000	1,837,000	11,576,000
1961	700,000	4,564,000	3,299,000	8,305,000	1,218,000	18,086,000
1962	720,000	3,499,000	3,623,000	23,429,000	1,496,000	32,767,000
1963	800,000	2,086,000	3,418,000	12,200,000	1,463,000	19,967,000
1964	961,000	3,619,000	4,147,000	9,628,000	2,253,000	20,608,000
1965	981,000	3,019,000	4,437,000	5,108,000	633,000	14,178,000
1966	1,163,000	4,020,000	5,402,000	17,261,000	1,311,000	29,157,000
1967	1,099,000	6,748,000	3,151,000	9,712,000	1,130,000	21,840,000
1968	1,054,000	6,346,000	5,147,000	20,247,000	3,095,000	35,889,000
1969	1,076,000	4,267,000	2,341,000	2,564,000	1,310,000	11,558,000
1970	1,143,000	4,067,000	3,347,000	13,580,000	3,679,000	25,816,000
1971	1,518,000	6,304,000	4,608,000	8,445,000	1,263,000	22,138,000
1972	1,508,000	3,561,000	3,208,000	13,995,000	6,031,000	28,303,000
1973	1,372,000	7,583,000	3,338,000	6,493,000	6,225,000	25,011,000
1974	1,422,000	7,222,000	3,511,000	7,372,000	2,202,000	21,729,000
1975	1,380,000	2,270,000	2,225,000	4,620,000	1,147,000	11,642,000
1976	1,499,000	4,813,000	3,485,000	10,344,000	1,901,000	22,042,000
1977	1,470,000	6,346,000	3,265,000	10,307,000	1,088,000	22,476,000
1978	1,352,000	7,222,000	3,350,000	10,748,000	2,979,000	25,651,000
1979	1,328,000	5,669,000	3,630,000	11,807,000	851,000	23,285,000
1980	1,269,000	3,186,000	3,415,000	8,364,000	3,414,000	19,648,000
1981	1,133,000	8,413,000	2,815,000	18,072,000	1,116,000	31,549,000
1982	1,234,000	10,057,000	3,171,000	2,675,000	2,966,000	20,103,000
1983	950,000	5,500,000	4,125,000	23,944,000	999,000	35,518,000
1984	1,010,000	5,065,000	3,599,000	7,491,000	1,843,000	19,008,000
1985	869,000	12,217,000	2,946,000	20,224,000	5,470,000	41,726,000

Appendix Table 1. Commercial salmon catches in Canada (pieces) continued.

1986	813,000	10,548,000	4,904,000	17,977,000	5,580,000	39,822,000
1987	766,000	5,373,000	3,348,000	13,349,000	2,267,000	25,103,000
1988	723,000	4,449,000	2,739,000	23,122,000	6,167,000	37,200,000
1989	648,000	13,747,000	3,425,000	17,050,000	1,809,000	36,679,000
1990	664,000	14,152,000	3,865,000	17,223,000	3,175,000	39,079,000
1991	639,000	10,336,000	3,506,000	23,977,000	2,349,000	40,807,000
1992	679,000	8,170,000	2,956,000	10,263,000	4,006,000	26,074,000
1993	619,000	18,060,000	1,889,000	10,127,000	4,221,000	34,916,000
1994	428,000	11,504,000	2,548,000	2,207,000	4,322,000	21,009,000
1995	193,000	4,412,000	1,871,000	11,727,000	2,475,000	20,678,000
1996	50,000	5,868,000	1,406,000	5,905,000	1,374,000	14,603,000
1997	207,000	10,610,000	227,000	6,481,000	1,890,000	19,415,000
1998	150,000	1,754,000	1,000	2,408,000	4,475,000	8,788,000
1999	104,000	652,000	4,000	6,065,000	946,000	7,771,000
2000	68,000	3,408,000	4,000	4,432,000	552,000	8,464,000
2001	96,000	2,534,000	14,000	6,126,000	1,149,000	9,919,000
2002	235,000	3,596,000	117,000	5,310,000	2,464,000	11,722,000
2003	197,876	1,380,770	125,868	8,797,267	498,085	10,999,865

Appendix Table 2. Historic commercial salmon catches (tonne) in Japan. 2003 estimates are very preliminary. NB The 2001 catch estimate for coastal chum salmon has been corrected from earlier publications.

