HISTORICAL CATCHES OF ATLANTIC SALMON (SALMO SALAR) AT FOUR SPORT FISHING LODGES ON RESTIGOUCHE RIVER, N.B.

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HISTORICAL CATCHES OF ATLANTIC SALMON (*Salmo salar*) AT FOUR SPORT FISHING LODGES ON RESTIGOUCHE RIVER, NB

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ABSTRACT

Chadwick, E. M. P., D. Brazeau-Carrier and C. E. Léger. 1985. Historical catches of Atlantic salmon (Salmo salar) at four sport fishing lodges on Restigouche River, NB. Can. Tech. Rep. Fish. Aquat. Sci. No. 1362: iii + 27 p.

Historical data from the logbooks of four sport fishing camps on the Main Restigouche River are presented. The data include numbers of angled salmon and the weights of killed fish. Results indicate that the data from the camps are representative of the salmon population in the Restigouche River as a whole. Annual data are correlated between the camps. Such data may be useful in estimating total annual angling harvest as well as spawning escapement.

RÉSUMÉ

Chadwick, E. M. P., D. Brazeau-Carrier and C. E. Léger. 1985. Historical catches of Atlantic salmon (Salmo salar) at four sport fishing lodges on Restigouche River, NB. Can. Tech. Rep. Fish. Aquat. Sci. No. 1362: iii + 27 p.

Des données historiques tirées des archives de quatre camps de pêche sportive de la Rivière Restigouche sont présentées. Les données comprennent les quantités de saumons pris par les sportifs ainsi que les poids des poissons qui furent tués. Selon les résultats, les données provenant de ces camps de pêche sont représentatives de la population entière de saumon dans la Rivière Restigouche. Une corrélation existe entre les données des quatre camps. De telles données seraient utiles dans les estimations de la prise sportive totale annuelle et de l'ampleur de l'échappement des reproducteurs.

INTRODUCTION

The following is a summary of recent and historical salmon angling data compiled from the logbooks of four sport fishing lodges on the Main Restigouche River: Runnymede Lodge, Kedgwick Lodge, Brandy Brook Lodge and Camp Harmony. The data extend back to the turn of the century or beyond and were recorded by the managers of the lodges.

Included in the data are the numbers of salmon and grilse which were caught and released, and usually the individual weights of the fish which were killed. The logbooks indicate that the catch was composed almost entirely of bright salmon; black salmon were only rarely caught.

Numbers of anglers fishing the river at particular times were also noted in the logbooks.

Also included were notes and comments, often anecdotal, on such matters as river conditions, spawning, predator numbers, poaching, the ice run and general comments on the angling season. Some of these notes are included as an appendix to this report.

METHODS

The daily catch data were transcribed from the logbooks onto coding sheets in lines as follows: lodge code, year, month, day, number of salmon released (not weighed), number of grilse released (not weighed), number of salmon killed (not weighed), number of grilse killed (not weighed), number of unspecified type (i.e. salmon or grilse), the individual weights of fish released, and finally the individual weights of fish killed.

The majority of the data fall in the last of the above categories (killed and weighed). Fish weight was recorded to the nearest pound (0.45 kg). When summarizing these data by computer, we considered all fish weighing less than five pounds as having been grilse. The salmon were further categorized into small (5-15 lbs inclusive) and large (> 15 lbs). These categories are based on the weights of aged fish taken at the Dalhousie trap from 1972 to 1980 (Peppar 1983), where grilse weighed 3.31 ± 1.12 lbs (95% C.L.; n = 1,448); small, or 2SW salmon, weighed 11.31 ± 4.39 lbs (95% C.L.; n = 265); and large, or 3SW salmon, weighed 22.62 ± 7.89 lbs (95% C.L.; n = 43).

Fishing effort is expressed in rod-days which are defined as any day or part of a day in which an individual angled. Monthly estimates of rod-days were calculated from information in the logbooks and daily registers of two of the lodges: Kedgwick Lodge and Camp Harmony.

The coded catch and weight data were keypunched into an HP3000 computer using a V3000 screen entry system. The fishing effort data were entered into a separate file.

Printouts of the data were produced and all data were verified against the coding sheets.

Summaries of the annual total numbers of fish by categories, of total catches, percentages of large salmon, and catch per unit effort (CPUE = total annual catch / total annual rod-days) were tabulated using a FORTRAN program called SALTAB1.

The weight data were averaged on a monthly (June, July, August) and yearly basis for grilse, small salmon and large salmon separately, and the results tabulated using a FORTRAN program called SALTAB3. Using a SAS program, LODGCORR, we obtained the correlation of the annual mean weights of the three separate size categories between each pair of camps.

RESULTS

The locations of the four sport camps considered in this report are indicated in Figure 1. It should be noted that Kedgwick and Brandy Brook Lodges are located near resting pools, while the other two camps are on runs with no pools nearby. Catches may tend to be greater in resting pools than in runs, especially if water levels are low. Figures 2(a), 2(b) and 2(c) show the annual mean weights at the four camps of large salmon, small salmon and grilse respectively, as a function of time (years).

Summaries of the catch statistics for the four camps are presented in Tables 1 to 4. Fish numbered in Columns A through F were killed, except in 1984 when all MSW salmon (Columns B and C) were released and their weights estimated. The total catch in Column J is of all fish whether killed or released. Numbers in Column F represent fish of unspecified type.

The annual mean weights of grilse, small salmon and large salmon, as well as the number of fish weighed in each category, are presented in Tables 5 to 8. These data correspond to Figure 2. Tables 9 to 11 are matrices of the correlation, between pairs of camps, of the annual mean weights of grilse, small salmon and large salmon respectively.

None of the correlations between annual mean weights of grilse are significant. This may be due in part to the fact that the individual weights of fish were rounded to the nearest pound.

The variability of the individual weights would therefore be greater, in a relative sense, for grilse which generally weigh from 3 to 4 pounds, than for larger fish.

However, the annual mean weights of the small salmon are significantly correlated between pairs of camps in all possible combinations, as are those of the large salmon (Tables 10 and 11). This is also evident in Figures 2(a) and 2(b).

These highly significant correlations, over the years, between the annual mean weights of MSW salmon at four independently operated fishing camps, indicate that the camp data are representative of the salmon population in the Restigouche River as a whole. It also suggests that some factor in the marine environment is responsible for annual variations in average weight of returning salmon, which could be the subject of future studies.

It has been shown and reported elsewhere (Chadwick et al. 1984) that total annual catches of both grilse and salmon are generally correlated between the four fishing camps. It was also shown that the data from the four sport camps, which represent about 15% of the total catch in the Restigouche River, can be used to estimate angling harvest for the entire river ($r = 0.94$, $P < 0.01$). A significant correlation between the camp totals and parr densities two years later ($r = 0.62$, $P < 0.05$) suggests that the sport camp data may be a useful index of spawning escapement.

ACKNOWLEDGEMENTS

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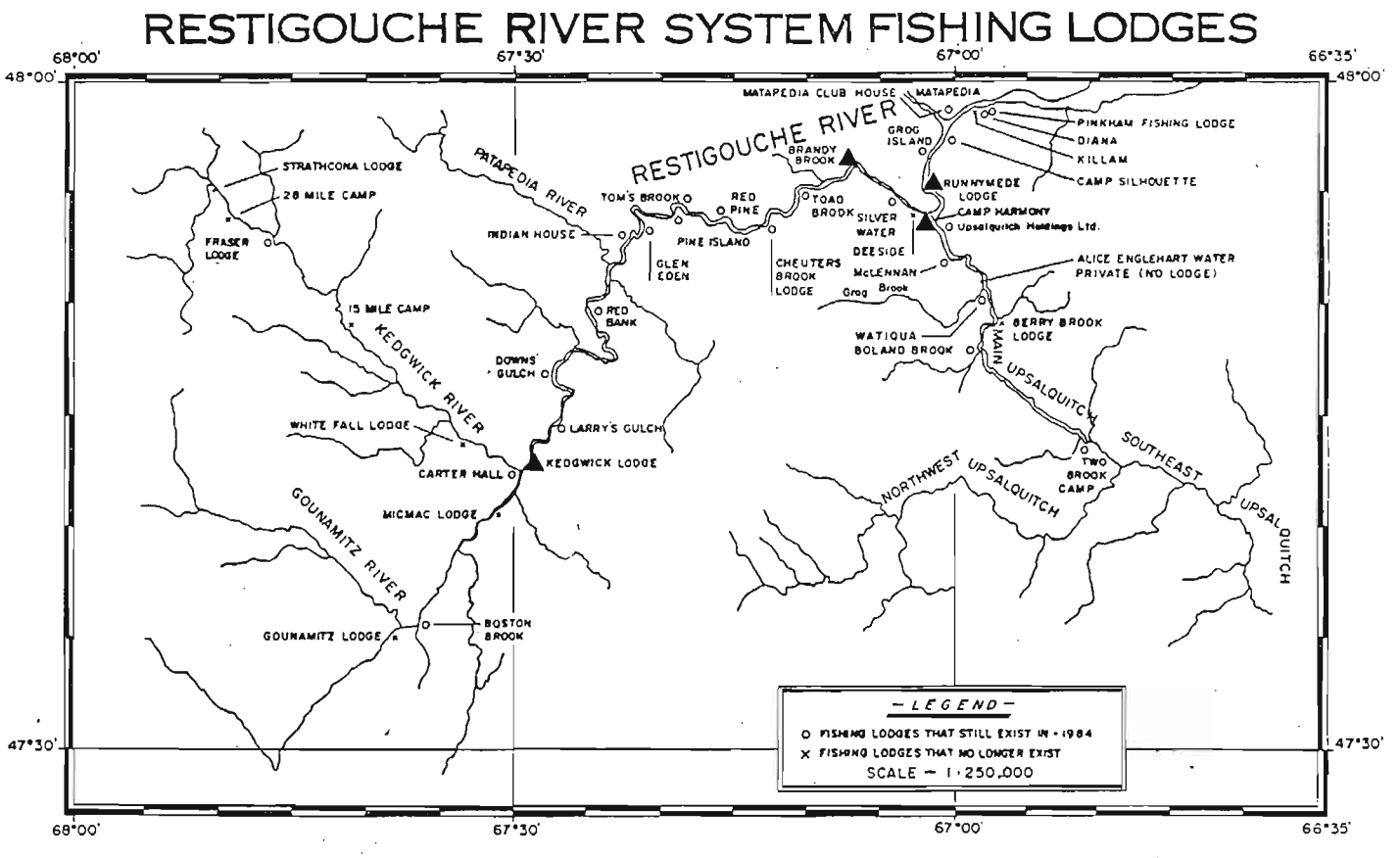
Figure 1



