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**ANGLING CATCH AND EFFORT FOR ATLANTIC SALMON THE
MIRAMICHI RIVER AND SOUTHEASTERN NEW BRUNSWICK
(SFA 16) FROM 1969 TO 1994**

by

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¹This series documents the scientific basis for the evaluation of fisheries resources in Atlantic Canada. As such, it addresses the issues of the day in the time frames required and the documents it contains are not intended as definitive statements on the subjects addressed but rather as progress reports on ongoing investigations.

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¹La présente série documente les bases scientifiques des évaluations des ressources halieutiques sur la côte atlantique du Canada. Elle traite des problèmes courants selon les échéanciers dictés. Les documents qu'elle contient ne doivent pas être considérés comme des énoncés définitifs sur les sujets traités, mais plutôt comme des rapports d'étape sur les études en cours.

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Abstract

Moore, D.S., B. Dube, B. Hooper, and M. Biron. 1995. Angling catch and effort for Atlantic salmon on the Miramichi River from 1969 to 1994. DFO Atl. Fish. Res. Doc. 95/ , 55 p.

Angling data from three sources, Crown Reserve waters, Fishsys, and DFO Red Books are presented. On average angling catches have increased in recent years but these increases have been due to a large increase in angling effort whereas catches per rod day have decreased in many areas. Crown Reserve data were shown to have the most precision but coverage was limited to only the headwaters of the Northwest Miramichi River. Fishsys and DFO Red Book data offered coverage of the entire Miramichi River system. Fishsys and DFO Red Book data are evaluated and it was concluded that DFO Red Book angling data should not be used for the Miramichi River system.

Résumé

On présente ici des données sur la pêche à la ligne provenant de trois sources : les statistiques sur les Eaux de la Couronne réservées, le Fishsys et les livres rouges du MPO. En moyenne, les prises des pêcheurs à la ligne ont augmenté ces dernières années. Leur hausse est toutefois due à un fort accroissement de l'effort de pêche, et les prises à la ligne par jour de pêche ont diminué dans de nombreuses régions. Les données sur les Eaux de la Couronne réservées se sont avérées les plus précises, mais elles ne portaient que sur le cours supérieur de la partie nord-ouest de la Miramichi. En revanche, les données du Fishsys et des livres rouges du MPO visaient tout le réseau hydrographique de la Miramichi. Après évaluation des données de ces deux dernières sources, on conclut que celles des livres rouges ne devraient pas être utilisées pour ce qui est du réseau hydrographique de la Miramichi.

1.0 Introduction

There are three sources of angling data for the Miramichi drainage area. The first is angling statistics for Crown Angling Reserves collected and compiled by the New Brunswick Department of Natural Resources and Energy (DNRE). Crown Reserve waters occupy stretches of rivers only and data for them do not represent the total angling for any river in the Miramichi River system. Second is "Fishtsys" angling statistics collected and compiled by DNRE. These data are presented for complete rivers and combinations of rivers. Lastly, "DFO Red Book" statistics (they were published in DFO Red Books during the 1970's to early 1980's and have retained the name) collected and compiled by the federal Department of Fisheries and Oceans (DFO). These catches are presented for complete rivers and combinations of rivers. Crown Reserve stretches, rivers, and river systems referred to in the text and tables are shown detailed on a map of the Miramichi drainage area (Figure 1).

The Northwest Miramichi River System is comprised of the Northwest Miramichi River and its major tributaries which are the Little Southwest Miramichi River and the Sevogle River. The Southwest Miramichi River System is comprised of the Southwest Miramichi River and its major tributaries which are the Cains, Renous, and Dungarvon rivers.

Salmon Fishing Area 16 (SFA 16) is comprised of rivers flowing into the Gulf of St. Lawrence in Northumberland, Kent, and Westmorland counties of New Brunswick. In addition to the Miramichi River system, angling statistics are recorded by "Fishtsys" and "DFO Red Books" for the Bartibog and Tabusintac rivers in each year and for the Buctouche, Richibucto, Kouchibouguac, Black, and Napan rivers occasionally. Other small rivers in this area where a small amount of salmon angling may occur are not covered by either report.

2.0 Methods

2.1 Crown Reserve waters:

These angling data have been compiled annually since 1972. Crown angling reserves are stretches of river owned by the Province of New Brunswick which are leased to a limited number of anglers each day. Crown angling reserves provide anglers with an opportunity to fish in good to excellent salmon waters under relatively uncrowded, semi-wilderness conditions. Residents of New Brunswick apply in advance for use of Crown Reserves and an annual draw is held to choose successful applicants.

Catch and effort are estimated from creel census forms which all anglers fishing Crown Reserve waters are asked to complete. Responses are received from 85-95% of participants and monthly averages of catch and effort from these samples are used to estimate total monthly catch and effort for each stretch.

Angling quality on these areas is a good indicator of fish abundance in the headwaters of the Little Southwest Miramichi, Northwest Miramichi, and Sevogle Rivers (Figure 1). There are no Crown Reserve Waters on the Southwest Miramichi River or its tributaries.

2.2 Fishsys:

These catch and effort data have been compiled annually since 1969. Approximately 31% of licenced anglers, selected at random, have been mailed creel census questionnaires after the end of each angling season. Non-respondants have been sent out one reminder to mail in their questionnaires. Responses are received from approximately 58% of sampled anglers and these data are used to estimate catch and effort (unpub data).

2.3 DFO Red Book:

DFO catch and effort data have been compiled annually since 1951. Within each river, data for private waters (ie. areas where fishing rights are owned privately or leased from the province) are usually summarized monthly by individual camp operators and sent to local DFO Conservation and Protection staff. For public waters and private waters where camps do not send in their catch and effort data, estimates of catch and effort are made by the local DFO Conservation Officer based on observation and word of mouth.

2.4 Angling Seasons:

Open seasons for salmon angling on the Miramichi River System in 1994 are presented in Appendix I.

3.0 Results

3.1 Total Miramichi River System:

Crown Reserve Data:

All Crown Reserve waters on the Miramichi River system lie on the NW Miramichi River and its tributaries and angling data for Crown Reserve waters are reported and discussed with other NW Miramichi River angling.

Fishsys Data:

Preliminary data for 1994 indicate that angling catches were lower, especially for grilse during the kelt season, than in 1993 (Tables 1 and 2). Salmon kelt catches decreased 14% while bright salmon catches decreased by 37%. Grilse kelt catches decreased by 59% while bright grilse catches dropped by 34% from 1993. Mean catches of grilse and salmon for both the black and bright seasons were higher for 1989-93 than 1969-88 as total fishing effort (total rods) increased by 67%. CPUE (Catch per unit effort or catch per rod day) for black salmon increased (15%) and decreased (18%) for bright salmon. Black grilse CPUE decreased 12% while CPUE for bright grilse dropped by 30%.

DFO Red Book Data:

In 1994, total effort decreased 6% from the previous year but was 13% greater than mean effort for 1989-93 (Tables 3 and 4). The catch and CPUE of bright grilse in 1994 decreased 43-48% from 1993 and 36-42% from the mean 1989-93. Catches and CPUEs for black grilse were similar in 1993 and 1994. Average catches and CPUEs for black and bright grilse increased from 1969-88 to 1989-93. Red Book estimates of salmon catches have not been available for the Miramichi River system since the introduction of hook-and-release angling in 1984.

3.2 Northwest Miramichi River System:

Crown Reserve Data:

Changes in effort for Crown Reserve waters are determined by the number of stretches of water leased by DNRE each year since nearly all available rod days are utilized. CPUEs for bright salmon and grilse in 1994 were similar to CPUEs for the last 5 years (1989-93) and long term (1972-88) (Table 5).

CPUEs for salmon in 1994 were highest on the LSW Miramichi (0.07 fish per rod day) and Sevogle rivers (0.06 fish per rod day) while CPUEs for grilse were highest on the NW Miramichi (0.53 fish per rod day) and Sevogle rivers (0.43 fish per rod day) (Tables 6, 7, and 8).

Fishsys Data:

In 1994, the catches of salmon during the kelt season increased by 16% while catches during the bright season decreased by 15% from 1993 (Tables 9 and 10). Grilse catches in 1994 decreased from 1993 in both the kelt (73%) and bright (33%) seasons. Average catches of grilse and salmon during both the black and bright seasons were higher for 1989-93 than 1969-88. Higher catches were the result of an 86% increase in fishing effort whereas overall angling quality as measured by CPUE declined by 22-39%.

Within the Northwest Miramichi River system from 1993 to 1994 catches of bright salmon increased by 27% in the Northwest Miramichi River, decreased by 41% in the LSW Miramichi River and decreased by 65% in the Sevogle River (Tables 11 thru 16). Grilse catches decreased in all three rivers but decreased the most in the NW Miramichi (44%) and the least in the Sevogle River (3%). From 1972-88 to 1989-93 fishing effort increased from 81 (LSW Miramichi River) to 98 percent (Sevogle River). CPUEs for bright grilse have decreased 34 to 38% on all three rivers from 1969-88 to 1989-93. CPUEs for bright salmon decreased on the Sevogle and NW Miramichi rivers from 33 to 40% but remained the same on the LSW Miramichi River from 1969-88 thru 1989-93.

DFO Redbook Data:

In 1994, total effort increased 3%, CPUEs for bright salmon decreased 67%, and CPUEs for bright grilse increased by 58%, relative to 1993 (Tables 17 and 18). CPUEs for black salmon and

grilse increased substantially from 1993. CPUEs for black salmon and grilse approximately doubled from 1969-88 to 1989-93. Over the same period, CPUEs for bright salmon and grilse decreased by 9% and 64% respectively.

Within the NW Miramichi River system CPUEs for black salmon and grilse have been consistently high on the NW Miramichi River since the mid 1980's (Tables 19 and 20). CPUEs for bright salmon have been highest on the LSW Miramichi River (0.08 to 0.25) (Tables 19 thru 24). Bright grilse CPUEs have been highest on the NW and LSW Miramichi rivers.

3.3 Southwest Miramichi River System:

Fishsys Data:

Kelt catches decreased from 1993 to 1994 for both salmon (20%) and grilse (55%) (Tables 25 and 26). Bright season catches were also down in 1994, salmon by 45% and grilse by 34%. Average fishing effort (total rod days) increased by 60% from 1969-88 to 1989-93. Catches of grilse and salmon during both the black and bright seasons were higher for 1989-93 than 1969-88. Over the same period CPUEs for black salmon increased (24%) and decreased (17%) for bright salmon. Black grilse CPUEs have remained constant while CPUEs for bright grilse dropped by 31%.

Within the Southwest Miramichi River system in 1994, bright salmon catches were down 35% in the SW Miramichi River and 88 to 89% in the Cains and Renous+Dungarvon rivers relative to 1993 (Tables 27, 29, and 31). Grilse catches in 1994 were also down in all rivers relative 1993 with the largest decrease in the Cains (90%) and least in the SW Miramichi (37%) (Tables 28, 30, and 32). From 1976-93 average CPUEs for bright salmon were highest on the SW Miramichi and Cains rivers (0.1 to 0.14). Over the same period bright grilse CPUEs averaged 0.19 to 0.27 fish per rod day in the Renous-Dungarvon and SW Miramichi rivers whereas they were lower (0.13 to 0.19) on the Cains River.

DFO Redbook Data:

Total fishing effort in 1994 was 7% less than in 1993 (Table 33). DFO catch data for salmon has not been available for the SW Miramichi system since the introduction of hook-and-release angling for salmon in 1984 (Tables 35, 37, and 39). Grilse CPUE decreased 11% during the black season and 47% during the bright season from 1993 to 1994 (Table 34). Black season effort levels dropped from 1969-88 to 1989-93 as catches of grilse increased and CPUEs nearly tripled (Table 34). Total fishing effort on bright grilse remained constant while catches and CPUEs increased by 52 to 67% from 1969-88 to 1989-93.

Bright grilse CPUE in 1994 increased relative to 1993 on the

Renous-Dungarvon and Cains rivers but the increase on the Cains River occurred only because effort dropped from 564 to 38 rod days (Tables 36, 38 and 40). On the Southwest Miramichi River CPUE for bright grilse dropped by 54% from 1993 to 1994. Average CPUEs for grilse during the black and bright season have increased from 1970-88 to 1989-93 on each of the rivers within the SW Miramichi River system. The largest improvements have occurred on the Cains and Southwest Miramichi rivers where mean CPUEs have increased by 185 to 207% during the black season and 53 to 165% during the bright season.

3.4 Salmon Fishing Area 16 (Southeastern New Brunswick):

Fishsys Data:

Over 90% of the catch and effort for SFA 16 (Tables 41 thru 44) comes from the Miramichi River system (Tables 1 thru 4). Therefore trends in the data for SFA 16 are similar to trends for the Miramichi River system which have been reported earlier.