Ref	Sockeye					Pink					Chum					Coho					Chinook					Masu			
	Mothership	Pacific landbased	Japan Sea	Coastal	Freshwater	Mothership	Pacific landbased or Offshore	Japan Sea	Coastal	Freshwater	Mothership	Pacific landbased or Offshore	Japan Sea	Coastal	Freshwater	Mothership	Pacific landbased	Japan Sea	Coastal	Freshwater	Mothership	Pacific landbased	Japan Sea	Coastal	Freshwater	Coastal and Offshore	Freshwater		
1976	1, 4	3,943	4,901	-	-	-	8,058	13,044	5,026	2,778	258	17,898	20,067	-	36,763	3,637	1,842	5,849	-	1	-	677	881	-	51	-	3,740	NA	
1977	1, 4	2,651	1,848	-	-	-	10,191	17,978	3,834	2,816	114	10,337	11,223	-	46,828	3,521	170	3,582	-	-	-	217	609	-	88	-	3,741	NA	
1978	1, 4	3,353	1,814	-	0	-	2,232	8,968	4,120	1,832	78	8,067	6,176	-	55,849	3,970	1,443	4,320	-	0	-	304	720	-	51	-	3,543	NA	
1979	1, 4	3,934	1,072	-	0	-	4,192	14,326	3,830	1,448	305	6,327	4,951	-	84,521	6,135	640	2,067	-	0	-	356	752	-	117	-	2,601	NA	
1980	1, 4	4,596	1,125	-	0	-	702	13,870	3,815	1,908	96	6,685	5,562	-	75,342	9,207	1,545	2,159	-	0	-	1,913	508	-	72	-	2,721	NA	
1981	1, 4	3,814	1,287	-	0.5	-	4,930	13,795	3,869	2,747	360	5,237	5,320	-	101,844	8,440	1,186	2,089	-	9	-	278	662	-	245	-	2,566	NA	
1982	1, 4	3,039	1,094	-	0	-	2,214	13,099	3,771	1,501	239	6,858	6,291	-	89,545	9,106	2,957	2,065	-	0.5	-	361	619	-	40	-	2,924	NA	
1983	1, 4	2,992	1,387	-	0	-	5,104	13,995	3,754	1,723	747	6,450	4,838	-	113,894	8,269	598	2,034	-	0	-	270	676	-	50	0	3,262	NA	
1984	1, 4	2,990	376	-	2	-	1,844	10,526	3,501	2,619	317	7,217	4,535	-	115,861	8,639	2,202	1,669	-	0.5	-	269	335	-	59	-	3,277	NA	
1985	1, 4	2,284	267	-	2	-	3,605	12,881	3,975	6,525	317	6,055	2,908	-	159,092	8,639	296	1,467	-	13	-	226	354	-	109	-	3,177	NA	
1986	1, 4	1,545	254	-	1	-	483	7,868	2,549	4,281	516	4,076	1,966	-	142,070	9,410	149	898	-	7	-	215	264	-	153	-	2,863	NA	
1987	1, 4	1,366	263	-	0.5	-	1,258	7,766	2,206	7,047	1,091	4,065	2,058	-	132,943	7,490	77	878	-	25	-	132	263	-	311	-	2,593	NA	
1988	1, 4	478	214	-	2	-	69	6,665	2,179	6,187	716	1,918	1,751	-	145,510	9,979	0.5	555	-	19	-	86	167	-	94	-	1,725	NA	
1989	1, 4	473	189	-	1	-	433	6,649	1,853	7,803	854	1,264	1,661	-	165,761	12,345	4	443	-	9	-	44	184	-	77	-	2,030	NA	
1990	1, 4	423	123	-	0	-	307	4,639	1,420	5,877	549	1,067	1,218	-	205,314	15,284	42	368	-	19	-	82	163	-	50	-	1,924	NA	
1991	1, 4	286	112	-	2	-	425	3,929	1,234	11,863	1,436	696	935	-	184,112	11,839	34	251	-	40	-	45	105	-	141	-	1,996	NA	
1992	1	-	-	-	6	3	-	1,325	1,252	16,006	1,520	-	86	-	137,114	8,630	-	-	-	18	-	-	-	-	-	177	-	1,265	NA
1993	2	-	-	-	20	3	-	2,737	1,207	15,224	828	-	194	-	187,664	12,240	-	-	-	20	-	-	-	-	-	197	-	1,543	17
1994	2	-	-	-	4	1	-	2,979	1,352	23,348	2,379	-	333	-	191,190	16,806	-	-	-	25	-	191,190	16,806	-	177	-	1,694	22	
1995	2	-	-	-	6	2	-	3,290	1,240	16,008	739	-	348	-	230,705	17,736	-	-	-	42	-	-	-	-	69	-	1,403	15	
1996	2	-	-	-	7	1	-	2,906	985	24,668	3,327	-	358	-	265,787	19,502	-	-	-	72	-	-	-	-	89	-	1,677	19	
1997	3	-	-	-	7	0	-	3,145	711	9,184	934	-	355	-	236,993	18,588	-	-	-	101	-	-	-	-	253	-	990	21	
1998	3	-	-	-	5	0	-	3,806	692	17,830	1,961	-	397	-	178,142	15,583	-	-	-	37	-	-	-	-	205	-	1,731	39	
1999	3	-	-	-	3	1	-	3,936	619	10,266	1,117	-	392	-	157,909	12,449	-	-	-	22	-	-	-	-	48	-	1,129	9	
2000	3	-	-	-	3	3.2	-	2,013	725	21,059	2,021	-	320	-	139,608	12,558	-	-	-	6	-	-	-	-	48	-	954	79.7	
2001	3	-	-	-	2	1	-	2,844	355	6,160	648	-	248	-	199,220	12,431	-	-	-	54	-	-	-	-	20	-	777	4.1-	
2002	3	-	-	-	1	0.2	-	2,793	541	19,268	2,256	-	338	-	193,450	16,166	-	-	-	14	-	-	-	-	45	-	1,133	22.3	
2003	-	-	-	-	NA	NA	-	2,762	610	16,571	NA	-	311	-	165,978	NA	-	-	-	NA	-	-	-	-	NA	-	NA	NA	