▲- Sport camps considered in this report

Figure 2. Annual mean weights of salmon at four fishing camps (1893-1984): (a) large salmon, (b) small salmon, (c) grilse.

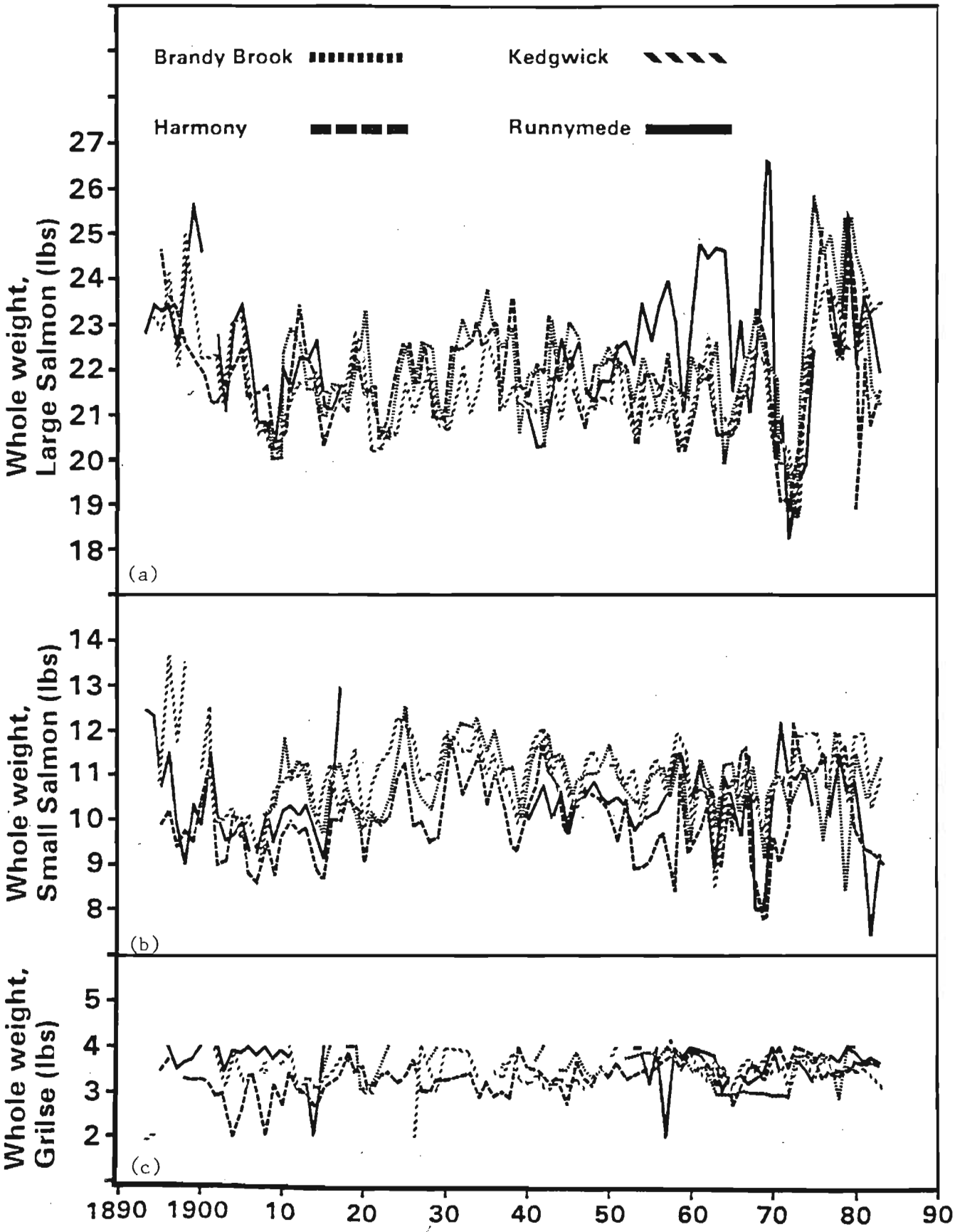


Table 1. Summary of catch statistics at Runnymede Lodge. *All MSW salmon weighed and released.

	KILLED & WEIGHED			KILLED, NOT WEIGHED				RELEASED, NOT WEIGHED				
	A	B	C	D	E	F	G	H	I	J	K	L
YEAR	GRILSE	SMALL SALMON	LARGE SALMON	GRILSE	SALMON	TYPE UNKNOWN	PERCENT LARGE SALMON	GRILSE	SALMON	TOTAL CATCH	ROD DAYS	CATCH PER ROD DAY
1893	0	2	5	0	0	0	71.4	0	0	7	0	.00
1894	0	12	17	0	14	0	58.6	0	0	43	0	.00
1895	0	6	11	0	0	6	64.7	0	0	17	267	.06
1896	1	37	123	0	0	0	76.4	0	0	161	174	.93
1897	2	42	31	0	0	0	41.3	0	0	75	162	.46
1898	3	7	58	0	0	0	85.3	0	0	68	145	.47
1899	25	42	19	0	0	0	22.1	0	0	86	152	.57
1900	2	55	47	0	0	0	45.2	0	0	104	143	.73
1901	0	5	0	0	0	0	.0	0	0	5	188	.03
1902	2	101	161	0	0	0	61.0	0	0	264	141	1.99
1903	5	56	42	0	0	0	40.8	0	0	103	191	.54
1904	13	41	31	0	0	0	36.5	0	0	85	205	.41
1905	21	135	36	0	0	0	18.8	0	0	192	194	.99
1906	2	127	118	55	12	0	39.1	0	0	314	202	1.55
1907	29	291	77	7	0	0	19.1	0	0	404	180	2.24
1908	2	109	99	5	0	0	46.2	0	0	214	186	1.15
1909	27	123	77	2	0	0	33.6	0	0	229	159	1.44
1910	17	157	129	3	0	0	42.2	0	0	306	188	1.63
1911	66	352	218	0	0	0	34.3	0	0	636	198	3.38
1912	0	132	114	0	0	0	46.3	0	0	246	216	1.14
1913	15	265	133	9	0	2	31.5	0	0	422	174	2.43
1914	1	148	152	32	0	0	45.6	0	0	333	187	1.78
1915	7	245	109	29	0	0	27.9	0	0	390	163	2.39
1916	0	150	117	35	0	4	38.7	0	0	302	161	1.88
1917	0	8	18	1	0	0	66.7	0	0	27	223	.12
1940	0	136	78	73	0	0	27.2	0	0	287	133	2.16
1941	0	198	30	63	0	11	10.3	0	0	291	181	1.61
1942	0	88	74	29	0	0	38.7	0	0	191	139	1.37
1943	0	170	119	75	0	0	32.7	0	0	364	184	1.98
1944	0	152	108	18	0	0	38.8	0	0	278	227	1.22
1945	0	114	124	89	0	0	37.9	0	0	327	331	.99
1946	0	105	50	50	0	0	24.4	0	0	205	190	1.08
1947	0	73	95	0	0	0	56.5	0	0	168	344	.49
1948	0	96	75	56	0	0	33.0	0	0	227	195	1.16
1949	0	148	99	27	0	0	36.1	0	0	274	289	.95
1950	0	91	70	83	0	0	28.7	0	0	244	344	.71
1951	0	92	47	24	0	0	28.8	0	0	163	389	.42
1952	0	85	90	19	0	0	46.4	0	0	194	331	.59
1953	1	64	39	83	0	0	20.9	0	0	187	283	.66
1954	1	67	44	61	0	0	25.4	0	0	173	230	.75
1955	24	22	34	60	0	0	24.3	0	0	140	206	.68
1956	1	48	52	54	0	0	33.5	0	2	157	248	.63
1957	1	125	28	82	0	0	11.9	0	0	236	255	.93
1958	1	46	73	96	0	0	33.8	0	0	216	322	.67
1959	17	21	5	0	0	0	11.6	0	0	43	237	.18
1960	51	13	25	0	0	0	28.1	0	0	89	142	.63
1961	20	42	15	12	0	0	16.9	0	32	121	156	.78
1962	14	21	36	16	1	0	41.4	0	0	88	112	.79
1963	33	18	10	6	0	0	14.9	0	0	67	188	.36
1964	66	60	18	0	0	0	12.5	0	0	144	211	.68
1965	96	59	73	1	0	0	31.9	0	0	229	214	1.07
1966	22	21	33	7	0	0	39.8	0	0	83	163	.51
1967	10	30	64	11	0	0	55.7	0	1	116	231	.50
1968	0	1	10	0	0	0	90.9	0	0	11	147	.07
1969	11	7	20	0	0	0	52.6	0	2	40	151	.26
1970	2	14	4	0	0	0	20.0	0	0	20	124	.16
1971	2	13	3	3	0	0	14.3	0	0	21	174	.12
1972	0	13	4	218	0	0	1.7	0	0	235	54	4.35
1973	8	18	9	0	0	0	25.7	0	0	35	194	.18
1974	11	101	35	1	0	0	23.6	3	0	151	243	.62
1975	4	23	15	268	0	0	4.8	0	0	310	312	.99
1977	20	98	45	0	0	0	27.6	0	0	163	246	.66
1978	6	28	35	0	0	0	50.7	0	0	69	229	.30
1979	5	11	22	0	0	0	57.9	0	0	38	243	.16
1980	37	95	24	0	0	0	15.4	0	0	156	190	.82
1981	38	46	45	0	0	0	34.9	0	0	129	273	.47
1982	53	80	26	23	0	0	14.3	0	0	182	264	.69
1983	31	51	17	0	0	0	17.2	0	0	99	273	.36
1984 *	0	40	45	18	0	0	43.7	0	0	103	0	.00