4.0 Discussion

O'Neil and Harvie (1993) evaluated the Nova Scotia angler licence stub system for estimating angling catch and found that in cases where responses were received from over 85% of anglers, the size of 90% confidence intervals of estimates was 10 to 20% of the estimate. All anglers fishing Crown Reserve waters are given creel census questionnaires and over 85% respond each year. Therefore, estimates of catch and effort from Crown Reserve waters on the Miramichi can be regarded as accurate. The Crown Reserve data show that catch and angling quality have not changed on average since 1970 in headwater areas of the Northwest Miramichi River system.

Fishsys angling data provide the best coverage of the Miramichi River system. Overall, the Fishsys data show that angling activity has increased by 67% in recent years and this increase has been greatest on the Northwest Miramichi River system where a larger proportion of the angling waters are open to the public. Catches have increased, but not as much as fishing effort, resulting in decreased angling success in most cases. Catch rates of bright grilse are approximately equal in the Northwest and Southwest Miramichi River systems. Catch rates of bright salmon are slightly higher in the SW Miramichi whereas catch rates of black salmon are highest in the NW Miramichi.

Fishsys has been shown to lack the precision of the Nova Scotia angling statistics, meaning that where angling catch is estimated by Fishsys, the size of the 90% confidence interval of the estimate is often larger than the estimate (O'Neil and Harvie 1993). A coefficient of precision (CP) of 25% or less, where CP is defined as the 90% confidence interval expressed as a percentage of the mean, is being sought in future years. In 1994, 70% (increased from 30% in previous years) of salmon licence holders will be sent

questionnaires to increase the level of precision in Fishsys and allow Fishsys estimates of catch and effort to be made for many of the smaller rivers in SFA 16.

DFO Red Book data from private waters where catch and effort data comes from camps should be similar to data from areas where a complete creel census is conducted. However the collection of catch data from camps has not occurred in all cases. Fishery officers who provide the catch estimates for public waters, which make up over half of the Miramichi, often work on surveillance of illegal fishing activities after dark and rely on word of mouth more than direct observation for estimates of legal catch during the day.

Since the DFO Red Book data cannot be evaluated statistically comparisons were made with the other data series available. On the Northwest Miramichi River system where Crown Reserve data are available, their estimated catch (headwater areas only) have been greater than DFO Red Book catch estimates (the entire river system) in each of the last 7 years (Tables 5 and 18). Mean effort and catch per year from DFO Red Books have been 5,578 rod days and 737 bright grilse as compared to 35,681 rod days and 6,116 bright grilse from Fishsys for the years 1989-93 (Tables 10 and 18). SW Miramichi River system data from DFO have averaged 33,802 rod days and 15,684 bright grilse compared to 83,631 rod days and 12,971 bright grilse from Fishsys for the years 1989-93 (Tables 26 and 34).

5.0 References

O'Neil, S.F. and C.J. Harvie 1993. Evaluation of the precision of catch data in the Nova Scotia Atlantic salmon catch-effort card system and feasibility of a New Brunswick application. DFO Atl. Fish. Res. Doc. 93/31, 34 p.

6.0 Published Data Sources

DFO Redbook Angling Statistics

O'Neil, S.F., D.A. Stewart, K. A. Newbould, and R. Pickard 1991. 1988 Atlantic salmon sport catch statistics - Maritime Provinces. Can. Data Rep. Fish. Aquat. Sci. 852, 79 p.

O'Neil, S.F., K. A. Newbould, and R. Pickard 1989. 1987 Atlantic salmon sport catch statistics - Maritime Provinces. Can. Data Rep. Fish. Aquat. Sci. 770, 73 p.

O'Neil, S.F., M. Bernard, P. Gallop, and R. Pickard 1987. 1986 Atlantic salmon sport catch statistics - Maritime Provinces. Can. Data Rep. Fish. Aquat. Sci. 663, 69 p.

O'Neil, S.F., M. Bernard, and J. Singer 1986. 1985 Atlantic salmon sport catch statistics - Maritime Provinces. Can. Data Rep. Fish. Aquat. Sci. 600, 71 p.

O'Neil, S.F., M. Bernard, and J. Singer 1985. 1984 Atlantic salmon sport catch statistics - Maritime Provinces. Can. Data Rep. Fish. Aquat. Sci. 530, 98 p.

O'Neil, S.F. and D.A.B. Swetnam 1984. Collation of Atlantic salmon sport catch statistics, Maritime Provinces, 1970-79. Can. Data Rep. Fish. Aquat. Sci. 481, 297 p.

Swetnam, D.A. and S.F. O'Neil 1984. Collation of Atlantic salmon sport catch statistics, Maritime Provinces, 1980-83. Can. Data Rep. Fish. Aquat. Sci. 450, 194 p.

Swetnam, D.A. and S.F. O'Neil 1985. Collation of Atlantic salmon sport catch statistics, Maritime Provinces, 1960-69. Can. Data Rep. Fish. Aquat. Sci. 533, 289 p.

7.0 Unpublished Data Sources

Crown Reserve Angling Statistics

available from: Province of New Brunswick
Department of Natural Resources and Energy
Newcastle, New Brunswick.

Fishsys Angling Statistics for New Brunswick

available from: Province of New Brunswick
Fish and Wildlife Branch
Department of Natural Resources and Energy
Fredericton, New Brunswick.

Table 1. Salmon catch and effort for the total Miramichi River System from DNRE Fishsys.

Salmon	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	1813	-	-	2382	1370	3752	-	-	69800
1970	1647	-	-	1799	1448	3247	-	-	62287
1971	1424	-	-	1487	299	1786	-	-	49215
1972	547	-	-	6973	1954	8927	-	-	65318
1973	2970	-	-	4527	1450	5977	-	-	67516
1974	3037	-	-	6272	895	7167	-	-	66661
1975	3111	-	-	4945	1342	6287	-	-	67280
1976	1446	5269	0.27	5942	1426	7368	66841	0.11	72110
1977	2756	7828	0.35	10364	1253	11617	65489	0.18	73317
1978	2126	5635	0.38	4121	770	4891	70035	0.07	75670
1979	1668	5625	0.30	2169	472	2641	67944	0.04	73569
1980	1504	6434	0.23	4623	1879	6502	58428	0.11	64862
1981	2118	5479	0.39	2384	844	3228	73368	0.04	78847
1982	1368	7587	0.18	3456	1152	4608	77157	0.06	84744
1983	960	4800	0.20	1830	380	2210	88640	0.02	93440
1984	731	1959	0.37	6253	1432	7686	56835	0.14	58794
1985	3771	4079	0.92	8410	1210	9620	61810	0.16	65889
1986	6851	7504	0.91	10087	4128	14215	66468	0.21	73972
1987	5099	10547	0.48	6618	5314	11932	65006	0.18	75553
1988	6700	5651	1.19	5291	4777	10068	80798	0.12	86449
1989	7374	5861	1.26	6559	5369	11928	73112	0.16	78973
1990	5641	15454	0.37	6055	3203	9258	122354	0.08	137808
1991	2997	11028	0.27	3946	2201	6147	109355	0.06	120383
1992	4564	10973	0.42	6758	2718	9476	121639	0.08	132612
1993	3967	8940	0.44	4842	3289	8131	117841	0.07	126781
1994	3403	9555	0.36	3246	1883	5129	113376	0.05	122931
Mean 69-88	2582	6031	0.48	4997	1690	6686	69140	0.11	71265
Mean 89-93	4909	10451	0.55	5632	3356	8988	108860	0.09	119311

Table 2. Grilse catch and effort for the total Miramichi River System from DNRE Fishsys.

Grilse	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	2497	-	-	18023	6261	24284	-	-	69800
1970	3719	-	-	13880	5728	19608	-	-	62287
1971	2375	-	-	11270	2451	13721	-	-	49215
1972	1500	-	-	16053	3048	19101	-	-	65318
1973	1538	-	-	12038	1819	13857	-	-	67516
1974	1512	-	-	16728	1505	18233	-	-	66661
1975	1760	-	-	13314	2284	15598	-	-	67280
1976	2316	5269	0.44	23342	3790	27132	66841	0.41	72110
1977	2380	7828	0.30	12546	1043	13589	65489	0.21	73317
1978	1401	5635	0.25	7355	909	8264	70035	0.12	75670
1979	1469	5625	0.26	12624	1849	14473	67944	0.21	73569
1980	2242	6434	0.35	9668	2317	11985	58428	0.21	64862
1981	1732	5479	0.32	19205	3506	22711	73368	0.31	78847
1982	2691	7587	0.35	19188	2169	21357	77157	0.28	84744
1983	2060	4800	0.43	7270	1040	8310	88640	0.09	93440
1984	1559	1959	0.80	15316	3475	18791	56835	0.33	58794
1985	2385	4079	0.58	17111	1326	18438	61810	0.30	65889
1986	2493	7504	0.33	20611	5542	26153	66468	0.39	73972
1987	2748	10547	0.26	14824	5941	20765	65006	0.32	75553
1988	4216	5651	0.75	17965	12621	30586	80798	0.38	86449
1989	5361	5861	0.91	17305	7077	24382	73112	0.33	78973
1990	4134	15454	0.27	15256	6116	21372	122354	0.17	137808
1991	2356	11028	0.21	7769	3531	11300	109355	0.10	120383
1992	2263	10973	0.21	16542	4940	21482	121639	0.18	132612
1993	2233	8940	0.25	11434	5464	16898	117841	0.14	126781
1994	925	9555	0.10	7831	3372	11203	113376	0.10	122931
Mean 69-88	2230	6031	0.42	14917	3431	18348	69140	0.27	71265
Mean 89-93	3269	10451	0.37	13661	5426	19087	108860	0.19	119311

Table 3. Salmon catch and effort for the total Miramichi River System from DFO Red Book data.

Salmon	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	6533	16585	0.39	2190	637	2827	35911	0.08	54240
1970	1940	-	-	1585	472	2057	-	-	42916
1971	1660	8238	0.20	1125	122	1247	22571	0.06	30809
1972	832	4998	0.17	4444	1012	5456	39957	0.14	44955
1973	5349	-	-	4191	690	4881	-	-	49061
1974	5746	-	-	5390	505	5895	-	-	63128
1975	4547	-	-	3353	430	3783	-	-	38628
1976	5110	-	-	4412	907	5319	-	-	59979
1977	11515	-	-	13031	1313	14344	-	-	80059
1978	5694	-	-	3564	632	4196	-	-	43377
1979	7360	-	-	1896	526	2422	-	-	41768
1980	4472	8400	0.53	3542	1880	5422	37188	0.15	45588
1981	6594	9232	0.71	1166	436	1602	34841	0.05	44073
1982	566	8260	0.07	2096	546	2642	38879	0.07	47139
1983	1442	5518	0.26	1314	332	1646	24679	0.07	30197
1984	771	3817	0.20	-	-	-	28589	-	32406
1985	-	6863	-	-	-	-	33159	-	40022
1986	-	6273	-	-	-	-	51745	-	59451
1987	-	5726	-	-	-	-	34112	-	41069
1988	-	5308	-	-	-	-	35453	-	42171
1989	-	7319	-	-	-	-	31111	-	38430
1990	-	5279	-	-	-	-	27047	-	32326
1991	-	6004	-	-	-	-	29145	-	35149
1992	-	6034	-	-	-	-	37620	-	43754
1993	-	6792	-	-	-	-	40550	-	47342
1994	-	6314	-	-	-	-	37795	-	44545
Mean 69-88	4383	7435	0.32	3553	696	4249	34757	0.09	46552
Mean 89-93	-	6286	-	-	-	-	33095	-	39400

Table 4. Grilse catch and effort for the total Miramichi River System from DFO Red Book data.

