

NPAFC
Doc. 999
Rev. _____

Biostatistical Information on Salmon Catches, Escapement, Outmigrants Number,
and Enhancement Production
In Russia in 2005 and preliminary data in 2006

Pacific Research Fisheries Centre (TINRO-centre)
4, Shevchenko Alley, Vladivostok, 690600, RUSSIA

Submitted to the
NORTH PACIFIC ANADROMOUS FISH COMISSION

BY

RUSSIA

October 2006

THIS PAPER MAY BE CITED IN THE FOLLOWING MANNER:

Biostatistical Information on Salmon Catches, Escapement, Outmigrants Number, and Enhancement Production in Russia in 2005. (NPAFC Doc. 999). 15 p. Pacific Research Fisheries Centre (TINRO-centre), 4, Shevchenko Alley, Vladivostok, 690600, RUSSIA.

Table 1

Total salmon catch in Russia (Far East) by species, region
and subregion , in tonnes, 2005.

Region,subregion	Pink	Chum	Sockeye	Coho	Chinook	Masu	Total
Western Bering Sea	93.155	525.277	358.846				977.278
Eastern Kamchatka	47403.340	9101.960	3111.630	445.430	529.840		60592.200
Kuriles	31818.300	4037.200				0.020	35855.520
The Sea of Okhotsk							
Western Kamchatka	8460.520	3781.810	16009.830	201.460	41.810		28495.430
Continental coast	11305.590	5735.790	23.120	169.290			17233.790
Sakhalin coast	105060.300	4574.600		1.847		13.300	109650.047
Amur Basin	960.43	2555.97					3516.400
The Sea of Japan							
Primor'e	83.66	18.05					101.710
Southwestern Sakhalin	285.000	2234.700				3.200	2522.900
Total	205470.295	32565.357	19503.426	818.027	571.650	16.520	258945.275

Table 2

Total salmon catch in Russia (Far East) by species, region
and subregion, in thousands of fish, 2005.

Region, subregion	Pink	Chum	Sockeye	Coho	Chinook	Masu	Total
Western Bering Sea	62.942	133.999	106.482				303.423
Eastern Kamchatka	35627.772	2882.397	1211.388	139.511	62.916		39923.984
Kuriles	25112.200	1151.800				0.015	26264.015
The Sea of Okhotsk							
Western Kamchatka	5894.446	1142.290	5743.613	66.446	5.07		12851.869
Continental coast	8971.841	1610.658	8.531	47.340			10638.370
Sakhalin coast	87400.000	1521.400		0.481		10.230	88932.111
Amur Basin	860.600	964.517					1825.117
The Sea of Japan							
Primor'e	49.212	4.439					53.651
Southwestern Sakhalin	226.500	592.800				2.462	821.762
Total	164205.513	10004.300	7070.014	253.778	67.990	12.707	181614.302

Table 3

Total pink salmon catch in Russia (Far East)
by regions, subregions and month in number of fish, 2005.

Region, subregion	May	June	July	August	September	Октябрь	Total
Western Bering Sea			55430	6003	1509		62942
Eastern Kamchatka		9692	29400296	5587684	630100		35627772
Kuriles			523000	20183200	4053300	352700	25112200
The Sea of Okhotsk							
Western Kamchatka			1459398	3372735	1062313		5894446
Continental Coast		39839	6659305	2121471	151210		8971825
Sakhalin Coast			28376500	58637500	386000		87400000
Amur Basin			701389	159211			860600
The Sea of Japan							
Primor'e			49212				49212
Southwestern Sakhalin		9700	46900	39300	130600		226500
Total		59231	67271430	90107104	6415032	352700	164205497

Table 4

Total chum salmon catch in Russia (Far East)
by regions, subregions and month in number of fish, 2005.

Region, subregion	June	July	August	September	October	November	Total
Western Bering Sea		43270	74587	16142			133999
Eastern Kamchatka	45755	1197722	971000	667920			2882397
Kuriles			6500	302700	797600	45000	1151800
The Sea of Okhotsk							
Western Kamchatka		192265	666385	283640			1142290
Continental Coast	697	469009	952894	188054			1610654
Sakhalin Coast		65100	97700	1261400	97200		1521400
Amur Basin		21170	508094	435253			964517
The Sea of Japan							
Primor'e				2639	1800		4439
Southwestern Sakhalin			10100	516000	66700		592800
Total	46452	1988536	3287260	3673748	963300	45000	10004296

Table 3/1

Total pink salmon catch in Russia (Far East)
by regions, subregions and month in tonnes, 2005.