Table 2. Summary of catch statistics at Kedgwick Lodge. *All MSW salmon weighed and released.

	KILLED & WEIGHED			KILLED, NOT WEIGHED				RELEASED, NOT WEIGHED				
	A	B	C	D	E	F	G	H	I	J	K	L
YEAR	GRILSE	SMALL SALMON	LARGE SALMON	GRILSE	SALMON	TYPE UNKNOWN	PERCENT LARGE SALMON	GRILSE	SALMON	TOTAL CATCH	ROD DAYS	CATCH PER ROD DAY
1856	0	1	2	2	0	0	40.0	0	0	5	0	.00
1886	1	4	32	0	0	0	86.5	0	0	37	7	5.29
1890	0	5	49	0	0	0	90.7	0	0	54	13	4.15
1894	1	47	128	5	0	0	70.7	0	0	181	56	3.23
1895	0	69	102	0	0	0	59.6	0	0	171	58	2.95
1896	0	3	63	0	112	0	95.5	0	0	178	23	7.74
1897	0	4	20	0	0	0	83.3	0	0	24	15	1.60
1898	0	2	33	0	6	0	94.3	0	0	41	29	1.41
1899	0	0	0	0	47	0	.0	0	0	47	40	1.17
1900	0	7	36	0	0	0	83.7	0	0	43	22	1.95
1901	0	30	49	7	38	0	57.0	0	0	124	32	3.88
1902	4	10	57	0	0	0	80.3	0	0	71	29	2.45
1903	23	104	105	0	0	0	45.3	1	0	233	90	2.59
1904	40	41	77	0	0	0	48.7	0	0	158	126	1.25
1905	24	100	64	47	0	0	27.2	0	0	235	92	2.55
1906	1	99	132	0	0	0	56.9	81	0	313	80	3.91
1907	0	37	26	0	0	0	41.3	2	0	65	62	1.05
1908	3	125	130	0	0	0	50.4	0	0	258	88	2.93
1909	0	41	73	11	0	0	58.4	2	0	127	80	1.59
1910	0	72	151	15	0	0	63.4	19	0	257	88	2.92
1911	1	150	130	34	1	0	41.3	6	0	322	164	1.96
1912	11	107	132	1	0	0	52.6	0	0	251	94	2.67
1913	17	146	120	0	0	0	42.4	0	0	283	123	2.30
1914	25	90	239	4	0	0	66.8	0	0	358	101	3.54
1915	33	184	155	0	0	0	41.7	0	0	372	198	1.88
1916	24	163	176	0	0	0	48.5	5	0	368	96	3.83
1917	21	52	106	0	0	0	59.2	0	0	179	76	2.36
1918	3	30	26	0	0	0	44.1	0	0	59	43	1.37
1919	0	34	127	1	0	0	78.4	0	0	162	119	1.36
1920	11	70	98	21	0	0	49.0	2	0	202	96	2.10
1921	19	158	107	4	0	0	37.2	0	0	288	90	3.20
1922	0	61	184	18	167	0	70.0	4	0	434	126	3.44
1923	0	139	150	0	39	224	51.9	2	10	340	133	2.56
1924	0	75	157	0	578	0	67.7	8	0	818	187	4.37
1925	0	317	253	0	136	0	44.4	0	0	706	120	5.88
1926	1	83	220	5	208	0	71.2	0	0	517	127	4.07
1927	1	180	350	1	0	0	65.8	1	0	533	87	6.13
1928	9	160	242	9	0	0	57.6	0	0	420	174	2.41
1929	49	198	232	42	0	0	44.5	0	0	521	214	2.43
1930	23	330	229	10	0	0	38.7	19	0	611	286	2.14
1931	67	237	365	6	0	0	54.1	2	0	677	277	2.44
1932	183	321	319	61	0	0	36.1	0	0	884	328	2.70
1933	88	371	211	8	0	0	31.1	16	0	694	259	2.68
1934	17	157	172	55	0	0	42.9	1	0	402	276	1.46
1935	0	149	144	77	0	0	38.9	10	0	380	254	1.50
1936	2	142	186	146	0	0	39.1	0	0	476	311	1.53
1937	30	340	219	141	47	9	30.0	0	0	777	299	2.60
1938	64	155	224	8	114	0	49.7	0	0	565	374	1.51
1939	25	168	241	65	0	0	48.3	0	0	499	346	1.44
1940	372	205	153	7	0	0	20.8	0	0	737	417	1.77
1941	80	577	256	186	0	0	23.3	0	0	1099	0	.00
1942	113	334	409	1	0	0	47.7	0	0	857	0	.00
1943	129	217	377	4	0	0	51.9	0	0	727	0	.00
1944	70	247	413	2	0	0	56.4	0	0	732	0	.00
1945	216	198	285	0	0	0	40.8	0	0	699	0	.00
1946	215	403	278	17	0	0	30.4	0	0	913	0	.00
1947	44	170	172	33	0	0	41.1	3	0	422	275	1.53
1948	0	401	294	85	4	0	37.7	0	0	784	322	2.43
1949	0	315	241	79	0	0	38.0	17	0	652	298	2.19
1950	0	177	225	170	0	0	39.3	13	0	585	0	.00
1951	1	184	304	119	0	0	50.0	0	0	608	0	.00
1952	0	252	204	105	0	0	36.4	1	0	562	0	.00
1953	0	211	321	107	0	0	50.2	2	0	641	0	.00
1954	0	85	207	93	0	0	53.8	0	0	385	0	.00
1955	0	92	117	230	0	0	26.7	7	0	446	0	.00
1956	0	135	156	235	0	0	29.7	0	0	526	322	1.63
1957	0	152	56	131	0	0	16.5	19	0	358	200	1.79
1958	0	66	114	324	0	0	22.6	72	0	576	284	2.03
1959	0	471	71	27	0	0	12.5	1	0	570	299	1.91
1960	37	77	307	4	0	0	72.2	18	0	443	327	1.35

Table 2 (cont'd.)