Grilse	Kelt Season			Bright Season				Total Rod	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	410	16585	0.02	22410	4305	26715	37655	0.71	54240
1970	4217	-	-	16480	3182	19662	-	-	42916
1971	2670	8238	0.32	7556	908	8464	22571	0.37	30809
1972	1479	4998	0.30	12794	2678	15472	39957	0.39	44955
1973	1836	-	-	7857	1176	9033	-	-	49061
1974	2359	-	-	16861	1096	17957	-	-	63128
1975	1274	-	-	8877	853	9730	-	-	38628
1976	3669	-	-	13169	1580	14749	-	-	59979
1977	10119	-	-	7469	775	8244	-	-	80059
1978	1877	-	-	4723	630	5353	-	-	43377
1979	1217	-	-	6252	1373	7625	-	-	41768
1980	1563	8400	0.19	5853	1680	7533	37188	0.20	45588
1981	2266	9232	0.25	5547	1484	7031	34841	0.20	44073
1982	879	8260	0.11	7731	1486	9217	38879	0.24	47139
1983	1306	5518	0.24	3174	723	3897	24679	0.16	30197
1984	644	3817	0.17	7962	1930	9892	28589	0.35	32406
1985	3531	6863	0.51	8746	3180	11926	33159	0.36	40022
1986	1447	6273	0.23	14639	13660	28299	53178	0.53	59451
1987	2896	5740	0.50	7400	3963	11363	35329	0.32	41069
1988	4066	5326	0.76	5760	7972	13732	36845	0.37	42171
1989	5819	7319	0.80	5979	6686	12665	31111	0.41	38430
1990	4501	5279	0.85	7145	4439	11584	27047	0.43	32326
1991	3810	6004	0.63	4684	4772	9456	29145	0.32	35149
1992	4994	6034	0.83	9641	14295	23936	37720	0.63	43754
1993	5094	6792	0.75	8381	10391	18772	40550	0.46	47342
1994	4932	6750	0.73	6834	3002	9836	37795	0.26	44545
Mean 69-88	2486	7438	0.30	9563	2732	12295	35239	0.35	46552
Mean 89-93	4844	6286	0.77	7166	8117	15283	33115	0.45	39400

Table 5. Catch and effort for the Miramichi System Crown Reserve Waters from DNRE.
 (Note that catches for hook and release stretches on North Pole Stream are not included)

	Small Kept	Small Released	Large	Effort	CPUE Small	CPUE Large
1972	1268	-	267	2705	0.47	0.10
1973	1210	-	138	2648	0.46	0.05
1974	1259	-	121	2940	0.43	0.04
1975	1391	-	125	2694	0.52	0.05
1976	1280	-	157	2791	0.46	0.06
1977	1120	-	266	2719	0.41	0.10
1978	594	-	170	2575	0.23	0.07
1979	1147	-	79	2448	0.47	0.03
1980	1306	-	159	2835	0.46	0.06
1981	1953	-	89	2885	0.68	0.03
1982	1816	0	134	2203	0.82	0.06
1983	823	0	167	2269	0.36	0.07
1984	1240	0	229	2179	0.57	0.11
1985	1419	144	206	2268	0.69	0.09
1986	1565	111	156	2456	0.68	0.06
1987	981	91	88	1839	0.58	0.05
1988	1722	138	102	2432	0.76	0.04
1989	1403	192	127	2535	0.63	0.05
1990	1443	144	144	2502	0.63	0.06
1991	567	45	77	2395	0.26	0.03
1992	1214	209	94	2364	0.60	0.04
1993	1251	175	135	2432	0.59	0.06
1994	1041	193	130	2342	0.53	0.06
mean 89-93	1176	153	115	2446	0.54	0.05
mean 72-88	1300	28	156	2523	0.53	0.06

Table 6. Catch and effort for LSW Miramichi River Crown Reserve stretches from DNRE.

Little Southwest Miramichi River Crown Reserve Stretches

Small Kept	Small Released	Large	Effort	CPUE Small	CPUE Large
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North Pole Stream Hook and Release Stretches

Small Released	Large	Effort	CPUE Small	CPUE Large
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Year	Value A	Value B	Value C	Value D	Value E	Value F
1972	429	0	117	1171	0.37	0.1
1973	483	0	75	934	0.52	0.0
1974	323	0	49	1012	0.32	0.0
1975	431	0	39	963	0.45	0.0
1976	384	0	55	936	0.41	0.0
1977	353	0	87	982	0.36	0.0
1978	177	0	73	877	0.20	0.0
1979	247	0	33	896	0.28	0.0
1980	274	0	45	1032	0.27	0.0
1981	388	0	27	955	0.41	0.0
1982	224	0	23	431	0.52	0.0
1983	118	0	20	476	0.25	0.0
1984	181	0	59	437	0.41	0.1
1985	261	12	47	448	0.58	0.1
1986	182	12	19	546	0.33	0.0
1987	144	8	6	381	0.38	0.0
1988	269	9	7	510	0.53	0.0
1989	203	36	16	560	0.36	0.0
1990	204	35	34	555	0.37	0.0
1991	49	0	31	513	0.10	0.0
1992	129	36	18	484	0.27	0.0
1993	131	44	28	540	0.24	0.0
1994	147	48	38	529	0.28	0.0

mean 89-93 143 30 25 530 0.27 0.05
 mean 72-88 286 2 46 764 0.39 0.06

Upper Stretch | SW Miramichi or Charlie's Rock 1972-94

Lower Stretch LSW Miramichi 1972 and 1979

Upper Stretch North Pole Stream 1972-81

Lower Stretch North Pole Stream or Pallisades 1972-81 then hook and release 1982-94

N. Branch LSW Miramichi or Adam's Pool Stretch 1980-94

Table 7. Catch and effort for the Sevogle River Crown Reserve stretches

	Small Kept	Small Released	Large	Effort	CPUE Small	CPUE Large
1972	579	0	116	951	0.61	0.12
1973	311	0	60	1001	0.31	0.06
1974	402	0	37	1086	0.37	0.03
1975	296	0	42	889	0.33	0.05
1976	362	0	72	981	0.37	0.07
1977	301	0	99	937	0.32	0.11
1978	160	0	65	949	0.17	0.07
1979	265	0	24	706	0.38	0.03
1980	250	0	65	758	0.33	0.09
1981	541	0	15	773	0.70	0.02
1982	535	0	53	739	0.72	0.07
1983	205	0	76	732	0.28	0.10
1984	362	0	87	714	0.51	0.12
1985	372	15	59	656	0.57	0.09
1986	402	35	79	760	0.53	0.10
1987	321	35	46	601	0.53	0.08
1988	513	6	55	817	0.63	0.07
1989	455	29	49	853	0.53	0.06
1990	419	26	51	824	0.51	0.06
1991	165	9	14	792	0.21	0.02
1992	313	32	27	794	0.39	0.03
1993	332	20	35	747	0.44	0.05
1994	305	37	41	710	0.43	0.06
mean 89-93	337	23	35	802	0.42	0.04
mean 72-88	363	5	62	826	0.45	0.08

Sevogle River Crown Reserve Stretches included above:

N. Branch Sevogle River Upper Stretch or Squirrel Falls 1972-94

N. Branch Sevogle River Middle Stretch or Narrows 1972-94

N. Branch Sevogle River Lower Stretch or Groundhog Landing 1972-94

Big Sevogle River Stretch 1972-79

Table 8. Catch and effort for the NW Miramichi River Crown Reserve stretches

	Small Kept	Small Released	Large	Effort	CPUE Small	CPUE Large
1972	260	0	34	583	0.45	0.06
1973	416	0	3	713	0.58	0.00
1974	534	0	35	842	0.63	0.04
1975	664	0	44	842	0.79	0.05
1976	534	0	30	874	0.61	0.03
1977	466	0	80	800	0.58	0.10
1978	257	0	32	749	0.34	0.04
1979	638	0	22	846	0.75	0.03
1980	782	0	49	1045	0.75	0.05
1981	1024	0	47	1157	0.89	0.04
1982	1057	0	58	1033	1.02	0.06
1983	500	0	71	1061	0.47	0.07
1984	697	0	83	1028	0.68	0.08
1985	786	117	100	1165	0.67	0.09
1986	981	64	58	1150	0.85	0.05
1987	516	48	36	857	0.60	0.04
1988	940	123	40	1105	0.85	0.04
1989	745	127	62	1122	0.66	0.06
1990	820	83	59	1123	0.73	0.05
1991	353	36	32	1090	0.32	0.03
1992	772	141	49	1086	0.71	0.05
1993	788	111	72	1145	0.69	0.06
1994	589	108	51	1103	0.53	0.05
mean 89-93	696	100	55	1113	0.62	0.05
mean 72-88	650	21	48	932	0.68	0.05

Northwest Miramichi Crown Reserve Stretches included above:

Upper or Crawford Stretch 1972-94

Middle or Depot Stretch 1972-94

Lower or Elbow Stretch 1972-94

Stony Brook Stretch above Elbow Stretch 1980-94

Table 9. Salmon catch and effort for Northwest Miramichi River System from DNRE Fishsys.

Salmon	Kelt Season			Bright Season					Total Rods
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	116	-	-	370	114	484	-	-	15230
1970	414	-	-	394	90	484	-	-	12730
1971	207	-	-	364	55	419	-	-	10443
1972	137	-	-	1129	146	1275	-	-	12942
1973	402	-	-	862	46	908	-	-	14830
1974	438	-	-	1327	68	1395	-	-	13112
1975	540	-	-	1195	106	1301	-	-	16022
1976	249	911	0.27	1332	43	1375	13583	0.10	14494
1977	397	1017	0.39	2349	73	2422	15982	0.15	16999
1978	327	1070	0.31	719	36	755	15527	0.05	16597
1979	197	1265	0.16	623	53	676	19061	0.02	20326
1980	130	724	0.18	1243	229	1472	16594	0.09	17318
1981	349	669	0.52	942	95	1037	25175	0.04	25844
1982	207	891	0.23	999	99	1098	27909	0.04	28800
1983	190	620	0.31	660	40	700	30770	0.02	31390
1984	248	220	1.13	2636	192	2828	16505	0.17	16725
1985	653	442	1.48	2926	172	3098	23041	0.13	23483
1986	931	933	1.00	3259	577	3836	25355	0.17	26288
1987	659	748	0.86	1705	383	2088	22891	0.09	23639
1988	1186	406	2.92	2248	834	3082	25186	0.12	25592
1989	856	785	0.94	2098	707	2805	22104	0.13	22889
1990	1176	3254	0.33	1766	463	2229	35654	0.06	38908
1991	523	1683	0.31	1189	344	1533	34641	0.04	36324
1992	630	1635	0.39	1587	207	1794	37263	0.05	38898
1993	592	1473	0.34	1753	433	2186	39912	0.05	41385
1994	687	1861	0.34	1412	456	1868	39471	0.05	41332
Mean 69-88	399	763	0.75	1364	173	1537	21352	0.09	19140
Mean 89-93	755	1766	0.46	1679	431	2109	33915	0.07	35681

Table 10. Grilse catch and effort for Northwest Miramichi River System from DNRE Fishsys.

Grilse	Kelt Season			Bright Season			Total Rods		
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	727	-	-	3936	499	4435	-	-	15230
1970	810	-	-	4258	488	4746	-	-	12730
1971	472	-	-	2749	151	2900	-	-	10443
1972	291	-	-	3357	285	3642	-	-	12942
1973	221	-	-	3117	194	3311	-	-	14830
1974	213	-	-	3785	165	3950	-	-	13112
1975	393	-	-	3153	163	3316	-	-	16022
1976	328	911	0.36	4796	249	5045	13483	0.37	14494
1977	355	1017	0.35	3653	62	3715	15982	0.23	16999
1978	362	1070	0.34	2190	42	2232	15527	0.14	16597
1979	365	1265	0.29	4765	197	4962	31031	0.16	20326
1980	229	724	0.32	3943	359	4302	16594	0.26	17318
1981	200	669	0.30	8149	609	8758	25175	0.34	25844
1982	423	891	0.47	9081	351	9432	27909	0.34	28800
1983	350	620	0.56	3630	190	3820	30770	0.12	31390
1984	524	220	2.38	5717	247	5964	16505	0.36	16725
1985	288	442	0.65	9258	172	9430	23041	0.41	23483
1986	223	933	0.24	8418	1119	9537	22706	0.42	26288
1987	266	748	0.35	6184	911	7095	22858	0.31	23639
1988	693	406	0.37	8061	1772	9833	25186	0.39	25592
1989	655	785	0.72	6492	1076	7568	21905	0.35	22889
1990	781	3254	0.25	5877	948	6825	35511	0.19	38908
1991	382	1683	0.23	2472	584	3056	34715	0.09	36324
1992	264	1635	0.16	6333	627	6960	37146	0.19	38898
1993	433	1473	0.29	5199	972	6171	39776	0.14	41385
1994	115	1861	0.29	3456	675	4131	39471	0.10	41332
Mean 69-88	387	763	0.54	5110	411	5521	22059	0.30	19140
Mean 89-93	503	1766	0.33	5275	841	6116	33811	0.19	35681

Table 11. Salmon catch and effort for the Little Southwest Miramichi River from DNRE Fishsys.