Region, subregion	June	July	August	September	October	Total
Western Bering Sea		82.037	8.884	2.234		93.155
Eastern Kamchatka	12.60	38939.54	7632.07	819.13		47403.34
Kuriles		613.30	25228.10	5485.90	491.00	31818.30
The Sea of Okhotsk						
Western Kamchatka		1941.00	4957.92	1561.60		8460.52
Continental Coast		49.40	8365.85	2702.84	187.50	11305.59
Sakhalin Coast		33070.50	71519.60	470.20		105060.30
Amur Basin		782.75	177.68			960.43
The Sea of Japan						
Primor'e		83.66				83.66
Southwestern Sakhalin	12.20	55.30	46.90	170.60		285.00
Total	24.80	75617.49	117937.01	11212.50	678.50	205470.30

Table 4/1

Total chum salmon catch in Russia (Far East)
by regions, subregions and month in tonnes, 2005.

Region, subregion	June	July	August	September	October	November	Total
Western Bering Sea		169.618	292.382	63.277			525.277
Eastern Kamchatka	156.10	3978.50	3091.80	1875.56			9101.96
Kuriles			21.00	1009.30	2842.50	164.40	4037.20
The Sea of Okhotsk							
Western Kamchatka		653.70	2285.70	842.41			3781.81
Continental Coast	2.5	1669.81	3393.01	670.47			5735.79
Sakhalin Coast		168.10	270.70	3826.30	309.50		4574.60
Amur Basin		56.10	1346.45	1153.42			2555.97
The Sea of Japan							
Primor'e			11.75	6.30			18.05
Southwestern Sakhalin			38.10	1945.30	251.30		2234.70
Total	158.60	6695.83	10750.89	11392.34	3403.30	164.40	32565.36

Table 5

Total sockeye salmon catch in Russia (Far East)
by regions, subregions and month in number of fish, 2005.

Region, subregion	June	July	August	September	Total
Western Bering Sea	32285	66937	7127	133	106482
Eastern Kamchatka	510008	597357	74937	29086	1211388
Kuriles					0.00
The Sea of Okhotsk					
Western Kamchatka	481	1707491	3492241	543400	5743613
Continental Coast		7678	853		8531
Total	542774	2379463	3575158	572619	7070014

Table 6

Total coho salmon catch in Russia (Far East)
by regions, subregions and month in number of fish, 2005.

Region, subregion	June	July	August	September	October	Total
Eastern Kamchatka		1616	43580	94315		139511
Kuriles						0.00
The Sea of Okhotsk						
Western Kamchatka			13400	53046		66446
Continental Coast			20998	26326		47324
Total		1616	77978	173687		253281

Table 7

Total chinook salmon catch in Russia (Far East)
by regions, subregions and month in number of fish, 2005.

Region, subregion	June	July	August	September	Total
Eastern Kamchatka	25599	27896	9421		62916
Kuriles					0.00
The Sea of Okhotsk					
Western Kamchatka	697	3606	771		5074
Total	26296	31502	10192	0	67990

Table 5/1

Total sockeye salmon catch in Russia (Far East)
by regions, subregions and month in tonnes, 2005.

Region, subregion	June	July	August	September	October	Total
Western Bering Sea	108.800	225.578	24.020	0.450		358.848
Eastern Kamchatka	1294.80	1531.76	208.14	76.93		3111.63
Kuriles						0.00
The Sea of Okhotsk						
Western Kamchatka	1.30	4627.30	10022.73	1358.50		16009.83
Continental Coast		20.81	2.31			23.12
Total	1404.90	6405.45	10257.20	1435.88		19503.43

Table 6/1

Total coho salmon catch in Russia (Far East)
by regions, subregions and month in tonnes, 2005.

Region, subregion	June	July	August	September	October	Total
Eastern Kamchatka		4.30	125.23	315.90		445.43
Kuriles						0.00
The Sea of Okhotsk						
Western Kamchatka			40.20	161.26		201.46
Continental Coast			74.98	94.31		169.29
Total		4.30	240.41	571.47		816.18

Table 7/1

Total chinook salmon catch in Russia (Far East)
by regions, subregions and month in tonnes, 2005.

Region, subregion	June	July	August	September	Total
Eastern Kamchatka	221.80	233.10	74.94		529.84
Kuriles					0.00
The Sea of Okhotsk					
Western Kamchatka	7.60	28.81	5.40		41.81
Total	229.40	261.91	80.34		571.65

Table 8

Escapement of adult pacific salmon to spawning areas in Russia, by species, region and subregion in thousands of fishes, 2005.