	KILLED & WEIGHED			KILLED, NOT WEIGHED				RELEASED, NOT WEIGHED				
	A	B	C	D	E	F	G	H	I	J	K	L
YEAR	GRILSE	SMALL SALMON	LARGE SALMON	GRILSE	SALMON	TYPE UNKNOWN	PERCENT LARGE SALMON	GRILSE	SALMON	TOTAL CATCH	ROD DAYS	CATCH PER ROD DAY
1961	56	156	103	51	0	0	28.1	0	2	368	355	1.04
1962	23	135	155	16	0	0	47.1	0	1	330	400	.82
1963	247	225	106	147	0	0	14.6	138	0	863	481	1.79
1964	125	198	70	87	0	0	14.6	22	0	502	480	1.05
1965	121	217	255	67	0	0	38.6	29	0	689	474	1.43
1966	136	132	206	51	0	0	39.2	8	0	533	480	1.11
1967	30	183	242	34	0	4	49.6	16	0	504	492	1.02
1968	43	35	96	0	0	0	52.9	2	0	180	404	.45
1969	139	60	111	17	0	0	33.9	19	0	345	392	.88
1970	101	118	55	17	0	0	19.2	16	0	297	349	.85
1971	72	70	55	0	0	0	27.9	0	0	197	249	.79
1972	4	201	138	4	0	0	39.8	28	22	397	280	1.42
1973	19	297	125	3	0	0	26.2	8	0	452	393	1.15
1974	22	213	181	0	0	0	43.5	5	0	421	439	.96
1975	30	192	116	2	0	0	34.1	1	0	341	491	.69
1976	58	209	106	9	0	0	25.4	4	0	377	432	.87
1977	32	228	116	4	0	0	29.4	1	0	375	410	.91
1978	25	149	157	0	0	0	47.4	0	0	331	348	.95
1979	126	76	69	1	0	0	25.4	1	64	337	0	.00
1980	29	241	124	0	0	0	31.6	6	60	459	0	.00
1981	49	57	179	2	0	0	64.4	3	1	292	0	.00
1982	62	79	89	0	0	0	36.2	7	14	242	408	.59
1983	38	66	66	0	0	0	38.9	6	40	216	489	.45
1984*	0	90	119	83	0	0	38.9	9	0	253	0	.00

Table 3. Summary of catch statistics at Brandy Brook lodge. *All MSW salmon weighed and released.

	KILLED & WEIGHED			KILLED, NOT WEIGHED				RELEASED, NOT WEIGHED				
	A	B	C	D	E	F	G	H	I	J	K	L
YEAR	GRILSE	SMALL SALMON	LARGE SALMON	GRILSE	SALMON	TYPE UNKNOWN	PERCENT LARGE SALMON	GRILSE	SALMON	TOTAL CATCH	ROD DAYS	CATCH PER ROD DAY
1908	2	45	67	0	0	0	58.8	0	4	118	0	.00
1909	0	19	53	6	0	0	67.9	0	3	81	0	.00
1910	3	7	37	1	0	0	77.1	0	1	49	0	.00
1911	0	28	37	3	0	0	54.4	0	0	68	0	.00
1912	0	23	83	2	0	11	76.9	0	19	127	0	.00
1913	0	69	58	1	0	0	45.3	0	13	141	0	.00
1914	0	26	103	0	0	0	79.8	0	0	129	0	.00
1915	6	91	71	0	0	0	42.3	0	0	168	0	.00
1916	1	60	58	2	0	0	47.9	0	0	121	0	.00
1917	0	35	144	3	0	0	79.1	0	41	223	0	.00
1918	1	94	88	2	0	0	47.6	0	0	185	0	.00
1919	1	23	57	0	0	0	70.4	0	5	86	0	.00
1920	3	46	53	6	0	0	49.1	0	0	108	0	.00
1921	3	17	9	0	0	0	31.0	0	0	29	0	.00
1922	6	57	103	0	0	0	62.0	0	0	166	0	.00
1923	1	83	36	36	0	0	23.1	0	0	156	0	.00
1924	0	49	83	5	0	0	60.6	0	0	137	0	.00
1925	0	71	83	14	0	0	49.4	0	0	168	0	.00
1926	0	80	140	9	0	0	61.1	0	0	229	0	.00
1927	0	104	125	0	0	0	54.6	0	0	229	0	.00
1928	11	56	97	0	0	0	59.1	0	4	168	0	.00
1929	13	54	55	0	0	0	45.1	0	0	122	0	.00
1930	0	210	127	7	0	0	36.9	0	0	344	0	.00
1931	0	58	112	1	0	0	65.5	0	0	171	0	.00
1932	0	56	95	5	14	0	60.9	0	0	170	0	.00
1933	0	140	100	1	0	0	41.5	0	0	241	0	.00
1934	0	55	103	1	0	0	64.8	0	0	159	0	.00
1935	0	67	61	3	0	0	46.6	0	0	131	0	.00
1936	0	47	104	6	0	35	66.2	0	0	157	0	.00
1937	7	69	49	3	0	0	38.3	0	0	128	0	.00
1938	0	11	9	0	0	0	45.0	0	0	20	0	.00
1939	0	61	65	21	0	0	44.2	0	2	149	0	.00
1940	0	91	79	0	0	0	46.5	0	0	170	0	.00
1941	3	169	68	8	0	0	27.4	0	0	248	0	.00
1942	2	100	70	20	0	0	36.5	0	0	192	0	.00
1943	0	110	210	13	0	0	63.1	0	13	346	0	.00
1944	2	175	199	8	0	0	51.8	0	0	384	0	.00
1945	20	87	124	7	0	0	52.1	0	0	238	0	.00
1946	7	123	98	9	0	0	41.4	0	0	237	0	.00
1947	2	82	94	0	0	0	52.8	0	1	179	0	.00
1948	3	132	69	5	0	0	33.0	0	0	209	0	.00
1949	19	92	105	4	0	0	47.7	0	0	220	0	.00
1950	0	41	85	1	0	0	66.9	1	0	128	0	.00
1951	0	49	59	0	0	0	54.6	0	0	108	0	.00
1952	4	75	112	1	0	0	58.3	0	0	192	0	.00
1953	15	55	57	14	0	0	40.4	0	0	141	0	.00
1954	9	39	67	4	0	0	56.3	0	0	119	0	.00
1955	7	19	57	8	0	0	62.6	0	0	91	0	.00
1956	15	53	58	5	0	0	44.3	0	0	131	0	.00
1957	51	96	33	13	0	0	17.1	0	0	193	0	.00
1958	75	68	93	11	0	0	37.7	0	0	247	0	.00
1959	41	69	10	1	0	0	8.3	0	0	121	0	.00
1960	125	26	50	0	0	0	24.9	0	0	201	0	.00
1961	42	90	24	6	0	0	14.8	0	0	162	0	.00
1962	27	48	59	11	0	0	40.7	0	0	145	0	.00
1963	160	11	5	0	0	0	2.8	0	0	176	0	.00
1964	73	86	29	0	0	0	15.4	0	0	188	0	.00
1965	24	67	41	53	0	0	22.2	0	0	185	0	.00
1966	103	35	17	31	0	0	9.1	0	0	186	0	.00
1967	54	60	68	0	0	0	37.4	0	0	182	0	.00
1968	7	11	34	1	0	0	64.2	0	0	53	0	.00
1969	64	19	19	13	0	0	16.5	0	1	116	0	.00
1970	28	39	15	0	0	0	18.3	0	0	82	0	.00
1971	44	26	21	0	0	0	23.1	0	0	91	0	.00
1972	9	82	43	0	0	0	32.1	0	0	134	0	.00
1973	23	40	16	5	0	0	19.0	0	0	84	0	.00
1974	16	143	58	0	0	0	26.7	1	0	218	0	.00
1975	48	54	31	1	0	0	23.1	0	0	134	0	.00
1976	12	141	43	51	0	0	17.4	0	0	247	0	.00
1977	21	219	55	30	0	0	16.9	0	0	325	0	.00
1978	6	67	85	28	0	0	45.7	0	0	186	0	.00
1979	1	28	36	70	0	0	26.7	0	0	135	0	.00
1980	3	198	33	89	0	0	10.2	0	0	323	0	.00
1981	0	65	91	83	0	0	38.1	0	0	239	0	.00
1982	0	55	53	92	0	0	26.5	0	1	201	0	.00
1983	0	25	13	22	0	0	21.7	10	55	125	0	.00
1984 *	1	60	64	32	0	0	40.8	0	0	157	0	.00

Table 4. Summary of catch statistics at Camp Harmony. *All MSW salmon weighed and released.