Salmon	Kelt Season			Bright Season				Total Rod	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	0	-	-	200	58	258	-	-	6345
1970	216	-	-	208	71	279	-	-	6613
1971	90	-	-	173	13	186	-	-	5285
1972	76	-	-	401	46	447	-	-	5937
1973	114	-	-	321	13	334	-	-	6186
1974	174	-	-	607	23	630	-	-	5047
1975	254	-	-	418	0	418	-	-	6423
1976	135	482	0.28	591	14	605	5959	0.10	6441
1977	73	156	0.47	606	21	627	5305	0.12	5461
1978	143	514	0.28	250	0	250	5315	0.05	5829
1979	91	549	0.17	304	38	342	8051	0.04	8600
1980	107	286	0.37	268	76	344	5340	0.06	5626
1981	156	394	0.40	244	44	288	9557	0.03	9951
1982	54	180	0.30	153	0	153	6525	0.02	6705
1983	0	0	0.00	140	20	160	11050	0.01	11050
1984	248	82	3.02	800	96	896	4669	0.19	4751
1985	288	385	0.75	770	19	789	7006	0.11	7391
1986	241	336	0.72	1302	301	1603	10678	0.15	11014
1987	214	270	0.79	437	143	580	8140	0.07	8410
1988	351	137	2.56	655	453	1108	10839	0.10	10976
1989	490	366	1.34	507	463	970	8322	0.12	8688
1990	578	1751	0.33	761	278	1039	13556	0.08	15307
1991	198	553	0.36	568	235	803	13050	0.06	13603
1992	187	617	0.30	579	139	718	11753	0.06	12370
1993	219	611	0.36	663	250	913	14555	0.06	15166
1994	251	515	0.49	356	184	540	13422	0.04	13937
Mean 69-88	151	290	0.78	442	72	515	7572	0.08	7202
Mean 89-93	334	780	0.54	616	273	889	12247	0.08	13027

Table 12. Grilse catch and effort for the Little Southwest Miramichi River from DNRE Fishsys.

Grilse	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	315	-	-	1703	169	1872	-	-	6345
1970	384	-	-	2767	343	3110	-	-	6613
1971	213	-	-	1238	52	1290	-	-	5285
1972	165	-	-	1555	151	1706	-	-	5937
1973	67	-	-	1405	120	1525	-	-	6186
1974	84	-	-	1473	63	1536	-	-	5047
1975	147	-	-	1417	41	1458	-	-	6423
1976	150	482	0.31	2266	121	2387	5959	0.40	6441
1977	31	156	0.20	1242	31	1273	5305	0.24	5461
1978	107	514	0.21	824	12	836	5315	0.16	5829
1979	83	549	0.15	1845	114	1959	8051	0.24	8600
1980	76	286	0.27	1160	76	1236	5340	0.23	5626
1981	148	394	0.38	2342	163	2505	9557	0.26	9951
1982	63	180	0.35	1854	72	1926	6525	0.30	6705
1983	40	0	-	1390	100	1490	11050	0.13	11050
1984	331	82	4.04	1657	82	1739	4669	0.37	4751
1985	134	385	0.35	2521	57	2578	7006	0.37	7391
1986	60	336	0.18	3105	629	3734	10678	0.35	11014
1987	98	270	0.36	2350	411	2761	8140	0.34	8410
1988	140	137	1.02	2811	1062	3873	10839	0.36	10976
1989	323	366	0.88	1995	665	2660	8322	0.32	8688
1990	391	1751	0.22	1725	359	2084	13556	0.15	15307
1991	136	553	0.25	823	344	1167	13050	0.09	13603
1992	93	617	0.15	1845	381	2226	11753	0.19	12370
1993	179	611	0.29	1647	605	2252	14555	0.15	15166
1994	34	515	0.07	1212	437	1649	13422	0.12	13937
Mean 69-88	142	290	0.65	1846	193	2040	7572	0.29	7202
Mean 89-93	224	780	0.36	1607	471	2078	12247	0.18	13027

Table 13. Salmon catch and effort for the Northwest Miramichi River from DNRE Fishsys.

Salmon	Kelt Season			Bright Season				Total Rod	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	116	-	-	133	56	189	-	-	7846
1970	198	-	-	179	19	198	-	-	5505
1971	112	-	-	178	42	220	-	-	4446
1972	61	-	-	478	89	567	-	-	5441
1973	288	-	-	421	33	454	-	-	7421
1974	264	-	-	551	45	596	-	-	6022
1975	270	-	-	671	106	777	-	-	8624
1976	107	429	0.25	691	29	720	6635	0.11	7064
1977	324	861	0.38	1566	52	1618	9468	0.17	10329
1978	184	556	0.33	433	24	457	8942	0.05	9498
1979	106	716	0.15	274	15	289	9356	0.03	10072
1980	23	438	0.05	837	115	952	9548	0.10	9986
1981	193	275	0.70	587	29	616	12643	0.05	12918
1982	153	711	0.22	684	90	774	17676	0.04	18387
1983	170	620	0.27	390	20	410	15990	0.03	16610
1984	0	138	0.00	1436	96	1532	9668	0.16	9806
1985	365	57	6.40	1559	96	1655	13071	0.13	13128
1986	690	597	1.16	1449	207	1656	9606	0.17	10203
1987	437	478	0.91	965	214	1179	11033	0.11	11511
1988	835	269	3.10	1289	335	1624	10996	0.15	11265
1989	358	419	0.85	1267	157	1424	10387	0.14	10806
1990	598	1503	0.40	805	176	981	17910	0.05	19413
1991	325	1109	0.29	526	87	613	18304	0.03	19413
1992	416	960	0.43	847	59	906	19773	0.05	20733
1993	373	825	0.45	825	132	957	20995	0.05	21820
1994	436	1215	0.36	952	266	1218	22145	0.06	23360
Mean 69-88	245	473	1.07	739	86	824	11126	0.10	9804
Mean 89-93	414	963	0.49	854	122	976	17474	0.06	18437

Table 14. Grilse catch and effort for the Northwest Miramichi River from DNRE Fishsys.

Grilse	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	412	-	-	1709	264	1973	-	-	7846
1970	426	-	-	1282	138	1420	-	-	5505
1971	259	-	-	1198	99	1297	-	-	4446
1972	126	-	-	1257	116	1373	-	-	5441
1973	154	-	-	1451	74	1525	-	-	7421
1974	129	-	-	1733	96	1829	-	-	6022
1975	246	-	-	1441	106	1547	-	-	8624
1976	178	429	0.41	2123	107	2230	6635	0.34	7064
1977	324	861	0.38	2119	31	2150	9468	0.23	10329
1978	255	556	0.46	1247	30	1277	8942	0.14	9498
1979	282	716	0.39	2249	83	2332	9356	0.25	10072
1980	153	438	0.35	2429	222	2651	9548	0.28	9986
1981	52	275	0.19	4469	290	4759	12643	0.38	12918
1982	360	711	0.51	5508	234	5742	17676	0.32	18387
1983	310	620	0.50	1900	90	1990	15990	0.12	16610
1984	193	138	1.40	2969	96	3065	9668	0.32	9806
1985	154	57	2.70	5024	115	5139	13071	0.39	13128
1986	163	597	0.27	3726	327	4053	9606	0.42	10203
1987	151	478	0.32	2860	411	3271	11033	0.30	11511
1988	546	269	2.03	4109	601	4710	10996	0.43	11265
1989	332	419	0.79	3193	245	3438	10387	0.33	10806
1990	390	1503	0.26	3273	499	3772	17910	0.21	19413
1991	239	1109	0.22	1360	190	1550	18304	0.08	19413
1992	171	960	0.18	3228	167	3395	19773	0.17	20733
1993	209	825	0.25	2900	316	3216	20995	0.15	21820
1994	64	1215	0.05	1606	191	1797	22145	0.08	23360
Mean 69-88	244	473	0.76	2540	177	2717	11126	0.30	9804
Mean 89-93	268	963	0.34	2791	283	3074	17474	0.19	18437

Table 15. Salmon catch and effort for the Sevogle River from DNRE Fishsys.

Salmon	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	0	-	-	37	0	37	-	-	1039
1970	0	-	-	7	0	7	-	-	612
1971	5	-	-	13	0	13	-	-	712
1972	0	-	-	250	11	261	-	-	1564
1973	0	-	-	120	0	120	-	-	1223
1974	0	-	-	169	0	169	-	-	2043
1975	16	-	-	106	0	106	-	-	975
1976	7	0	-	50	0	50	989	0.05	989
1977	0	0	-	177	0	177	1209	0.15	1209
1978	0	0	-	36	12	48	1270	0.04	1270
1979	0	0	-	45	0	45	1654	0.03	1654
1980	0	0	-	138	38	176	1706	0.10	1706
1981	0	0	-	111	22	133	2975	0.04	2975
1982	0	0	-	162	9	171	3708	0.05	3708
1983	20	0	-	130	0	130	3730	0.03	3730
1984	0	0	-	400	0	400	2168	0.18	2168
1985	0	0	-	597	57	654	2964	0.22	2964
1986	0	0	-	508	69	577	5071	0.11	5071
1987	8	0	-	303	26	329	3718	0.09	3718
1988	0	0	-	304	46	350	3351	0.10	3351
1989	8	0	-	324	87	411	3395	0.12	3395
1990	0	0	-	200	9	209	4188	0.05	4188
1991	0	21	0.00	95	22	117	3287	0.04	3308
1992	27	58	0.47	161	9	170	5737	0.03	5795
1993	0	37	0.00	265	51	316	4362	0.07	4399
1994	0	131	0.00	104	6	110	3904	0.03	4035
Mean 69-88	3	-	-	183	15	198	2655	0.09	2134
Mean 89-93	7	23	0.09	209	36	245	4194	0.06	4217

Table 16. Grilse catch and effort for the Sevogle River from DNRE Fishsys.

Grilse	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	0	-	-	524	66	590	-	-	1039
1970	0	-	-	209	7	216	-	-	612
1971	0	-	-	313	0	313	-	-	712
1972	0	-	-	545	18	563	-	-	1564
1973	0	-	-	261	0	261	-	-	1223
1974	0	-	-	579	6	585	-	-	2043
1975	0	-	-	295	16	311	-	-	975
1976	0	0	-	407	21	428	989	0.43	989
1977	0	0	-	292	0	292	1209	0.24	1209
1978	0	0	-	119	0	119	1270	0.09	1270
1979	0	0	-	671	0	671	1654	0.41	1654
1980	0	0	-	354	61	415	1706	0.24	1706
1981	0	0	-	1338	156	1494	2975	0.50	2975
1982	0	0	-	1719	45	1764	3708	0.48	3708
1983	0	0	-	340	0	340	3730	0.09	3730
1984	0	0	-	1091	69	1160	2168	0.54	2168
1985	0	0	-	1713	0	1713	2964	0.58	2964
1986	0	0	-	1587	163	1750	5071	0.35	5071
1987	17	0	-	974	89	1063	3718	0.29	3718
1988	7	0	-	1141	109	1250	3351	0.37	3351
1989	0	0	-	1304	166	1470	3395	0.43	3395
1990	0	0	-	879	90	969	4188	0.23	4188
1991	7	21	0.33	289	50	339	3287	0.10	3308
1992	0	58	0.00	1260	79	1339	5737	0.23	5795
1993	45	37	1.22	652	51	703	4362	0.16	4399
1994	17	131	0.13	638	47	685	3904	0.18	4035
Mean 69-88	1	-	-	724	41	765	2655	0.35	2134
Mean 89-93	10	23	0.31	877	87	964	4194	0.23	4217

Table 17. Salmon catch and effort for the Northwest Miramichi River System from DFO Red Book data.

Salmon	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	2936	6305	0.47	480	59	539	10416	0.05	16721
1970	193	-	-	378	35	413	-	-	10981
1971	83	1630	0.05	217	0	217	5304	0.04	6934
1972	118	855	0.14	619	74	693	8068	0.09	8923
1973	636	-	-	586	37	623	-	-	10308
1974	535	-	-	1237	35	1272	-	-	15310
1975	165	1775	0.09	440	30	470	7525	0.06	9300
1976	540	-	-	1070	26	1096	-	-	17239
1977	505	2280	0.22	2496	45	2541	11818	0.22	14098
1978	445	1795	0.25	924	79	1003	8340	0.12	10135
1979	213	-	-	583	66	649	-	-	7753
1980	139	404	0.34	617	151	768	8275	0.09	8679
1981	135	389	0.35	335	118	453	6352	0.07	6741
1982	84	668	0.13	450	79	529	9021	0.06	9689
1983	85	500	0.17	453	55	508	7220	0.07	7720
1984	66	240	0.28	974	155	1129	7245	0.16	7485
1985	-	934	-	658	170	828	5715	0.14	6649
1986	715	474	1.51	739	590	1329	5714	0.23	7621
1987	359	756	0.47	286	397	897	4361	0.21	6348
1988	419	818	0.51	127	280	407	4446	0.09	6674
1989	828	992	0.83	345	84	429	4941	0.09	5933
1990	860	1067	0.81	415	149	564	6498	0.09	7565
1991	586	1193	0.49	138	76	214	4339	0.05	5532
1992	602	879	0.68	342	114	456	3336	0.14	4215
1993	649	1000	0.65	366	65	431	3644	0.12	4644
1994	458	293	1.56	137	44	181	4061	0.04	4790
Mean 69-88	441	1322	0.36	683	124	818	7321	0.11	9765
Mean 89-93	705	1026	0.69	321	98	419	4552	0.10	5578

Note that catch and effort are incomplete in some years.