Region, subregion	Pink	Chum	Sockeye	Coho	Chinook	Masu	Total
Western Bering Sea	0.00	2334.00	520.00				2854.00
Eastern Kamchatka	63463.95	1019.97	1598.64	438.67	99.99		66621.22
Kuriles	3056.00	140.40					3196.40
The Sea of Okhotsk							
Western Kamchatka	17711.10	1360.67	2647.04	439.56	74.29		22232.65
Continental Coast	19112.3	8892.2		51.5			28056.00
Sakhalin Coast	15982.80	300.30					16283.10
Amur Basin	406.40	1130.78					1537.18
The Sea of Japan							
Primor'e	13.30	19.80				11.50	44.60
Southwestern Sakhalin	780.60						780.60
Total	120526.45	15198.12	4765.68	929.72	174.28	11.50	141605.75

Table 9

Number of outmigrants of pacific salmon from Russian rivers
in 2005, in thousands of fish.

Region, subregion, river	Pink	Chum	Sockeye	Coho	Chinook	Masu
1	2	3	4	5	6	7
Eastern Kamchatka	6337.632	9098.279	4036.071	4385.631	3233.477	
R.Kamchatka basin						
R.Kamchatka	4811.032	7822.230	3482.932	1594.766	3168.961	
L.Ushki		3.540	7.638	462.392		
R.Nikolka			490.462	1817.817		
R.Zhupanovka		133.222	55.039	40.087	44.484	
R.Avacha	1526.600	1139.287		470.569	20.032	
South Kuril						
R.Olya	6204.000					
R.Rybatskaja	7954.000	1771.000				
R.Ilushina	4115.400	613.000				
The Sea of Okhotsk						
Western Kamchatka						
R.Icha	6351.291	6300.312	2028.826	1681.608	42.701	
R.Bystraja	5873.300	2049.800	1454.600	2355.800	2295.990	
R.Kluchevka						
R.Kihchik	62684.359	16667.552	556.613	1522.630	1674.718	11.698
R.Sadushka	5818.505	77.045	3.238	595.113		542.865
R.Kiumshich						
Continental coast						
R.Najahan	12600.00	13300.00				
R.Ola						
R.Tauy	7400.00	3900.00				
R.Okhota	340.00	8400.00				
R.Jama	11600.00	17900.00				
R.Uda		18336.60				
R.Aldoma	8653.90	4380.60				
R. Kukhtuy	7600.00	48700.00				
R.Amur basin						
R.Amur	397141.30	622657.70				
R.Amgun	179400.00	91600.00				
R.Ul		102.20				
Amur mouth region						
R.Isky	965.10	6133.20				
R.Gur		31443.00				
R. Ussuri		2790.59				
R.Tunguska		3587.84				

Continuation of table 9

1	2	3	4	5	6	7
Sakhalin coast						
	R. Langry	1256.00	1067.00			
	R. Bakhura	8133.00				
	R. Tym		16057.00			
	Cr. Holodnyi	5762.00	48.00			
	R. Ljutoga	15600.00				
	R. Dudinka	341.00				
	R. Kura	21220.00				
	R. Dagi	2304.20				
The Sea of Japan						
South Western Sakhalin						
	R. Pokosnaja	5130.00				
Primor'e						
	R. Tumnin	319524.914				
	R. Ulika	9921.42				
	R. Botchi					
	R. Avvakumovka		6000.00			
	R. Barabashevka					
	R. Narva					
	R. Kievka		250.00			
	R. Samarga					

Table 10

Quantity of different gears on pacific salmon fishery in Russia, by regions and subregions, in number of units, 2005.

Region, subregion	Gears		Total
	Set (beach) seine	River seine	
Western Bering Sea	2	5	7
Eastern Kamchatka	199	114	313
Kuriles	108	15	123
The Sea of Okhotsk			
Western Kamchatka	38	188	226
Continental Coast	40	140	180
Sakhalin Coast	308	45	353
Amur Basin	11	2	13
The Sea of Japan			
Primor'e	37	14	51
Southwestern Sakhalin	5	4	5

Table 11

Salmon fry released from Russian hatcheries, in thousands of fish, 2005.

Region, subregion	Pink	Chum	Sockeye	Coho	Chinook	Masu	Total
Eastern Kamchatka		21474.50		1661.00			23135.50
Kuriles	126133.00	34892.00				18.00	161043.00
The Sea of Okhotsk							
Western Kamchatka		1783.00	9540.00		839.00		12162.00
Continental Coast	685.60	26687.40	147.50	4626.70			32147.20
Sakhalin Coast	138976.00	181502.00		556.00		735.00	321769.00
Amur River Basin		29249.00				42.70	29291.70
The Sea of Japan							
Primor'e		17745.00				1.80	17746.80
Southwestern Sakhalin	12388.00	73996.00				441.00	86825.00
Total	278182.60	387328.90	9687.50	6843.70	839.00	1238.50	684120.20

Table 12

Average weights (kg) of salmon in commercial catches in Russia (Far East)
by species, region and subregion, 2005.