References: 1 INPFC Statistical Yearbook 1976-1992; 2 NPAFC Statistical Yearbook 1993-1996; 3 NPAFC Doc. 338, 413, 479, 480, 537, 542, 613, 618, 713; 4 FAO yearbook, Fishery statistics, catch and landings 1976-1992. Vol. 42-74.

Appendix Table 3. Historic commercial salmon catches in Alaska, in thousands of fish. 2003 estimates are very preliminary.

Year	Chinook	Sockeye	Coho	Pink	Chum	All
1972	553	6,590	1,831	15,915	7,056	31,950
1973	551	4,490	1,457	9,793	6,007	22,305
1974	557	4,878	1,859	9,852	4,722	21,873
1975	455	7,453	1,014	12,977	4,314	26,217
1976	533	11,783	1,432	24,743	5,916	44,416
1977	621	12,460	1,815	28,581	7,322	50,805
1978	836	18,138	2,820	53,807	6,673	82,281
1979	830	28,723	3,245	50,136	5,829	88,754
1980	676	33,308	3,135	63,282	9,612	110,004
1981	823	36,343	3,527	60,017	12,624	113,325
1982	854	28,832	5,976	64,828	11,090	111,572
1983	814	52,874	3,614	60,337	10,216	127,698
1984	656	38,449	5,312	76,240	13,084	133,637
1985	706	38,983	5,695	90,341	10,554	146,743
1986	617	32,207	6,293	77,289	12,510	128,962
1987	682	35,430	3,493	46,488	10,526	96,554
1988	590	30,038	4,473	50,357	15,101	100,140
1989	576	44,117	4,649	96,827	7,895	154,100
1990	669	52,772	5,476	88,242	8,008	155,165
1991	613	44,646	6,153	128,336	9,769	189,517
1992	606	58,735	7,095	60,597	9,130	136,163
1993	747	64,717	6,050	109,631	11,842	192,987
1994	650	52,400	9,480	117,000	16,500	196,030
1995	662	63,532	6,471	128,333	18,796	217,794
1996	503	49,749	5,847	97,899	21,236	175,234
1997	659	31,087	3,190	71,958	16,244	123,138
1998	380	22,437	4,238	103,433	18,400	148,887
1999	430	44,200	4,600	146,000	21,000	216,230
2000	419	28,700	4,780	92,700	15,300	142,000
2001	375	26,524	4,945	127,622	15,400	174,866
2002	557	22,211	5,060	87,287	16,200	131,315
2003	597	31,018	4,065	121,737	15,759	173,177

Appendix Table 4. Historic commercial salmon catches in Russia, in tonnes. 2002 and 2003 estimates are incomplete.