Table 18. Grilse catch and effort for the Northwest Miramichi River System from DFO Red Book data.

Grilse	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	0	6305	0.00	7676	476	8152	10416	0.78	16721
1970	740	-	-	5929	254	6183	-	-	10981
1971	770	1630	0.47	2764	0	2764	5304	0.52	6934
1972	194	855	0.23	5543	250	5793	8068	0.72	8923
1973	474	-	-	3046	115	3161	-	-	10308
1974	855	-	-	6458	104	6562	-	-	15310
1975	165	1775	0.09	2055	107	2162	7525	0.29	9300
1976	1380	-	-	3257	88	3345	-	-	17239
1977	1220	2280	0.54	3132	55	3187	11818	0.27	14098
1978	610	1795	0.34	1086	75	1161	8340	0.14	10135
1979	96	-	-	1658	117	1775	-	-	7753
1980	115	404	0.28	1850	133	1983	8275	0.24	8679
1981	112	389	0.29	1385	178	1563	6352	0.25	6741
1982	238	668	0.36	3152	526	3678	9021	0.41	9689
1983	149	500	0.30	1903	240	2143	7220	0.30	7720
1984	101	240	0.42	3106	438	3544	7245	0.49	7485
1985	683	934	0.73	2390	456	2846	5715	0.50	6649
1986	312	474	0.66	4679	1870	6549	7147	0.92	7621
1987	658	770	0.85	1425	1190	2615	5578	0.47	6348
1988	782	836	0.94	842	1406	2248	5838	0.39	6674
1989	1357	992	1.37	537	127	664	4941	0.13	5933
1990	1207	1067	1.13	1048	215	1263	6498	0.19	7565
1991	877	1193	0.74	275	111	386	4339	0.09	5532
1992	497	879	0.57	516	164	680	3336	0.20	4215
1993	524	1000	0.52	578	115	693	3644	0.19	4644
1994	703	729	0.96	931	286	1217	4061	0.30	4790
Mean 69-88	483	1324	0.43	3167	404	3571	7591	0.44	9765
Mean 89-93	892	1026	0.86	591	146	737	4552	0.16	5578

Note that catch and effort are incomplete in some years.

Table 19. Salmon catch and effort for the Northwest Miramichi River from DFO Red Book data.

Salmon	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	1136	2990	0.38	162	26	188	4341	0.04	7331
1970	55	-	-	134	12	146	-	-	4508
1971	33	670	0.05	54	0	54	1914	0.03	2584
1972	65	387	0.17	182	26	208	2420	0.09	2807
1973	277	-	-	271	23	294	-	-	5146
1974	342	1344	0.25	447	9	456	4350	0.10	5694
1975	80	1225	0.07	210	15	225	2820	0.08	4045
1976	405	-	-	292	14	306	-	-	8272
1977	380	1600	0.24	1060	25	1085	6078	0.18	7678
1978	345	1175	0.29	254	35	289	3425	0.08	4600
1979	132	-	-	283	32	315	-	-	3270
1980	93	246	0.38	282	60	342	3362	0.10	3608
1981	93	230	0.40	165	50	215	2721	0.08	2951
1982	71	548	0.13	190	37	227	4644	0.05	5192
1983	52	365	0.14	328	25	353	3335	0.11	3700
1984	45	177	0.25	555	82	637	3470	0.18	3647
1985	-	410	-	503	75	578	2695	0.21	3105
1986	700	307	2.28	622	480	1102	3537	0.31	3844
1987	229	390	0.59	192	260	452	2973	0.15	3363
1988	249	393	0.63	69	230	299	3128	0.10	3521
1989	625	520	1.20	68	34	102	2830	0.04	3350
1990	634	629	1.01	96	43	139	3430	0.04	4059
1991	426	338	1.26	27	11	38	796	0.05	1134
1992	408	289	1.41	102	40	142	792	0.18	1081
1993	460	480	0.96	116	23	139	998	0.14	1478
1994	458	293	1.56	88	29	117	1230	0.10	1523
Mean 69-88	252	779	0.42	313	76	389	3451	0.12	4443
Mean 89-93	511	451	1.17	82	30	112	1769	0.09	2220

Table 20. Grilse catch and effort for the Northwest Miramichi River from DFO Red Book data.

Grilse	Kelt Season			Early	Late	Total	Rod's	CPUE	Total Rod's
	Catch	Rods	CPUE						
1969	0	2990	0.00	2200	168	2368	4341	0.55	7331
1970	320	-	-	1550	70	1620	-	-	4508
1971	280	670	0.42	784	0	784	1914	0.41	2584
1972	15	387	0.04	1377	68	1445	2420	0.60	2807
1973	358	-	-	1658	60	1718	-	-	5146
1974	740	1344	0.55	2372	39	2411	4350	0.55	5694
1975	125	1225	0.10	820	60	880	2820	0.31	4045
1976	1005	-	-	1290	53	1343	-	-	8272
1977	945	1600	0.59	1790	20	1810	6078	0.30	7678
1978	430	1175	0.37	406	37	443	3425	0.13	4600
1979	58	-	-	866	40	906	-	-	3270
1980	54	246	0.22	955	72	1027	3362	0.31	3608
1981	52	230	0.23	740	92	832	2721	0.31	2951
1982	203	548	0.37	1755	250	2005	4644	0.43	5192
1983	90	365	0.25	965	60	1025	3335	0.31	3700
1984	61	177	0.34	2037	92	2129	3470	0.61	3647
1985	380	410	0.93	1195	84	1279	2695	0.47	3105
1986	200	307	0.65	2348	1200	3548	3537	1.00	3844
1987	433	390	1.11	580	700	1280	2973	0.43	3363
1988	482	393	1.23	218	800	1018	3128	0.33	3521
1989	1069	520	2.06	156	57	213	2830	0.08	3350
1990	908	629	1.44	448	68	516	3430	0.15	4059
1991	737	338	2.18	109	30	139	796	0.17	1134
1992	401	289	1.39	262	79	341	792	0.43	1081
1993	429	480	0.89	288	52	340	998	0.34	1478
1994	482	293	1.65	257	52	309	1230	0.25	1523
Mean 69-88	312	779	0.46	1295	198	1494	3451	0.44	4443
Mean 89-93	709	451	1.59	253	57	310	1769	0.23	2220

Table 21. Salmon catch and effort for the LSW Miramichi River from DFO Red Book data.

Salmon	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	1800	3315	0.54	206	21	227	3825	0.06	7140
1970	138	1000	0.14	157	19	176	3523	0.05	4523
1971	50	960	0.05	106	0	106	2110	0.05	3070
1972	53	468	0.11	295	18	313	4350	0.07	4818
1973	359	-	-	255	4	259	-	-	3898
1974	193	-	-	616	17	633	-	-	7900
1975	85	550	0.15	165	10	175	3890	0.04	4440
1976	135	-	-	203	12	215	-	-	6262
1977	125	680	0.18	681	20	701	3685	0.19	4365
1978	100	620	0.16	135	34	169	2770	0.06	3390
1979	81	-	-	111	25	136	-	-	2632
1980	46	158	0.29	140	40	180	2830	0.06	2988
1981	42	159	0.26	80	33	113	2070	0.05	2229
1982	4	75	0.05	104	18	122	1140	0.11	1215
1983	23	110	0.21	55	10	65	2295	0.03	2405
1984	16	53	0.30	352	45	397	2495	0.16	2548
1985	-	480	-	86	60	146	1900	0.08	2380
1986	15	152	0.10	117	110	227	2177	0.10	2329
1987	130	366	0.36	214	77	291	1217	0.24	1583
1988	170	425	0.40	151	-	-	1392	-	1817
1989	203	472	0.43	250	44	294	1174	0.25	1646
1990	207	416	0.50	274	93	367	1745	0.21	2161
1991	160	820	0.20	105	64	169	2037	0.08	2857
1992	194	590	0.33	204	66	270	1360	0.20	1950
1993	189	520	0.36	206	30	236	1385	0.17	1905
1994	-	436	-	-	-	-	1436	-	1872
Mean 69-88	188	598	0.22	211	30	245	2604	0.09	3597
Mean 89-93	191	564	0.36	208	59	267	1540	0.18	2104

Table 22. Grilse catch and effort for the LSW Miramichi River from DFO Red Book data.

Grilse	Kelt Season			Bright Season				Total Rod	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	0	3315	0.00	3716	232	3948	3825	1.03	7140
1970	420	1000	0.42	3274	162	3436	3523	0.98	4523
1971	490	960	0.51	1260	0	1260	2110	0.60	3070
1972	179	468	0.38	3290	160	3450	4350	0.79	4818
1973	116	-	-	1083	35	1118	-	-	3898
1974	115	-	-	3320	38	3358	-	-	7900
1975	40	550	0.07	1050	35	1085	3890	0.28	4440
1976	375	-	-	1083	35	1118	-	-	6262
1977	275	680	0.40	1010	35	1045	3685	0.28	4365
1978	180	620	0.29	195	24	219	2770	0.08	3390
1979	38	-	-	235	60	295	-	-	2632
1980	61	158	0.39	260	31	291	2830	0.10	2988
1981	60	159	0.38	205	42	247	2070	0.12	2229
1982	22	75	0.29	289	49	338	1140	0.30	1215
1983	47	110	0.43	309	75	384	2295	0.17	2405
1984	33	53	0.62	251	46	297	2495	0.12	2548
1985	275	480	0.57	455	52	507	1900	0.27	2380
1986	100	152	0.66	1076	70	1146	2177	0.53	2329
1987	215	366	0.59	394	90	484	1217	0.40	1583
1988	285	425	0.67	270	81	351	1392	0.25	1817
1989	288	472	0.61	296	52	348	1174	0.30	1646
1990	299	416	0.72	360	117	477	1745	0.27	2161
1991	140	820	0.17	125	67	192	2037	0.09	2857
1992	96	590	0.16	220	80	300	1360	0.22	1950
1993	95	520	0.18	210	44	254	1385	0.18	1905
1994	221	436	0.51	584	206	790	1436	0.55	1872
Mean 69-88	166	598	0.42	1151	68	1219	2604	0.39	3597
Mean 89-93	184	564	0.37	242	72	314	1540	0.21	2104

Table 23. Salmon catch and effort for the Sevogle River from DFO Red Book data.

Salmon	Kelt Season			Bright Season				Total Rod	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	0	0	0.00	112	12	124	2250	0.06	2250
1970	0	0	0.00	87	4	91	1950	0.05	1950
1971	0	0	0.00	57	0	57	1280	0.04	1280
1972	0	0	0.00	142	30	172	1298	0.13	1298
1973	0	0	0.00	60	10	70	1264	0.06	1264
1974	0	0	0.00	174	9	183	1716	0.11	1716
1975	0	0	0.00	65	5	70	815	0.09	815
1976	0	0	0.00	575	0	575	2705	0.21	2705
1977	0	0	0.00	755	0	755	2055	0.37	2055
1978	0	0	0.00	535	10	545	2145	0.25	2145
1979	0	0	0.00	189	9	198	1851	0.11	1851
1980	0	0	0.00	195	51	246	2083	0.12	2083
1981	0	0	0.00	90	35	125	1561	0.08	1561
1982	9	45	0.20	156	24	180	3237	0.06	3282
1983	10	25	0.40	70	20	90	1590	0.06	1615
1984	5	10	0.50	67	28	95	1280	0.07	1290
1985	-	44	-	69	35	104	1120	0.09	1164
1986	-	15	-	-	-	-	1433	-	1448
1987	-	14	-	94	60	154	1388	0.11	1402
1988	-	18	-	58	50	108	1318	0.08	1336
1989	-	-	-	27	6	33	937	0.04	937
1990	19	22	0.86	45	13	58	1323	0.04	1345
1991	0	35	0.00	6	1	7	1506	0.00	1541
1992	0	0	0.00	36	8	44	1184	0.04	1184
1993	0	0	0.00	44	12	56	1261	0.04	1261
1994	0	0	0.00	49	15	64	1395	0.05	1395
Mean 69-88	2	9	0.07	187	21	207	1717	0.11	1726
Mean 89-93	4	11	0.17	32	8	40	1242	0.03	1254

Table 24. Grilse catch and effort for the Sevogle River from DFO Red Book data.