	KILLED & WEIGHED			KILLED, NOT WEIGHED				RELEASED, NOT WEIGHED				
	A	B	C	D	E	F	G	H	I	J	K	L
YEAR	GRILSE	SMALL SALMON	LARGE SALMON	GRILSE	SALMON	TYPE UNKNOWN	PERCENT LARGE SALMON	GRILSE	SALMON	TOTAL CATCH	ROD DAYS	CATCH PER ROD DAY
1895	9	63	25	0	0	0	25.8	0	0	97	0	.00
1896	31	145	177	0	0	0	50.1	0	0	353	0	.00
1897	0	47	35	0	38	0	42.7	0	0	120	0	.00
1898	6	17	46	0	3	0	66.7	0	0	72	0	.00
1899	11	35	19	0	9	0	29.2	0	0	74	0	.00
1900	15	56	49	0	1	0	40.8	0	0	121	0	.00
1901	5	96	65	0	0	0	39.2	0	0	166	0	.00
1902	7	65	118	0	0	0	62.1	0	0	190	0	.00
1903	9	110	52	1	11	0	30.2	0	0	183	0	.00
1904	1	31	36	0	0	0	52.9	0	0	68	0	.00
1905	10	108	51	0	0	0	30.2	0	0	169	0	.00
1906	44	159	102	0	0	0	33.4	0	0	305	0	.00
1907	5	111	39	0	12	0	25.2	0	0	167	0	.00
1908	1	88	62	0	0	0	41.1	0	0	151	0	.00
1909	5	61	43	0	0	0	39.4	0	0	109	0	.00
1910	3	106	116	0	0	0	51.6	0	0	225	0	.00
1911	5	154	122	0	0	0	43.4	1	0	282	0	.00
1912	13	170	106	0	0	0	36.7	0	0	289	0	.00
1913	2	178	113	0	0	0	38.6	0	0	293	0	.00
1914	9	146	171	0	0	0	52.5	0	0	326	0	.00
1915	27	246	157	0	0	0	36.5	0	0	430	0	.00
1916	12	219	113	0	0	0	32.8	0	0	344	0	.00
1917	27	180	374	0	6	0	64.4	0	0	587	0	.00
1918	9	134	145	0	0	0	50.3	0	0	288	0	.00
1919	5	52	118	0	0	0	67.4	0	0	175	0	.00
1920	37	143	116	0	0	0	39.2	0	0	296	0	.00
1921	12	116	48	0	0	0	27.3	0	0	176	0	.00
1922	33	327	280	0	0	0	43.8	0	0	640	0	.00
1923	21	141	66	0	0	0	28.9	0	0	228	0	.00
1924	37	279	222	0	0	0	41.3	0	0	538	0	.00
1925	17	246	236	0	0	0	47.3	0	0	499	0	.00
1926	7	117	167	0	0	0	57.4	0	0	291	0	.00
1927	14	155	151	0	3	0	47.2	0	0	323	0	.00
1928	3	36	47	0	0	0	54.7	0	0	86	0	.00
1929	14	73	68	0	0	0	43.9	0	0	155	0	.00
1930	14	272	182	0	0	0	38.9	0	0	468	0	.00
1931	3	99	185	0	0	0	64.5	0	0	287	0	.00
1932	38	187	158	0	0	0	41.3	0	0	383	0	.00
1933	40	359	172	0	0	0	30.1	0	0	571	0	.00
1934	7	176	171	0	0	0	48.3	0	0	354	0	.00
1935	4	133	102	0	0	0	42.7	0	0	239	0	.00
1936	13	144	179	0	0	0	53.3	0	0	336	0	.00
1937	6	69	41	0	0	0	35.3	0	0	116	0	.00
1938	5	45	36	0	39	0	41.9	0	0	125	0	.00
1939	4	56	58	14	52	0	43.3	0	0	184	0	.00
1940	69	261	116	6	19	0	25.7	0	0	471	0	.00
1941	25	161	39	0	0	0	17.3	0	1	226	0	.00
1942	24	199	121	0	0	0	35.2	0	0	344	0	.00
1943	12	75	200	0	0	0	69.7	0	26	313	0	.00
1944	5	194	140	0	0	0	41.3	0	0	339	0	.00
1945	14	103	143	52	20	0	45.8	0	0	332	0	.00
1946	15	101	63	0	0	0	35.2	0	0	179	0	.00
1947	32	105	107	0	0	0	43.7	0	0	245	0	.00
1948	17	131	58	0	0	0	28.2	0	0	206	0	.00
1949	41	180	110	0	0	0	33.2	0	0	331	0	.00
1950	120	139	121	0	0	0	31.8	0	0	380	0	.00
1951	51	132	59	0	0	0	24.4	0	0	242	0	.00
1952	39	206	192	0	0	0	43.9	0	0	437	0	.00
1953	153	112	43	0	0	0	14.0	0	0	308	0	.00
1954	47	72	34	0	0	0	22.2	0	0	153	0	.00
1955	24	16	39	0	0	0	49.4	0	0	79	0	.00
1956	79	78	30	0	0	0	16.0	1	0	188	0	.00
1957	108	133	29	0	0	0	10.7	0	0	270	0	.00
1958	133	181	104	0	0	0	24.9	0	0	418	0	.00
1959	6	57	10	0	0	0	13.7	0	10	83	0	.00
1960	17	10	17	0	0	0	38.6	0	0	44	0	.00
1961	23	69	20	0	0	0	17.9	0	0	112	0	.00
1962	4	39	53	0	0	0	55.2	0	0	96	0	.00
1963	63	42	19	0	0	0	15.3	0	0	124	0	.00
1964	186	187	27	0	0	0	6.8	0	0	400	0	.00
1965	75	76	79	47	0	0	28.5	0	0	277	0	.00
1966	6	19	48	0	0	0	65.8	0	0	73	0	.00
1967	9	51	84	0	0	0	58.3	0	0	144	0	.00
1968	2	5	17	0	0	0	70.8	0	0	24	0	.00

Table 4 (cont'd.)

	KILLED & WEIGHED			KILLED, NOT WEIGHED				RELEASED, NOT WEIGHED				
	A	B	C	D	E	F	G	H	I	J	K	L
YEAR	GRILSE	SMALL SALMON	LARGE SALMON	GRILSE	SALMON	TYPE UNKNOWN	PERCENT LARGE SALMON	GRILSE	SALMON	TOTAL CATCH	ROD DAYS	CATCH PER ROD DAY
1969	12	15	33	0	0	0	55.0	0	0	60	0	.00
1970	5	20	12	0	0	0	32.4	0	0	37	0	.00
1971	2	3	3	0	0	0	37.5	0	0	8	0	.00
1972	19	71	24	0	0	0	21.1	0	3	117	0	.00
1973	17	52	14	0	0	0	16.9	0	0	83	0	.00
1974	30	176	52	0	0	0	20.2	0	0	258	0	.00
1975	18	41	22	0	0	0	27.2	0	0	81	0	.00
1976	12	20	19	0	0	0	37.3	0	0	51	0	.00
1977	27	124	30	0	0	0	16.6	0	0	181	0	.00
1978	4	51	43	0	0	0	43.9	0	0	98	0	.00
1979	24	28	19	0	0	0	26.8	0	0	71	0	.00
1980	34	118	10	0	0	0	6.2	0	0	162	0	.00
1981	41	41	77	0	0	0	48.4	0	0	159	0	.00
1982	32	45	20	0	0	0	20.6	0	0	97	0	.00
1983	29	57	19	0	0	2	18.1	0	0	105	0	.00
1984 *	15	43	38	0	0	0	39.6	0	0	96	0	.00

Table 5. Mean weights (lbs.) at Runnymede Lodge.

YEAR	GRILSE		SMALL SALMON		LARGE SALMON	
	M WT	NO	M WT	NO	M WT	NO
1893	.00	0	12.50	2	22.80	5
1894	.00	0	12.33	12	23.47	17
1895	.00	0	10.67	6	23.27	11
1896	4.00	1	11.57	37	23.46	123
1897	3.50	2	9.88	42	22.55	31
1898	3.67	3	9.00	7	24.13	52
1899	3.72	25	10.17	42	25.68	19
1900	4.00	2	9.85	55	24.60	47
1901	.00	0	11.60	5	.00	0
1902	4.00	2	10.18	101	22.79	143
1903	3.40	5	9.55	55	21.11	36
1904	3.92	13	9.63	41	23.10	30
1905	3.90	21	9.99	135	23.50	36
1906	4.00	2	9.39	127	22.21	112
1907	3.76	29	9.30	291	20.84	77
1908	4.00	2	10.16	108	20.84	99
1909	3.70	27	9.49	123	20.21	77
1910	3.94	17	10.21	157	22.02	121
1911	3.76	66	10.36	352	21.60	218
1912	.00	0	10.11	132	22.35	114
1913	3.33	15	10.26	265	22.25	133
1914	2.00	1	9.77	148	22.70	152
1915	4.00	7	9.14	245	21.20	106
1916	.00	0	10.48	150	21.13	115
1917	.00	0	13.00	8	21.67	18
1940	.00	0	9.99	136	21.17	78
1941	.00	0	10.39	198	20.27	30
1942	.00	0	10.83	88	20.31	74
1943	.00	0	10.04	170	21.79	119
1944	.00	0	10.66	152	22.73	108
1945	.00	0	9.68	114	21.98	124
1946	.00	0	10.50	105	22.63	49
1947	.00	0	10.58	73	21.47	95
1948	.00	0	10.86	96	21.32	75
1949	.00	0	10.51	148	21.79	99
1950	.00	0	10.31	91	21.76	70
1951	.00	0	10.57	92	22.53	47
1952	.00	0	10.25	85	22.87	88
1953	4.00	1	9.75	64	22.09	35
1954	4.00	1	9.99	67	23.55	44
1955	3.17	24	10.09	22	22.65	34
1956	4.00	1	10.21	48	23.42	52
1957	2.00	1	10.60	125	24.00	28
1958	4.00	1	11.52	46	23.01	73
1959	3.76	17	11.48	21	21.00	5
1960	4.00	51	10.46	13	23.44	25
1961	3.95	20	11.29	42	24.80	15
1962	3.93	14	10.48	21	24.44	38
1963	3.82	33	8.94	18	24.70	10
1964	3.00	66	10.98	60	24.67	18
1965	3.35	96	10.54	59	21.59	73
1966	3.45	22	9.62	21	23.12	32
1967	3.20	10	11.50	30	21.03	64
1968	.00	0	8.00	1	23.30	10
1969	3.45	11	8.00	7	26.65	20
1970	4.00	2	10.29	14	20.00	4
1971	3.50	2	12.23	13	21.00	3
1972	.00	0	11.08	13	18.25	4
1973	3.75	8	10.89	18	19.44	9
1974	3.55	11	11.25	101	19.89	35
1975	3.25	4	10.35	23	22.47	15
1977	3.85	20	10.07	98	23.82	45
1978	3.67	6	11.46	28	22.29	35
1979	4.00	5	10.64	11	25.59	22
1980	3.91	34	10.84	94	22.08	24
1981	3.71	38	9.39	46	23.64	45
1982	3.81	53	7.45	80	23.15	26
1983	3.68	31	9.24	51	21.88	17