Region,subregion	Pink	Chum	Sockeye	Coho	Chinook	Masu
Western Bering Sea	1.48	3.92	3.37			
Eastern Kamchatka	1.33	3.16	2.57	3.19	8.42	
Kuriles	1.27	3.51				1.33
The Sea of Okhotsk						
Western Kamchatka	1.44	3.31	2.79	3.03	8.24	
Continental coast	1.26	3.56	2.71	3.58		
Sakhalin coast	1.20	3.01		3.84		1.30
Amur Basin	1.12	2.65				
The Sea of Japan						
Primor'e	1.70	4.07				2.63
Southwestern Sakhalin	1.26	3.77				1.30

Table 13

Sport catch of Pacific salmon in Russia (Far East) by species, and area, in numbers of fish, 2005.

Region, subregion	Pink	Chum	Sockeye	Coho	Chinook	Masu	Total
Western Bering Sea	3043	1504	593				5140
Eastern Kamchatka	18790	8975	5708	3737	151		37361
Kuriles	7100	100				15	7215
The Sea of Okhotsk							
Western Kamchatka	73333	26553	47738	20413	2336		170373
Continental Coast	366565	37952		11351			415868
Sakhalin Coast	92400	8300				10230	110930
Amur River Basin	3145	32908					36053
The Sea of Japan							
Primor'e	782	801				1131	2714
Southwestern Sakhalin	9800	1000				2462	13262
Total	574958	118093	54039	35501	2487	13838	798916

Table 14

Subsistence catch of Pacific salmon in Russia (Far East) by species, and area, in numbers of fish, 2005.

Region, subregion	Pink	Chum	Sockeye	Coho	Chinook	Masu	Total
Western Bering Sea	10811	22061	14243				47115
Eastern Kamchatka	584331	41500	36241	1171	2207		665450
Kuriles							
The Sea of Okhotsk							
Western Kamchatka	274313	118399	13093	14518	811		421134
Continental Coast	412472	115343		2240			530055
Sakhalin Coast	71200	52900					124100
Amur River Basin		159903					159903
The Sea of Japan							
Primor'e		872					872
Southwestern Sakhalin	700						700
Total	1353827	510978	63577	17929	3018		1949329

Table 15

Catch of Pacific salmon by foreign fishery fleet in far-eastern Russian exclusive economic zone by species, by region, in tonnes, 2005.

Region, subregion	Pink	Chum	Sockeye	Coho	Chinook	Masu	Total
Eastern Kamchatka	112.0	1457.0	1298.0	0.5	34.0		2901.5
Southern Kuriles	91.0	1246.0	1292.0	30.0	16.0		2675.0
The Sea of Okhotsk							
Western Kamchatka							
Sakhalin coast	14.0	741.0	148.0	26.0	17.0		946.0
The Sea of Japan							
Primor'e							
Total	217.0	3444.0	2738.0	56.5	67.0	0.0	6522.5

Table 16

Average weights (kg) of salmon in commercial catches in Russia (Far East)
by species, region and subregion, 2005.

Region,subregion	Pink	Chum	Sockeye	Coho	Chinook	Masu
Western Bering Sea	1.48	3.92	3.37			
Eastern Kamchatka	1.33	3.16	2.57	3.19	8.42	
Kuriles	1.27	3.51				1.33
The Sea of Okhotsk						
Continental coast	1.26	3.56	2.71	3.58		
Western Kamchatka	1.44	3.31	2.79	3.03	8.24	
Sakhalin coast	1.20	3.01		3.84		1.30
Amur Basin	1.12	2.65				
The Sea of Japan						
Primor'e	1.70	4.07				
Southwestern Sakhalin	1.26	3.77				1.30

**Preliminary total salmon catch in Russia (Far East) by species, region
and subregion , in tonnes, 2006**

Region,subregion	Pink	Chum	Sockeye	Coho	Chinook	Masu	Total
Western Bering Sea	0.90	438.66	415.43				855.00
Eastern Kamchatka	13093.70	8670.30	4578.40	601.00	670.30		27613.70
Kuriles	44445.40	260.20	103.40	19.50	1.30		44829.80
The Sea of Okhotsk							
Western Kamchatka	48287.70	9945.70	19104.60	189.09	66.40		77593.49
Continental coast	468.50	10046.20	45.10	216.90			10776.70
Sakhalin coast	83768.40	521.10					84289.50
Amur Basin	2301.27	3273.33					5574.60
The Sea of Japan							
Primor'e	2581.10	0.02				9.98	2591.11
Southwestern Sakhalin	94.70	2952.00					3046.70
Total	195041.67	36107.52	24246.93	1026.49	738.00	9.98	257170.59