Grilse	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	0	0	0.00	1760	76	1836	2250	0.82	2250
1970	0	0	0.00	1105	22	1127	1950	0.58	1950
1971	0	0	0.00	720	0	720	1280	0.56	1280
1972	0	0	0.00	876	22	898	1298	0.69	1298
1973	0	0	0.00	305	20	325	1264	0.26	1264
1974	0	0	0.00	766	27	793	1716	0.46	1716
1975	0	0	0.00	185	12	197	815	0.24	815
1976	0	0	0.00	884	0	884	2705	0.33	2705
1977	0	0	0.00	332	0	332	2055	0.16	2055
1978	0	0	0.00	485	14	499	2145	0.23	2145
1979	0	0	0.00	557	17	574	1851	0.31	1851
1980	0	0	0.00	635	30	665	2083	0.32	2083
1981	0	0	0.00	440	44	484	1561	0.31	1561
1982	13	45	0.29	1108	227	1335	3237	0.41	3282
1983	12	25	0.48	629	105	734	1590	0.46	1615
1984	7	10	0.70	818	300	1118	1280	0.87	1290
1985	28	44	0.64	740	320	1060	1120	0.95	1164
1986	12	15	0.80	1255	600	1855	1433	1.29	1448
1987	10	14	0.71	451	400	851	1388	0.61	1402
1988	15	18	0.83	354	525	879	1318	0.67	1336
1989	-	-	-	85	18	103	937	0.11	937
1990	0	22	0.00	240	30	270	1323	0.20	1345
1991	0	35	0.00	41	14	55	1506	0.04	1541
1992	0	0	0.00	34	5	39	1184	0.03	1184
1993	0	0	0.00	80	19	99	1261	0.08	1261
1994	0	0	0.00	90	28	118	1395	0.08	1395
Mean 69-88	5	9	0.22	720	138	858	1717	0.53	1726
Mean 89-93	0	11	0.00	96	17	113	1242	0.09	1254

Table 25. Salmon catch and effort for the Southwest Miramichi River System from DNRE Fishsys.

Salmon	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	1697	-	-	2012	1256	3268	-	-	54570
1970	1233	-	-	1405	1358	2763	-	-	49557
1971	1217	-	-	1123	244	1367	-	-	38772
1972	410	-	-	5844	1808	7652	-	-	52376
1973	2568	-	-	3665	1404	5069	-	-	52686
1974	2599	-	-	4945	827	5772	-	-	53549
1975	2571	-	-	3750	1236	4986	-	-	51258
1976	1197	4358	0.27	4610	1383	5993	53258	0.11	57616
1977	2359	6811	0.35	8015	1180	9195	49507	0.19	56318
1978	1799	4565	0.39	3402	734	4136	54508	0.08	59073
1979	1471	4360	0.34	1546	419	1965	48883	0.04	53243
1980	1374	5710	0.24	3380	1650	5030	41834	0.12	47544
1981	1769	4810	0.37	1442	749	2191	48193	0.05	53003
1982	1161	6696	0.17	2457	1053	3510	49248	0.07	55944
1983	770	4180	0.18	1170	340	1510	57870	0.03	62050
1984	483	1739	0.28	3617	1240	4858	40330	0.12	42069
1985	3118	3637	0.86	5484	1038	6522	38769	0.17	42406
1986	5920	6571	0.90	6828	3551	10379	41113	0.25	47684
1987	4440	9799	0.45	4913	4931	9844	42115	0.23	51914
1988	5514	5245	1.05	3043	3943	6986	55612	0.13	60857
1989	6518	5076	1.28	4461	4662	9123	51008	0.18	56084
1990	4465	12200	0.37	4289	2740	7029	86700	0.08	98900
1991	2474	9345	0.26	2757	1857	4614	74714	0.06	84059
1992	3934	9338	0.42	5171	2511	7682	84376	0.09	93714
1993	3375	7467	0.45	3089	2856	5945	77929	0.08	85396
1994	2716	7694	0.35	1834	1427	3261	73905	0.04	81599
Mean 69-88	2184	5268	0.45	3633	1517	5150	47788	0.12	52124
Mean 89-93	4153	8685	0.56	3953	2925	6879	74945	0.10	83631

Table 26. Grilse catch and effort for the Southwest Miramichi River System from DNRE Fishsys.

Grilse	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	1770	-	-	14087	5762	19849	-	-	54570
1970	2909	-	-	9622	5240	14862	-	-	49557
1971	1903	-	-	8521	2300	10821	-	-	38772
1972	1209	-	-	12696	2763	15459	-	-	52376
1973	1317	-	-	8921	1625	10546	-	-	52686
1974	1299	-	-	12943	1340	14283	-	-	53549
1975	1367	-	-	10161	2121	12282	-	-	51258
1976	1988	4358	0.46	18546	3541	22087	53258	0.41	57616
1977	2025	6811	0.30	8893	981	9874	49507	0.20	56318
1978	1039	4565	0.23	5165	867	6032	54508	0.11	59073
1979	1104	4360	0.25	7859	1652	9511	48883	0.19	53243
1980	2013	5710	0.35	5725	1958	7683	41834	0.18	47544
1981	1532	4810	0.32	11056	2897	13953	48193	0.29	53003
1982	2268	6696	0.34	10107	1818	11925	49248	0.24	55944
1983	1710	4180	0.41	3640	850	4490	57870	0.08	62050
1984	1035	1739	0.60	9599	3228	12827	40330	0.32	42069
1985	2097	3637	0.58	7853	1154	9008	38769	0.23	42406
1986	2270	6571	0.35	12193	4423	16616	41113	0.40	47684
1987	2482	9799	0.25	8640	5030	13670	42115	0.32	51914
1988	3523	5245	0.67	9904	10849	20753	55612	0.37	60857
1989	4706	5076	0.93	10813	6001	16814	51008	0.33	56084
1990	3353	12200	0.27	9379	5168	14547	86700	0.17	98900
1991	1974	9345	0.21	5297	2947	8244	74714	0.11	84059
1992	1999	9338	0.21	10209	4313	14522	84376	0.17	93714
1993	1800	7467	0.24	6235	4492	10727	77929	0.14	85396
1994	810	7694	0.11	4375	2697	7072	73905	0.10	81599
Mean 69-88	1843	5268	0.39	9807	3020	12827	47788	0.26	52124
Mean 89-93	2766	8685	0.37	8387	4584	12971	74945	0.18	83631

Table 27. Salmon catch and effort for the Southwest Miramichi River from DNRE Fishsys.

Salmon	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	1653	-	-	1876	1034	2910	-	-	49187
1970	1180	-	-	1266	944	2210	-	-	41603
1971	1191	-	-	1036	231	1267	-	-	36147
1972	410	-	-	5461	1693	7154	-	-	46343
1973	2454	-	-	3083	1304	4387	-	-	46159
1974	2559	-	-	4410	759	5169	-	-	45663
1975	2448	-	-	3357	1220	4577	-	-	43425
1976	1176	4244	0.28	4175	1233	5408	45062	0.12	49306
1977	2359	6497	0.36	7410	981	8391	43257	0.19	49754
1978	1787	4461	0.40	3278	734	4012	48378	0.08	52839
1979	1380	4109	0.34	1433	404	1837	42509	0.04	46618
1980	1291	5504	0.23	3105	1329	4434	36284	0.12	41788
1981	1740	4752	0.37	1361	572	1933	40830	0.05	45582
1982	1134	6615	0.17	2160	882	3042	40770	0.07	47385
1983	700	3700	0.19	1010	270	1280	51280	0.02	54980
1984	442	1712	0.26	3218	1076	4294	33135	0.13	34847
1985	3118	3599	0.87	4831	943	5774	32956	0.18	36555
1986	5649	6494	0.87	5648	2259	7907	29065	0.27	35559
1987	4406	9752	0.45	4271	3601	7872	29383	0.27	39135
1988	5195	4467	1.16	2678	3171	5849	42805	0.14	47272
1989	6483	4990	1.30	3902	3876	7778	38198	0.20	43188
1990	4371	11856	0.37	3508	2222	5730	67632	0.08	79488
1991	2397	8956	0.27	2320	1322	3642	58294	0.06	67250
1992	3889	8512	0.46	4281	1953	6234	66029	0.09	74541
1993	3256	7138	0.46	2573	2233	4806	59514	0.08	66652
1994	2593	7318	0.35	1752	1372	3124	61550	0.05	68868
Mean 69-88	2114	5070	0.46	3253	1232	4485	39670	0.13	44507
Mean 89-93	4079	8290	0.57	3317	2321	5638	57933	0.11	66224

Table 28. Grilse catch and effort for the Southwest Miramichi River from DNRE Fishsys.

Grilse	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	1741	-	-	13105	5188	18293	-	-	49187
1970	2848	-	-	8629	3869	12498	-	-	41603
1971	1845	-	-	7904	2186	10090	-	-	36147
1972	1166	-	-	11022	2504	13526	-	-	46343
1973	1277	-	-	7430	1518	8948	-	-	46159
1974	1254	-	-	10547	1266	11813	-	-	45663
1975	1318	-	-	8752	2014	10766	-	-	43425
1976	1952	4244	0.46	16174	3092	19266	45062	0.43	49306
1977	1994	6497	0.31	7766	856	8622	43257	0.20	49754
1978	1021	4461	0.23	4779	825	5604	48378	0.12	52839
1979	1082	4109	0.26	6610	1334	7944	42509	0.19	46618
1980	1952	5504	0.35	4896	1675	6571	36284	0.18	41788
1981	1532	4752	0.32	9831	2401	12232	40830	0.30	45582
1982	2232	6615	0.34	8604	1476	10080	40770	0.25	47385
1983	1640	3700	0.44	3110	700	3810	51280	0.07	54980
1984	980	1712	0.57	7444	2816	10260	33135	0.31	34847
1985	2059	3599	0.57	5698	866	6564	32956	0.20	36555
1986	2133	6494	0.33	9382	3027	12409	29065	0.43	35559
1987	2457	9752	0.25	7212	3968	11180	29383	0.38	39135
1988	3320	4467	0.74	7952	8765	16717	42805	0.39	47272
1989	4663	4990	0.93	8714	4716	13430	38198	0.35	43188
1990	3297	11856	0.28	7278	4021	11299	67632	0.17	79488
1991	1909	8956	0.21	4225	2294	6519	58294	0.11	67250
1992	1922	8512	0.23	7667	3642	11309	66029	0.17	74541
1993	1733	7138	0.24	4737	3373	8110	59514	0.14	66652
1994	798	7318	0.11	3183	2379	5562	61550	0.09	68868
Mean 69-88	1790	5070	0.40	8342	2517	10860	39670	0.26	44507
Mean 89-93	2705	8290	0.38	6524	3609	10133	57933	0.19	66224

Table 29. Salmon catch and effort for the Cains River from DNRE Fishsys.

Salmon	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	44	-	-	9	116	125	-	-	1805
1970	37	-	-	46	329	375	-	-	4285
1971	10	-	-	43	13	56	-	-	1124
1972	0	-	-	112	65	177	-	-	1858
1973	94	-	-	294	87	381	-	-	1817
1974	23	-	-	96	34	130	-	-	1148
1975	74	-	-	33	0	33	-	-	1005
1976	21	66	0.32	43	100	143	1597	0.09	1663
1977	0	80	0.00	52	157	209	1020	0.20	1100
1978	12	33	0.36	6	0	6	730	0.01	763
1979	61	15	4.07	7	15	22	1456	0.02	1471
1980	30	130	0.23	15	230	245	1745	0.14	1875
1981	29	44	0.66	0	148	148	1807	0.08	1851
1982	9	27	0.33	63	144	207	2259	0.09	2286
1983	40	120	0.33	0	60	60	1820	0.03	1940
1984	41	27	1.52	27	151	178	1837	0.10	1864
1985	0	38	0.00	115	57	172	770	0.22	808
1986	138	61	2.26	94	974	1068	2155	0.50	2216
1987	26	47	0.55	53	938	991	3921	0.25	3968
1988	93	86	1.08	46	554	600	5593	0.11	5679
1989	35	86	0.41	26	551	577	3895	0.15	3981
1990	70	344	0.20	80	262	342	4577	0.07	4921
1991	49	214	0.23	42	421	463	5353	0.09	5567
1992	45	627	0.07	54	397	451	4231	0.11	4858
1993	30	145	0.21	68	379	447	4910	0.09	5055
1994	123	355	0.35	24	27	51	1153	0.04	1508
Mean 69-88	39	60	0.90	58	209	266	2055	0.14	2026
Mean 89-93	46	283	0.22	54	402	456	4593	0.10	4876

Table 30. Grilse catch and effort for the Cains River from DNRE Fishsys.