YEAR	GRILSE		SMALL SALMON		LARGE SALMON	
	M WT	NO	M WT	NO	M WT	NO
1856	.00	0	10.00	1	21.50	2
1886	2.00	1	13.25	4	24.31	32
1890	.00	0	12.20	5	23.27	49
1894	2.00	1	11.02	47	23.18	128
1895	.00	0	10.86	69	22.91	102
1896	.00	0	13.67	3	24.16	63
1897	.00	0	11.75	4	22.00	20
1898	.00	0	13.50	2	25.00	33
1900	.00	0	11.14	7	22.25	36
1901	.00	0	12.50	30	22.24	49
1902	4.00	4	9.90	10	22.33	57
1903	3.09	23	9.94	104	21.34	105
1904	3.80	40	10.24	41	23.12	77
1905	3.29	24	9.67	100	23.19	84
1906	3.00	1	10.14	99	21.48	132
1907	.00	0	9.03	37	20.58	26
1908	3.67	3	9.72	125	20.77	130
1909	.00	0	10.68	41	20.14	73
1910	.00	0	10.82	72	20.86	151
1911	4.00	1	11.09	150	21.60	130
1912	3.00	11	10.92	107	21.74	132
1913	3.24	17	11.25	146	21.74	120
1914	3.04	25	9.86	90	21.97	239
1915	3.24	33	10.64	184	21.46	155
1916	3.29	24	11.23	163	21.55	176
1917	3.71	21	10.08	52	21.23	106
1918	3.67	3	11.00	30	21.31	26
1919	.00	0	11.59	34	22.84	127
1920	3.00	11	9.77	70	22.31	98
1921	3.00	19	10.65	158	20.14	107
1922	.00	0	11.18	61	20.18	184
1923	.00	0	11.47	139	20.69	150
1924	.00	0	12.29	75	20.55	157
1925	.00	0	12.16	317	21.74	253
1926	2.00	1	11.82	83	21.06	220
1927	4.00	1	10.82	180	21.56	350
1928	3.44	9	11.02	160	22.02	242
1929	3.04	49	10.86	198	20.79	232
1930	4.00	23	11.91	330	20.69	229
1931	3.97	67	11.86	237	21.00	364
1932	3.96	183	11.56	321	22.07	315
1933	3.83	88	11.57	371	21.01	211
1934	3.29	17	12.14	157	21.55	172
1935	.00	0	11.00	149	22.74	144
1936	3.50	2	11.44	142	21.96	185
1937	3.23	30	10.81	340	21.18	219
1938	3.81	64	10.45	155	21.60	224
1939	3.28	25	9.86	168	21.28	241
1940	3.20	372	11.15	205	21.24	153
1941	3.39	80	11.93	577	21.08	256
1942	3.15	113	12.02	334	21.08	409
1943	3.00	129	10.98	217	21.78	377
1944	3.31	70	11.50	247	20.99	413
1945	3.09	218	10.51	198	22.42	285
1946	3.23	215	10.36	403	21.39	278
1947	3.09	44	11.25	170	20.98	172
1948	.00	0	11.49	401	21.36	294
1949	.00	0	11.13	315	21.39	241
1950	.00	0	11.15	177	21.26	225
1951	4.00	1	11.37	184	22.45	304
1952	.00	0	10.72	252	21.27	204
1953	.00	0	11.12	211	20.47	321
1954	.00	0	9.87	85	21.76	207
1955	.00	0	11.20	92	20.70	117
1956	.00	0	11.35	135	21.61	156
1957	.00	0	10.47	152	20.80	56
1958	.00	0	11.82	66	21.39	114
1959	.00	0	11.47	471	20.25	71
1960	3.84	37	9.71	77	21.25	307
1961	3.50	56	10.67	156	21.72	103
1962	3.22	23	10.87	135	22.79	155
1963	3.63	247	8.35	225	21.20	106
1964	3.55	125	10.50	198	20.94	70
1965	3.05	121	10.86	217	20.43	255
1966	3.53	136	10.52	132	21.40	206
1967	3.70	30	11.17	182	21.67	242
1968	3.40	43	10.05	39	22.53	96
1969	3.71	139	9.32	60	22.21	111
1970	3.35	101	10.44	118	20.56	55
1971	3.67	72	10.99	70	20.47	55
1972	3.00	4	10.73	201	20.14	138
1973	3.68	19	11.89	297	18.87	125
1974	3.68	22	11.93	213	22.08	181
1975	3.27	30	11.93	192	23.22	116
1976	3.74	58	11.23	200	23.75	106
1977	3.62	32	11.08	228	23.65	110
1978	3.40	25	11.95	149	23.27	157
1979	3.60	126	10.37	76	22.57	69
1980	3.45	20	11.87	238	22.57	122
1981	3.47	40	11.89	57	23.92	179
1982	3.37	62	10.22	79	23.30	80
1983	3.16	38	10.86	66	23.45	66

Table 6. Mean weights (lbs.) at Kedgwick Lodge.

Table 7. Mean weights (lbs.) at Brandy Brook Lodge.

YEAR	GRILSE		SMALL SALMON		LARGE SALMON	
	M WT	NO	M WT	NO	M WT	NO
1908	3.50	2	9.91	45	20.85	67
1909	.00	0	10.32	19	20.02	53
1910	3.67	3	11.86	7	22.38	37
1911	.00	0	10.86	28	22.92	37
1912	.00	0	11.35	23	22.67	83
1913	.00	0	11.06	69	21.67	58
1914	.00	0	10.27	26	21.67	103
1915	3.50	6	9.68	91	19.94	71
1916	4.00	1	10.87	60	21.71	58
1917	.00	0	11.26	35	21.67	144
1918	4.00	1	10.90	94	21.26	88
1919	4.00	1	10.00	23	21.96	57
1920	3.00	3	9.74	46	23.30	53
1921	3.00	3	10.18	17	21.22	9
1922	3.50	6	9.93	57	20.78	103
1923	4.00	1	10.46	83	20.50	36
1924	.00	0	11.49	49	21.89	83
1925	.00	0	12.49	71	22.52	83
1926	.00	0	10.91	80	21.53	140
1927	.00	0	10.47	104	22.65	125
1928	3.73	11	10.21	56	22.53	97
1929	4.00	13	10.81	54	21.15	55
1930	.00	0	12.08	210	20.74	127
1931	.00	0	12.07	58	22.28	112
1932	.00	0	12.20	56	23.11	95
1933	.00	0	12.06	140	22.69	100
1934	.00	0	12.27	55	22.90	103
1935	.00	0	11.52	67	23.79	61
1936	.00	0	12.00	47	22.73	104
1937	3.57	7	11.01	69	22.51	49
1938	.00	0	11.18	11	22.89	9
1939	.00	0	10.05	61	20.60	65
1940	.00	0	11.29	91	21.86	79
1941	3.67	3	11.60	169	21.97	68
1942	4.00	2	11.87	100	20.27	70
1943	.00	0	11.37	110	23.10	210
1944	3.50	2	11.37	175	21.80	199
1945	3.50	20	10.51	87	23.03	124
1946	3.86	7	10.79	123	22.73	98
1947	3.50	2	10.96	82	21.57	94
1948	3.33	3	10.98	132	21.10	69
1949	3.47	19	11.10	92	21.99	105
1950	.00	0	11.66	41	22.48	85
1951	.00	0	10.98	49	22.05	57
1952	3.75	4	10.80	75	21.93	112
1953	3.80	15	10.42	55	21.26	57
1954	3.89	9	10.33	39	22.27	67
1955	3.86	7	10.84	19	21.68	57
1956	3.80	15	11.17	53	20.91	58
1957	4.00	51	10.44	96	21.52	33
1958	3.79	75	11.24	68	21.70	93
1959	3.83	41	11.58	69	21.30	10
1960	3.49	125	9.54	26	22.30	50
1961	3.50	42	11.32	90	21.79	24
1962	3.56	27	10.44	48	21.83	59
1963	3.00	160	9.82	11	22.60	5
1964	3.00	73	11.20	86	19.90	29
1965	3.00	24	11.27	67	20.80	41
1966	3.01	103	10.17	35	21.18	17
1967	3.00	54	11.15	60	22.35	68
1968	3.00	7	10.45	11	23.24	34
1969	3.00	64	9.18	19	22.26	19
1970	2.93	28	10.69	39	21.80	15
1971	3.00	44	10.96	26	19.90	21
1972	3.00	9	10.26	82	19.88	43
1973	3.74	23	10.65	40	18.75	16
1974	3.75	16	11.15	143	22.22	58
1975	3.65	48	10.91	54	25.84	31
1976	3.92	12	9.49	141	24.47	43
1977	3.71	21	10.50	219	24.96	55
1978	2.83	6	11.87	67	23.36	85
1979	4.00	1	8.43	28	25.36	36
1980	4.00	3	11.46	198	24.48	33
1981	.00	0	10.94	65	24.00	91
1982	.00	0	10.44	55	21.64	53
1983	.00	0	11.40	25	21.23	13