Year	Pink	Chum	Sockeye	Chinook	Coho	Total
1971	66,859	11,154	2,353	4,440	1,982	86,788
1972	20,351	6,298	1,050	1,927	2,240	31,866
1973	90,895	6,941	1,890	2,164	2,210	104,100
1974	33,025	9,066	1,050	3,880	1,830	48,851
1975	110,396	9,292	1,399	3,282	2,229	126,598
1976	54,502	12,840	1,170	3,412	1,956	73,880
1977	115,190	16,129	1,869	4,014	3,099	140,301
1978	57,651	21,931	3,377	2,349	2,947	88,255
1979	103,780	26,356	2,876	4,031	2,408	139,451
1980	79,301	17,557	3,885	2,364	1,057	104,164
1981	87,934	17,028	3,833	3,657	1,399	113,850
1982	47,781	15,723	2,967	3,758	1,342	71,570
1983	107,719	23,866	4,256	3,429	1,778	141,048
1984	56,653	15,185	6,298	4,812	1,683	84,630
1985	96,412	27,902	9,337	5,299	1,470	140,419
1986	40,964	25,621	7,542	3,279	1,800	79,206
1987	98,824	29,818	11,900	4,024	1,390	145,955
1988	40,658	29,112	8,360	3,137	1,460	82,727
1989	149,613	25,390	9,670	3,134	1,200	189,007
1990	76,111	30,359	16,399	2,608	1,000	126,477
1991	211,921	22,011	14,412	3,441	1,000	252,785
1992	87,340	21,568	15,365	4,738	1,100	130,110
1993	108,080	22,971	13,981	2,652	1,308	148,992
1994	125,170	28,229	10,660	2,507	1,101	167,667
1995	145,303	28,233	14,198	1,476	910	190,120
1996	110,030	24,916	16,802	1,949	534	154,231
1997	188,390	19,432	8,950	1,884	601	219,257
1998	192,095	25,135	10,135	1,697	461	229,523
1999	187,734	23,636	11,927	1,246	717	225,260
2000	147,568	30,773	15,107	1,707	454	195,610
2001	170,773	29,649	18,124	1,728	451	220,724
2002	108,109	37,591	24,796	555	1,707	172,759
2003	180,056	25,535	17,692	225	1,366	224,874

Appendix Table 5. Numbers of juvenile chum salmon released, numbers returning to hatcheries, and captured as bycatch in coastal fisheries in Korea from 1967-2003.

Year	No. of juveniles released (thousand)	No. of adults returning		
		Total	River	Coastal Bycatch
Total	254,908	1,622,657	424,135	1,198,522
1967	100	-	-	-
1968	30	-	-	-
1969	243	95	95	-
1970	617	410	410	-
1971	1,972	507	507	-
1972	1,596	273	273	-
1973	2,606	182	182	-
1974	1,778	440	440	-
1975	2,402	207	207	-
1976	741	578	578	-
1977	344	262	262	-
1978	102	322	322	-
1979	534	769	769	-
1980	409	970	970	-
1981	730	1,728	1,728	-
1982	1,234	1,997	1,997	-
1983	2,108	3,317	3,317	-
1984	3,139	4,786	4,786	-
1985	3,810	6,011	6,011	-
1986	5,590	8,977	8,977	-
1987	6,820	9,950	9,950	-
1988	7,350	14,164	14,164	-
1989	9,028	21,540	21,540	-
1990	10,300	104,113	29,542	74,571
1991	12,000	102,658	23,003	79,655
1992	10,000	110,666	27,471	83,195
1993	14,660	119,672	29,527	90,145
1994	16,110	136,200	37,166	99,034
1995	15,800	143,115	34,963	108,152
1996	16,000	215,026	30,265	184,761
1997	16,340	221,136	30,943	190,193
1998	19,410	157,711	36,954	120,757
1999	21,500	114,156	22,245	91,911
2000	19,000	16,985	7,137	9,848
2001	5,320	43,802	19,341	24,461
2002	10,450	59,932	18,093	41,839
2003	14,735			