Grilse	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	0	-	-	56	241	297	-	-	1805
1970	56	-	-	121	950	1071	-	-	4285
1971	48	-	-	166	76	242	-	-	1124
1972	43	-	-	275	82	357	-	-	1858
1973	27	-	-	247	67	314	-	-	1817
1974	45	-	-	197	34	231	-	-	1148
1975	41	-	-	90	0	90	-	-	1005
1976	7	66	0.11	249	228	477	1597	0.30	1663
1977	0	80	0.00	52	125	177	1020	0.17	1100
1978	0	33	0.00	0	6	6	730	0.01	763
1979	7	15	0.47	106	144	250	1456	0.17	1471
1980	61	130	0.47	15	153	168	1745	0.10	1875
1981	0	44	0.00	7	297	304	1807	0.17	1851
1982	0	27	0.00	99	216	315	2259	0.14	2286
1983	30	120	0.25	10	90	100	1820	0.05	1940
1984	55	27	2.04	124	303	427	1837	0.23	1864
1985	38	38	1.00	96	77	173	770	0.22	808
1986	51	61	0.84	69	845	914	2155	0.42	2216
1987	17	47	0.36	89	491	580	3921	0.15	3968
1988	39	86	0.45	460	1226	1686	5593	0.30	5679
1989	43	86	0.50	236	507	743	3895	0.19	3981
1990	40	344	0.12	208	497	705	4577	0.15	4921
1991	16	214	0.07	66	479	545	5353	0.10	5567
1992	77	627	0.12	110	311	421	4231	0.10	4858
1993	0	145	0.00	100	459	559	4910	0.11	5055
1994	12	355	0.03	46	12	58	1153	0.05	1508
Mean 69-88	28	60	0.46	126	283	409	2055	0.19	2026
Mean 89-93	35	283	0.16	144	451	595	4593	0.13	4876

Table 31. Salmon catch and effort for the Renous and Dungarvon Rivers from DNRE Fishsys.

Salmon	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	0	-	-	127	106	233	-	-	3578
1970	16	-	-	93	85	178	-	-	3669
1971	16	-	-	44	0	44	-	-	1501
1972	0	-	-	271	50	321	-	-	4175
1973	20	-	-	288	13	301	-	-	4710
1974	17	-	-	439	34	473	-	-	6738
1975	49	-	-	360	16	376	-	-	6828
1976	0	48	0.00	392	50	442	6599	0.07	6647
1977	0	234	0.00	553	42	595	5230	0.11	5464
1978	0	71	0.00	118	0	118	5400	0.02	5471
1979	30	236	0.13	106	0	106	4918	0.02	5154
1980	53	76	0.70	260	91	351	3805	0.09	3881
1981	0	14	0.00	81	29	110	5556	0.02	5570
1982	18	54	0.33	234	27	261	6219	0.04	6273
1983	30	360	0.08	160	10	170	4770	0.04	5130
1984	0	0	-	372	13	386	5358	0.07	5358
1985	0	0	-	538	38	576	5043	0.11	5043
1986	133	16	8.31	1086	318	1404	9893	0.14	9909
1987	8	0	-	589	392	981	8811	0.11	8811
1988	226	692	0.33	319	218	537	7214	0.07	7906
1989	0	0	-	533	235	768	8915	0.09	8915
1990	24	-	-	701	256	957	14491	0.07	14491
1991	28	175	0.16	395	114	509	11067	0.05	11242
1992	0	199	0.00	836	161	997	14116	0.07	14315
1993	89	184	0.48	448	244	692	13505	0.05	13689
1994	0	21	0.00	58	28	86	11202	0.01	11223
Mean 69-88	31	139	0.99	322	77	398	6063	0.07	5591
Mean 89-93	28	140	0.13	583	202	785	12419	0.06	12530

Table 32. Grilse catch and effort for the Renous and Dungarvon Rivers from DNRE Fishsys.

Grilse	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	29	-	-	926	333	1259	-	-	3578
1970	5	-	-	872	421	1293	-	-	3669
1971	10	-	-	451	38	489	-	-	1501
1972	0	-	-	1399	177	1576	-	-	4175
1973	13	-	-	1244	40	1284	-	-	4710
1974	0	-	-	2199	40	2239	-	-	6738
1975	8	-	-	1319	107	1426	-	-	6828
1976	29	48	0.60	2123	221	2344	6599	0.36	6647
1977	31	234	0.13	1075	0	1075	5230	0.21	5464
1978	18	71	0.25	386	36	422	5400	0.08	5471
1979	15	236	0.06	1143	174	1317	4918	0.27	5154
1980	0	76	0.00	814	130	944	3805	0.25	3881
1981	0	14	0.00	1218	199	1417	5556	0.26	5570
1982	36	54	0.67	1404	126	1530	6219	0.25	6273
1983	40	360	0.11	520	60	580	4770	0.12	5130
1984	0	0	-	2031	109	2140	5358	0.40	5358
1985	0	0	-	2059	211	2271	5043	0.45	5043
1986	86	16	5.38	2742	551	3293	9893	0.33	9909
1987	8	0	-	1339	571	1910	8811	0.22	8811
1988	164	692	0.24	1492	858	2350	7214	0.33	7906
1989	0	0	-	1863	778	2641	8915	0.30	8915
1990	16	-	-	1893	650	2543	14491	0.18	14491
1991	49	175	0.28	1006	174	1180	11067	0.11	11242
1992	0	199	0.00	2432	360	2792	14116	0.20	14315
1993	67	184	0.36	1398	660	2058	13505	0.15	13689
1994	0	21	0.00	1146	306	1452	11202	0.13	11223
Mean 69-88	25	139	0.74	1338	220	1558	6063	0.27	5591
Mean 89-93	26	186	0.21	1718	524	2243	12419	0.19	12530

Table 33. Salmon catch and effort for the Southwest Miramichi River System from DFO Red Book data

Salmon	Kelt Season			Bright Season				Total Rod	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	3597	10280	0.35	1710	578	2288	25495	0.09	37519
1970	1747	9595	0.18	1207	437	1644	22340	0.07	31935
1971	1577	6608	0.24	908	122	1030	17267	0.06	23875
1972	714	4143	0.17	3825	938	4763	31889	0.15	36032
1973	4713	-	-	3605	653	4258	-	-	38753
1974	5211	8614	0.60	4153	470	4623	39204	0.12	47818
1975	4382	-	-	2913	400	3313	-	-	29328
1976	4570	-	-	3342	881	4223	-	-	42740
1977	11010	-	-	10535	1268	11803	-	-	65961
1978	5249	-	-	2640	553	3193	-	-	33242
1979	7147	10110	0.71	1313	460	1773	23905	0.07	34015
1980	4333	7996	0.54	2925	1729	4654	28913	0.16	36909
1981	6459	8843	0.73	831	318	1149	28489	0.04	37332
1982	482	7592	0.06	1646	467	2113	29858	0.07	37450
1983	1357	5018	0.27	861	277	1138	17459	0.07	22477
1984	705	3577	0.20	-	-	-	21344	-	24921
1985	-	5929	-	-	-	-	27444	-	33373
1986	-	5799	-	-	-	-	46031	-	51830
1987	-	4970	-	-	-	-	29751	-	34721
1988	-	4490	-	-	-	-	31007	-	35497
1989	-	6327	-	-	-	-	26170	-	32497
1990	-	4212	-	-	-	-	20549	-	24761
1991	-	4811	-	-	-	-	24806	-	29617
1992	-	5155	-	-	-	-	34284	-	39539
1993	-	5792	-	-	-	-	36906	-	42698
1994	-	6021	-	-	-	-	33734	-	39755
Mean 69-88	3953	6904	0.37	2828	637	3464	28026	0.09	36786
Mean 89-93	-	5259	-	-	-	-	28543	-	33822

Table 34. Grilse catch and effort for the Southwest Miramichi River System from DFO Red Book data

Grilse	Kelt Season			Bright Season				Total Rod	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	410	10280	0.04	14734	3829	18563	27239	0.68	37519
1970	3477	9595	0.36	10551	2928	13479	22340	0.60	31935
1971	1900	6608	0.29	4792	908	5700	17267	0.33	23875
1972	1285	4143	0.31	7251	2428	9679	31889	0.30	36032
1973	1362	-	-	4811	1061	5872	-	-	38753
1974	1504	8614	0.17	10403	992	11395	39204	0.29	47818
1975	1109	-	-	6822	746	7568	-	-	29328
1976	2289	-	-	9912	1492	11404	-	-	42740
1977	8899	-	-	4337	720	5057	-	-	65961
1978	1267	-	-	3637	555	4192	-	-	33242
1979	1121	10110	0.11	4594	1256	5850	23905	0.24	34015
1980	1448	7996	0.18	4003	1547	5550	28913	0.19	36909
1981	2154	8843	0.24	4162	1306	5468	28489	0.19	37332
1982	641	7592	0.08	4579	960	5539	29858	0.19	37450
1983	1157	5018	0.23	1271	483	1754	17459	0.10	22477
1984	543	3577	0.15	4856	1492	6348	21344	0.30	24921
1985	2848	5929	0.48	6356	2724	9080	27444	0.33	33373
1986	1135	5799	0.20	9960	11790	21750	46031	0.47	51830
1987	2238	4970	0.45	5975	2773	8748	29751	0.29	34721
1988	3284	4490	0.73	4918	6566	11484	31007	0.37	35497
1989	4462	6327	0.71	5442	6559	12001	26170	0.46	32497
1990	3294	4212	0.78	6097	4224	10321	20549	0.50	24761
1991	2933	4811	0.61	4409	4661	9070	24806	0.37	29617
1992	4497	5155	0.87	9125	14131	23256	34384	0.68	39539
1993	4570	5792	0.79	7803	10276	18079	36906	0.49	42698
1994	4229	6021	0.70	5903	2716	8619	33734	0.26	39755
Mean 69-88	2004	6904	0.27	6396	2328	8724	28143	0.33	36786
Mean 89-93	3951	5259	0.75	6575	7970	14545	28563	0.50	33822

Table 35. Salmon catch and effort for the Southwest Miramichi River from DFO Red Book data.

(Note that the Bartholomew River catch and effort data are included here)

Salmon	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	3361	8615	0.39	1690	482	2172	24625	0.09	33240
1970	1628	8700	0.19	1153	363	1516	19587	0.08	28287
1971	1543	6178	0.25	849	122	971	16338	0.06	22516
1972	690	3824	0.18	3385	718	4103	28504	0.14	32328
1973	4577	-	-	3201	617	3818	-	-	34185
1974	4744	7677	0.62	3647	430	4077	28308	0.14	35985
1975	4102	-	-	2509	361	2870	-	-	25421
1976	4429	-	-	2846	791	3637	-	-	35310
1977	10425	-	-	9467	1153	10620	-	-	57918
1978	4953	-	-	2504	548	3052	-	-	30869
1979	6873	9341	0.74	1128	395	1523	21407	0.07	30748
1980	4067	7539	0.54	2768	1365	4133	25580	0.16	33119
1981	6273	8396	0.75	770	276	1046	24259	0.04	32655
1982	418	6506	0.06	1544	388	1932	23058	0.08	29564
1983	1217	4562	0.27	781	225	1006	12663	0.08	17225
1984	679	3378	0.20	-	-	-	16542	-	19920
1985	-	5644	-	-	-	-	19538	-	25182
1986	-	5014	-	-	-	-	35526	-	40540
1987	-	4783	-	-	-	-	21009	-	25792
1988	-	4315	-	-	-	-	20070	-	24385
1989	-	5629	-	-	-	-	15118	-	20747
1990	-	3881	-	-	-	-	15723	-	19604
1991	-	4489	-	-	-	-	17050	-	21539
1992	-	4698	-	-	-	-	28812	-	33510
1993	-	5446	-	-	-	-	32033	-	37479
1994	-	5613	-	-	-	-	30891	-	36504
Mean 69-88	3749	6298	0.38	2549	549	3098	22468	0.09	30759
Mean 89-93	-	4829	-	-	-	-	21747	-	26576

Table 36. Grilse catch and effort for the Southwest Miramichi River from DFO Red Book data.

(Note that the Bartholomew River catch and effort data are included here)

Grilse	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	410	8615	0.05	14130	3530	17660	24625	0.72	33240
1970	3215	8700	0.37	9771	2531	12302	19587	0.63	28287
1971	1792	6178	0.29	4641	908	5549	16338	0.34	22516
1972	1210	3824	0.32	5938	1773	7711	28504	0.27	32328
1973	1197	-	-	4071	978	5049	-	-	34185
1974	1342	7677	0.17	8412	887	9299	28308	0.33	35985
1975	908	-	-	5856	719	6575	-	-	25421
1976	2187	-	-	8521	1266	9787	-	-	35310
1977	8225	-	-	3628	667	4295	-	-	57918
1978	1249	-	-	3550	545	4095	-	-	30869
1979	1121	9341	0.12	4224	1099	5323	21407	0.25	30748
1980	1426	7539	0.19	3651	1310	4961	25580	0.19	33119
1981	2044	8396	0.24	3914	1071	4985	24259	0.21	32655
1982	584	6506	0.09	4369	830	5199	23058	0.23	29564
1983	1097	4562	0.24	1105	416	1521	12663	0.12	17225
1984	521	3378	0.15	3424	1086	4510	16542	0.27	19920
1985	2626	5644	0.47	4957	2183	7140	19538	0.37	25182
1986	900	5014	0.18	8050	10538	18588	35526	0.52	40540
1987	2036	4783	0.43	4759	1725	6484	21009	0.31	25792
1988	3116	4315	0.72	3561	4777	8338	20070	0.42	24385
1989	4151	5629	0.74	3382	4682	8064	15118	0.53	20747
1990	3040	3881	0.78	4292	2386	6678	15723	0.42	19604
1991	2750	4489	0.61	3258	3661	6919	17050	0.41	21539
1992	4300	4698	0.92	7944	13355	21299	28812	0.74	33510
1993	4322	5446	0.79	6882	9684	16566	32033	0.52	37479
1994	3999	5613	0.71	5172	2395	7567	30891	0.24	36504
Mean 69-88	1860	6298	0.27	5527	1942	7469	22468	0.34	30759
Mean 89-93	3713	4829	0.77	5152	6754	11905	21747	0.52	26576

Table 37. Salmon catch and effort for the Cains River from DFO Red Book data.