YEAR	GRILSE		SMALL SALMON		LARGE SALMON	
	M WT	NO	M WT	NO	M WT	NO
1895	3.44	9	9.87	63	24.64	25
1896	3.71	31	10.18	145	23.36	177
1897	.00	0	9.38	47	22.71	35
1898	3.33	6	9.76	17	22.46	46
1899	3.27	11	9.46	35	23.21	19
1900	3.33	15	10.36	56	21.96	49
1901	3.20	5	11.23	94	21.28	64
1902	2.86	7	8.98	65	21.26	118
1903	3.00	9	9.05	110	21.58	52
1904	2.00	1	10.03	31	22.06	36
1905	2.50	10	9.80	108	22.49	51
1906	3.34	44	8.78	159	21.41	102
1907	3.00	5	8.56	111	21.51	39
1908	2.00	1	9.55	88	21.66	62
1909	3.20	5	8.75	61	20.30	43
1910	2.67	3	9.58	106	20.69	116
1911	3.40	5	9.97	154	21.64	122
1912	3.08	13	9.67	170	23.47	106
1913	3.00	2	9.84	178	22.33	113
1914	2.67	9	8.90	146	21.89	171
1915	3.15	27	8.72	246	20.32	157
1916	3.17	12	9.94	219	21.20	113
1917	3.33	27	9.96	180	21.32	374
1918	3.78	9	10.57	134	21.20	145
1919	3.40	5	10.15	52	22.65	118
1920	3.11	37	9.03	143	21.44	116
1921	3.08	12	10.16	116	21.65	48
1922	3.33	33	9.94	327	20.37	280
1923	3.38	21	10.05	141	20.88	66
1924	3.19	37	10.92	279	21.62	222
1925	3.35	17	11.24	246	22.61	238
1926	2.71	7	9.80	117	21.67	187
1927	3.00	14	9.97	155	22.70	151
1928	3.00	3	9.47	38	21.77	47
1929	3.21	14	9.63	73	20.97	88
1930	3.21	14	11.82	272	20.88	182
1931	3.33	3	11.82	99	22.48	185
1932	3.34	38	10.56	187	22.42	158
1933	3.40	40	10.92	359	22.63	172
1934	2.86	7	11.45	178	22.98	171
1935	3.25	4	10.32	133	22.53	102
1936	2.85	13	11.08	144	23.02	179
1937	3.00	6	10.26	69	21.07	41
1938	2.80	5	9.40	45	23.61	38
1939	4.00	4	9.26	58	21.62	58
1940	3.51	69	10.31	261	21.41	116
1941	3.44	25	10.75	161	22.03	39
1942	3.25	24	11.66	199	21.87	121
1943	3.00	12	11.11	75	23.19	200
1944	3.20	5	10.70	194	21.68	140
1945	2.64	14	9.86	103	22.01	143
1946	3.67	15	10.50	101	21.49	63
1947	3.24	33	10.68	105	20.69	107
1948	3.12	17	10.53	131	22.05	58
1949	3.56	41	10.27	180	22.11	110
1950	3.24	120	10.35	139	22.30	121
1951	3.67	51	9.44	132	22.09	57
1952	3.33	39	10.46	205	22.03	190
1953	3.37	153	8.91	111	20.37	38
1954	3.45	47	8.96	72	21.88	34
1955	3.50	24	9.08	16	21.90	39
1956	3.56	79	9.58	78	21.50	30
1957	3.61	108	9.72	133	22.17	29
1958	3.81	133	8.29	181	20.84	104
1959	3.50	6	11.02	57	20.30	10
1960	3.88	17	9.40	10	21.18	17
1961	3.83	23	9.71	69	22.10	20
1962	3.50	4	10.67	39	21.98	53
1963	3.13	63	9.26	42	21.00	18
1964	3.46	186	10.35	187	20.52	27
1965	2.73	75	9.72	76	20.68	79
1966	3.17	6	11.53	19	21.27	48
1967	3.56	9	11.59	51	21.55	84
1968	3.50	2	9.00	5	23.47	17
1969	3.33	12	7.73	15	22.61	33
1970	3.80	5	9.65	20	20.58	12
1971	4.00	2	9.00	3	19.00	3
1972	3.47	19	9.93	71	19.00	24
1973	4.00	17	11.52	52	18.79	14
1974	3.57	30	10.89	176	21.46	52
1975	3.78	18	11.07	41	22.59	22
1976	3.25	12	11.45	20	25.16	19
1977	3.52	27	10.62	124	23.03	30
1978	3.25	4	11.75	51	22.23	43
1979	3.67	24	11.14	28	24.58	19
1980	3.68	34	9.78	118	18.90	10
1981	3.63	41	9.39	41	22.26	77
1982	3.78	32	9.27	45	20.75	20
1983	3.76	29	9.05	57	21.47	19

Table 8. Mean weights (lbs.) at Camp Harmony.

Table 9. Correlation matrix for weights of grilse between pairs of camps: correlation coefficient (r), probability (p), and no. of observations (n).

		Runnymede	Kedgwick	Brandy Brook
Kedgwick	r	0.306		
	p	0.094	--	--
	n	31		
Brandy Brook	r	0.108	0.069	
	p	0.585	0.691	--
	n	28	36	
Harmony	r	0.038	0.170	0.142
	p	0.803	0.186	0.326
	n	45	62	50

Table 10. Correlation matrix for weights of small salmon between pairs of camps: correlation coefficient (r), probability (p), and no. of observations (n).

		Runnymede	Kedgwick	Brandy Brook
Kedgwick	r	0.377		
	p	0.002	--	--
	n	66		
Brandy Brook	r	0.423	0.639	
	p	0.002	0.0001	--
	n	53	76	
Harmony	r	0.467	0.521	0.435
	p	0.0001	0.0001	0.0001
	n	66	88	76

Table 11. Correlation matrix for weights of large salmon between pairs of camps: correlation coefficient (r), probability (p), and no. of observations (n).

		Runnymede	Kedgwick	Brandy Brook
Kedgwick	r	0.529		
	p	0.0001	--	--
	n	65		
Brandy Brook	r	0.423	0.711	
	p	0.002	0.0001	--
	n	53	76	
Harmony	r	0.526	0.565	0.642
	p	0.0001	0.0001	0.0001
	n	65	88	76

Appendix 1.

Historical notes are taken from Restigouche Riparian Association Annual Report. From 1942 to 1944 these reports were written by Mr. Max Mowat, Head Guardian of the Association. From 1945 to 1954, they were written by G.A. Mowat and in 1955 and 1956 by A.J. Murray. G.A. Mowat was on the river for over 50 years. Occasionally, statements made by the Assistant Head Guardian, Mr. R.K. Shives, were included.

1942

Commercial Fishery

One big storm occurred just when the big run of fish were running. This storm caused considerable damage to the anchor nets in the Bay of Chaleur.

As enemy submarines have been operating in Canada's coastal waters, particularly the Gulf of St. Lawrence and bay of Chaleur, armed patrol boats have been operating with depth charges, which no doubt has been harmful to all fish in these waters.

Sport Fishery

June 16 — After the water started to fall, netters were complaining of poor catches, but the anglers were doing wonderful fishing.

By July 14, the fishing was poor though.

July 23 — In all my years on the river (45 years), I have never seen as many fish in the river as on this trip.

Only three club rods were on the river and they were doing poor fishing.

August 6 — Pools well stocked with fish but not taking the fly.

August 20 — On the Patapedia salmon were very plentiful.

August 21 — On the rivers - Wardens reported pools full of fish.

September 9 — Water lowest in the history of the river. All small brooks were dry and very little water in the larger brooks.

Spawners In late September all the pools were full of fish, I estimated about 5,000 fish between Cheyne's Pool and the mouth of the Kedgwick (a stretch of about 4 miles).

September 29 - 30 Water raise of 1 foot and fish rush up the branches.

October 28 On the Patapedia River, a large number of salmon still in the river.

The water has been so low this year the fish were not able to get up the brooks to spawn.

Lumber companies dredged two channels on all the bars from the mouth of the Kedgwick up to the rapids in order to scow their supplies - a great deal of damage must have been done by the horses and scow going over beds. Wardens reported many more spawning fish. Scarcity of grilse.

Two hundred and seventy-four (274) females from which were collected 2,127,332 eggs, laid down at the Government Hatchery in Charlo.

One case of dynamiting reported on the Upper Kedgwick (in the early 40's - poaching was not a big problem since a lot of men were at war).

1943 Ice ran out of the Bay on May 8, latest date since 1926.

September 30 An estimated number of 4,000 salmon were seen between the mouth of the Kedgwick River and Soldiers Pool (a stretch of about three miles).

Also noticed from Hales Brook to Jimmy's Hole was this behaviour: the males were in one bunch and the females in another. The two bunches were about two hundred yards apart and were between five and six hundred in each bunch.

1944

June 15 Heavy run of salmon reported on both sides of the Bay of Chaleur.

1945 By the 7th of April the river was clear of ice to Matapedia.

Sport Fishery

May 19 — First bright salmon reported, taken at Moores Settlement (just before Grog Is. Camp).

June 1 — At Down Gulch, 28 lbs. salmon caught.

June 10 — Fishing quality reported to be low - for anglers as well as for commercial fishermen.

June 20 — Fishing quality reported to be fair on the Kedgwick.

June 21 — Only two fish seen between mouth of Gounamitz to mouth of Little Main, about 14-15 miles of river.

July 18 — On Main Restigouche, fishing rather poor.

August 14-15 — Down Main River. Water low and had a good chance to see the fish. Many less than last few years.

September 16 — Most of the fish reported were seen from Red Bank and up.

Warden at Matapedia Pool (Million Dollar Pool) stated about half as many fish as last year in the pool.

About two miles up the Gounamitz carried the greater spawn. The rest of the system, I would judge was about half of last years spawn.

Spawners — During spawning time, water was at a good height.

Fingerlings are not thought to be eaten by trout since after having examined the stomach of dozens of trout, no fingerlings were found. Trout do eat parr though, and are heavy feeders at spawning time.

One hundred and eighty-seven (187) females were collected and produced 1,340,955 eggs.

1946

May 29 — First bright salmon caught on the river at the Rafting Ground.

Sport Fishery

Poor during June but fairly good to satisfactory after that.

In the 1946 angling season, for the first time in seven or eight years, there were quite a few salmon in the lower Kedgwick during July and August. Previous to that time it was a rare thing to see a salmon in July and after below the fifteen mile. Old guides, however, reported that years ago they always fished the lower Kedgwick until late season.

The question is then is it a change of behaviour or a change induced by natural or unnatural conditions: ex. water level, motorized boats, traffic, bigger amount of spawners in earlier years than then...?

Spawners One hundred and sixty-five (165) females and 81 males were captured in the Main Restigouche in order to supplement Charlo Hatchery.

A total of 2,009,280 eggs were taken from those fish.

In 1946, it was stated that Alder Grounds was the principal spawning ground on the North Kedgwick (near the Dead Water Line in Quebec).

The river system was very low at spawning time which should ensure a water coverage for the beds during the winter, more spawning fish in the lower parts of the major tributaries than on their upper parts. Few fish spawned in the larger brooks on account of the very low water.

1947

Ice Run River: May 5 to 9.

Sport Fishery

May 19 First bright salmon caught in the Bay in Barbarie's nets (below Dalhousie), 36 lbs.

On the river June 5 (at Flatlands).

In late June, on the main river, very good fishing. Two lodges even made a record catch. On the Kedgwick: quite poor. The fishing season was disappointing on the whole. It seems that salmon entering the river were much below average.

Water Level Good until the end of July - low after that at spawning time - salmon spawned well away from shore and in the channel.

Spawners Because of low water conditions during spawning time, possible loss of eggs from frost kill that winter. A few fresh run fish in the lower river which came in just before spawning started.

One hundred and eighty (180) spawners were seined in order to supplement Charlo hatchery with eggs. Half of them were taken from Kedgwick River, and the rest on the little Main; 1,195,809 eggs were extracted from those fish.

R.K. Shives (Assistant Head Guardian) proposed that year to build fences at the mouth of Grog Brook (Upsalquitch River) Chain of Rocks, Tom's Brook, Five Finger and Jardine (Main & Little Main Restigouche) in a way to protect more efficiently the salmon. Those brooks were important spawning grounds but difficult to protect. The encroachment of the settlers was one reason motivating that proposal.

Regarding young fish in the river, I have never seen salmon parr so plentiful. This may be due, in part, to the shooting of mergansers and the increased number of motorized canoes which chase the young ducks up the brooks. Anyway, there were hardly any young ducks or old ones, either, on the river all summer and early fall. (P.S.: no exceptional numbers of spawners in 1945 or in 1946).

However, cormorants are becoming more plentiful.

1948

Ice Run River was clear by April 24.

Sport Fishery

May 20 First bright salmon caught at Dalhousie.

June 25 Fishing was good at Kedgwick and on Kedgwick River.

Due to excellent water conditions, angling was very good.

Spawners In the Matapedia, less than last year but the spawn was about average.

At the start of spawning, a heavy rain raised the river about five feet. The fish were not, however, moving into the shores for spawning.

Because of the rise, it was impossible to judge the number of spawning fish, but I have no hesitancy in saying there were more fish in the river than in the past few years.

Grilse were below normal this season.

One hundred and sixty-six (166) females and 83 males produced 1,929,650 eggs (fish caught in the Kedgwick River). In addition 1,308,125 eggs were received from the fish at New Mills Pond.

Ducks were very scarce till the late fall. Then there were some. I think that the many motor canoes continuously going up and down the river drive the young ducks into the brooks where they stay until they can fly.

I have seen only two cormorants this summer in the river but there were plenty of them from the booms down.

One seal killed at the mouth of the Upsalquitch (a bounty of $10 was then in application).

1949

May 16 First bright salmon caught on river at Flatlands.

Sport Fishery

June 6 Fishing was very good for the next five or six weeks. The fish were very large in the river and in the nets averaging well over 20 lbs.

One camp took forty-six fish up to June 11. Only four being under 20 lbs.

June 22 & 23 At Forks Pool, about 200 salmon seen. Main Patapedia held many more fish than in the past few years.

September 11 On Matapedia River, more fish than usual.

Because of consistently high water, fishing in the lower river was below ordinary.

On the Matapedia, 17 mergansers were killed.

Spawners Little Main - the spawning on this stream was much heavier than in the past few years.

Natural spawning was under ideal conditions, low water and the fish were spawning well out from the shore. A heavy spawn occurred with more fish in all streams than in the last five years (1944-1948). A raise of two feet in late October assured good winter water coverage.

From Chain of Rocks down, the number of salmon spawning was much smaller than usual; but above that there were more than we have had for several years. From Matapedia down, there were very few fish on the bars, indicating that very few fish entered the river during September or early October.

Two hundred and thirty-eight (238) females and 100 males produced 2,580,748 eggs (salmon were taken from the Kedgwick River). One female, judged to be well over 50 lbs, when spawned, gave 26,400 eggs.

1950 After a heavy rain (three days), the ice in all streams lifted almost intact on April 22 and moved downstream where it jammed solidly at Matapedia - considerable damage occurred. Older inhabitants reported that it was the worst ice run they had ever known.

May 17 First bright salmon caught in the Bay in nets at Charlo.

Sport Fishery

In early June, fishing was fair in the upper river and good in some of the lower water.

West Branch of the Kedgwick was known not to be holding salmon even in those years.

Spawners Fish started spawning around October 14, and it was almost completed by the 28 except for the Patapedia which was a little later than usual.

Because of the very low water, all fish spawned in the river and none in the brooks.

A very heavy rain at the end of October raised the streams from six to seven feet.

From Chamberland Shoals to Tide Head approximately 400 fish spawning. (It was not considered as a very good spawning year.)

1951

May 12 — First bright salmon caught on the river at Flatlands, which is the earliest ever reported on the river for 50 years.

Spawners — Started around October 5.

Very few fish - especially in the lower stretches (Whites Brook - down).

1952

May 20 — First bright salmon was caught in the river around this date.

Sport Fishery

June — Water was in good condition and fishing was good in most sections.

July 14 — The water started to fall and the fishing dropped off and kept on doing so.

Spawners — Fish started to dig on the bars around October 2.

1953

Sport Fishery

May 16 — The first bright salmon was caught in the river at Flatlands (30 lbs.).

Very few fish entered the river in June until around the 20th.

After the forest budworm spraying, the Charlo Hatchery lost most of their salmon and trout fingerlings. Hatchery personnel attributed the loss to poison from this spray entering the water system from Charlo River.

Spawners — Of the 355 spawners collected, 329 survived and produced 1,800,000 eggs.

Along with the 26 dead salmon (spawners for Charlo), numerous dead parr and trout observed.

Possible cause of death: D.D.T. poisoning.

The death started after heavy rains. Thin film of apparently oil observed on quieter water.

Spawning Started around October 12 and was about completed by October 27.

More fish spawned than in the last three years.

1954

Sport Fishery

Federal Government issued permits to anyone, allowing them to take one black salmon per day. About 40 permits were issued. They were good up to and including the 24th of May. Fishing was confined to the lower river and permits were not valid on private or licensed water.

The bright fishing season did not open until June 5.

Due to high water level all summer long, only high water pools fished. Less grilse than usual.

Spawners Due to a hurricane on September 12, water raised seven feet. As a consequence, New Mills Pond lost all of its 416 salmon (dam torn out); and it was impossible to net fish from the Restigouche. No eggs from the Restigouche were then provided to the Charlo Hatchery. Eggs came from the Miramichi (1,500,000).

Based on redd counts only, it was considered a poor year, with the exception of the Patapedia River.