Salmon	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	110	225	0.49	0	60	60	450	0.13	675
1970	85	415	0.20	0	49	49	900	0.05	1315
1971	-	-	-	-	-	-	-	-	-
1972	14	179	0.08	215	210	425	1847	0.23	2026
1973	99	244	0.41	82	21	103	1324	0.08	1568
1974	420	735	0.57	152	10	162	1746	0.09	2481
1975	133	303	0.44	5	3	8	315	0.03	618
1976	42	160	0.26	24	30	54	1370	0.04	1530
1977	523	1915	0.27	54	69	123	1099	0.11	3014
1978	169	563	0.30	3	1	4	119	0.03	682
1979	189	233	0.81	19	38	57	773	0.07	1006
1980	92	187	0.49	23	331	354	1542	0.23	1729
1981	101	269	0.38	13	20	33	1210	0.03	1479
1982	23	525	0.04	25	54	79	2870	0.03	3395
1983	30	169	0.18	20	40	60	1093	0.05	1262
1984	14	109	0.13	-	-	-	1687	-	1796
1985	-	80	-	-	-	-	1949	-	2029
1986	400	225	1.78	-	-	-	3270	-	3495
1987	-	40	-	-	-	-	2301	-	2341
1988	-	73	-	-	-	-	3800	-	3873
1989	-	99	-	-	-	-	3948	-	4047
1990	-	120	-	-	-	-	1224	-	1344
1991	-	130	-	-	-	-	2511	-	2641
1992	-	182	-	-	-	-	2216	-	2398
1993	-	218	-	-	-	-	1870	-	2088
1994	-	205	-	-	-	-	42	-	247
Mean 69-88	153	350	0.43	45	67	112	1561	0.09	1816
Mean 89-93	-	150	-	-	-	-	2354	-	2504

Table 38. Grilse catch and effort for the Cains River from DFO Red Book data.

Grilse	Kelt Season			Bright Season				Total Rod	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	0	225	0.00	0	165	165	450	0.37	675
1970	167	415	0.40	0	258	258	900	0.29	1315
1971	-	-	-	-	-	-	-	-	-
1972	40	179	0.22	505	630	1135	1847	0.61	2026
1973	55	244	0.23	113	37	150	1324	0.11	1568
1974	121	735	0.16	236	10	246	1746	0.14	2481
1975	53	303	0.17	14	8	22	315	0.07	618
1976	33	160	0.21	158	113	271	1370	0.20	1530
1977	524	1915	0.27	85	8	93	1099	0.08	3014
1978	18	563	0.03	7	2	9	119	0.08	682
1979	0	233	0.00	52	92	144	773	0.19	1006
1980	22	187	0.12	49	188	237	1542	0.15	1729
1981	79	269	0.29	40	130	170	1210	0.14	1479
1982	28	525	0.05	34	72	106	2870	0.04	3395
1983	13	169	0.08	38	36	74	1093	0.07	1262
1984	7	109	0.06	214	225	439	1687	0.26	1796
1985	47	80	0.59	170	197	367	1949	0.19	2029
1986	90	225	0.40	220	575	795	3270	0.24	3495
1987	45	40	1.13	77	548	625	2301	0.27	2341
1988	62	73	0.85	241	1081	1322	3800	0.35	3873
1989	84	99	0.85	603	988	1591	3948	0.40	4047
1990	98	120	0.82	680	832	1512	1224	1.24	1344
1991	138	130	1.06	423	382	805	2511	0.32	2641
1992	140	182	0.77	432	388	820	2216	0.37	2398
1993	172	218	0.79	248	316	564	1870	0.30	2088
1994	121	205	0.59	35	3	38	42	0.90	247
Mean 69-88	74	350	0.28	119	230	349	1561	0.20	1911
Mean 89-93	126	150	0.86	477	581	1058	2354	0.53	2504

Table 39. Salmon catch and effort for the Renous and Dungarvon Rivers from DFO Red Book data.

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Salmon	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	126	1440	0.09	20	36	56	420	0.13	3604
1970	34	480	0.07	54	25	79	1853	0.04	2333
1971	34	430	0.08	59	0	59	929	0.06	1359
1972	10	140	0.07	225	10	235	1538	0.15	1678
1973	37	231	0.16	322	15	337	2769	0.12	3000
1974	47	202	0.23	354	30	384	9150	0.04	9352
1975	147	540	0.27	399	36	435	2749	0.16	3289
1976	99	-	-	472	60	532	-	-	5900
1977	62	1100	0.06	1014	46	1060	3929	0.27	5029
1978	127	-	-	133	4	137	-	-	1691
1979	85	536	0.16	166	27	193	1725	0.11	2261
1980	174	270	0.64	134	33	167	1791	0.09	2061
1981	85	178	0.48	48	22	70	3020	0.02	3198
1982	41	561	0.07	77	25	102	3930	0.03	4491
1983	110	287	0.38	60	12	72	3703	0.02	3990
1984	12	90	0.13	-	-	-	3115	-	3205
1985	-	205	-	-	-	-	5957	-	6162
1986	1400	560	2.50	-	-	-	7235	-	7795
1987	-	147	-	-	-	-	6441	-	6588
1988	-	102	-	-	-	-	7137	-	7239
1989	-	599	-	-	-	-	7104	-	7703
1990	-	211	-	-	-	-	3602	-	3813
1991	-	192	-	-	-	-	5245	-	5437
1992	-	275	-	-	-	-	3256	-	3631
1993	-	128	-	-	-	-	3003	-	3131
1994	-	203	-	-	-	-	2801	-	3004
Mean 69-88	155	417	0.36	236	25	261	3744	0.10	4211
Mean 89-93	-	281	-	-	-	-	4442	-	4743

Table 40. Grilse catch and effort for the Renous and Dungarvon Rivers from DFO Red Book data.

Grilse	Kelt Season			Bright Season				Total Rod	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	0	1440	0.00	604	134	738	2164	0.34	3604
1970	95	480	0.20	780	139	919	1853	0.50	2333
1971	108	430	0.25	151	0	151	929	0.16	1359
1972	35	140	0.25	808	25	833	1538	0.54	1678
1973	110	231	0.48	627	46	673	2769	0.24	3000
1974	41	202	0.20	1755	95	1850	9150	0.20	9352
1975	148	540	0.27	952	19	971	2749	0.35	3289
1976	69	-	-	1233	113	1346	-	-	5900
1977	150	1100	0.14	624	45	669	3929	0.17	5029
1978	0	-	-	80	8	88	-	-	1691
1979	0	536	0.00	318	65	383	1725	0.22	2261
1980	0	270	0.00	303	49	352	1791	0.20	2061
1981	31	178	0.17	208	105	313	3020	0.10	3198
1982	29	561	0.05	176	58	234	3930	0.06	4491
1983	47	287	0.16	128	31	159	3703	0.04	3990
1984	15	90	0.17	1218	181	1399	3115	0.45	3205
1985	175	205	0.85	1229	344	1573	5957	0.26	6162
1986	145	560	0.26	1690	677	2367	7235	0.33	7795
1987	157	147	1.07	1139	500	1639	6441	0.25	6588
1988	106	102	1.04	1116	708	1824	7137	0.26	7239
1989	227	599	0.38	1457	889	2346	7104	0.33	7703
1990	156	211	0.74	1125	1006	2131	3602	0.59	3813
1991	45	192	0.23	728	618	1346	5245	0.26	5437
1992	57	275	0.21	749	388	1137	3356	0.34	3631
1993	76	128	0.59	673	276	949	3003	0.32	3131
1994	109	203	0.54	696	318	1014	2801	0.36	3004
Mean 69-88	73	417	0.31	757	167	924	3841	0.26	4211
Mean 89-93	112	281	0.43	946	635	1582	4462	0.37	4743

Table 41. Salmon catch and effort for SFA 16 from DNRE Fishsys.

Salmon	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	1862	-	-	2481	1512	3993	-	-	71579
1970	1763	-	-	1806	1503	3309	-	-	63400
1971	1495	-	-	1498	330	1828	-	-	50304
1972	573	-	-	6985	2192	9177	-	-	66526
1973	3124	-	-	4580	1570	6150	-	-	68584
1974	3150	-	-	6380	963	7343	-	-	67891
1975	3234	-	-	4945	1391	6336	-	-	68324
1976	1453	5688	0.26	5970	1455	7425	67761	0.11	73449
1977	2808	7927	0.35	10374	1253	11627	65707	0.18	73634
1978	2322	6225	0.37	4145	812	4957	71332	0.07	77557
1979	1693	5961	0.28	2184	472	2656	68681	0.04	74642
1980	1542	6780	0.23	4638	1993	6631	59187	0.11	65967
1981	2207	5932	0.37	2391	858	3249	74363	0.04	80295
1982	1512	8679	0.17	3591	1377	4968	79557	0.06	88236
1983	1030	6073	0.17	1900	490	2390	91437	0.03	97510
1984	1020	2468	0.41	6266	1528	7795	57953	0.13	60421
1985	3809	4217	0.90	8410	1286	9696	62114	0.16	66331
1986	6911	8167	0.85	10336	4255	14591	67924	0.21	76091
1987	5688	11153	0.51	6760	5787	12547	66337	0.19	77490
1988	7129	6240	1.14	5376	5666	11042	82091	0.13	88331
1989	7723	6375	1.21	6611	5884	12495	74240	0.17	80615
1990	6013	16788	0.36	6190	3474	9664	125284	0.08	142072
1991	3123	12126	0.26	3967	2404	6371	111768	0.06	123894
1992	5470	12214	0.45	6857	3349	10206	125502	0.08	137716
1993	4462	10348	0.43	4939	3617	8556	121259	0.07	131607
1994	3421	10902	0.31	3246	1901	5147	115367	0.04	126269
Mean 69-88	2716	6578	0.46	5051	1835	6886	70342	0.11	72828
Mean 89-93	5358	11570	0.54	5713	3746	9458	111611	0.09	123181

Table 42. Grilse catch and effort for SFA 16 from DNRE Fishsys.

Grilse	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	2700	-	-	18088	6386	24474	-	-	71579
1970	3865	-	-	13901	5779	19680	-	-	63400
1971	2504	-	-	11281	2494	13775	-	-	50304
1972	1529	-	-	16083	3103	19186	-	-	66526
1973	1571	-	-	12071	1926	13997	-	-	68584
1974	1546	-	-	16891	1539	18430	-	-	67891
1975	1833	-	-	13314	2399	15713	-	-	68324
1976	2352	5688	0.41	23535	3875	27410	67761	0.40	73449
1977	2390	7927	0.30	12577	1064	13641	65707	0.21	73634
1978	1484	6225	0.24	7373	1010	8383	71332	0.12	77557
1979	1483	5961	0.25	12654	1864	14518	68681	0.21	74642
1980	2280	6780	0.34	9682	2485	12167	59187	0.21	65967
1981	1806	5932	0.30	19286	3684	22970	74363	0.31	80295
1982	3231	8679	0.37	19485	2448	21933	79557	0.28	88236
1983	2260	6073	0.37	7370	1140	8510	91437	0.09	97510
1984	1903	2468	0.77	15369	3680	19049	57953	0.33	60421
1985	2404	4217	0.57	17111	1383	18495	62114	0.30	66331
1986	2552	8167	0.31	20679	5860	26539	67924	0.39	76091
1987	2810	11153	0.25	14931	6149	21080	66337	0.32	77490
1988	4457	6240	0.71	17979	13189	31168	82091	0.38	88331
1989	5614	6375	0.88	17408	7565	24973	74240	0.34	80615
1990	4262	16788	0.25	15360	6355	21715	125284	0.17	142072
1991	2507	12126	0.21	7804	3678	11482	111768	0.10	123894
1992	2577	12214	0.21	16659	5329	21988	125502	0.18	137716
1993	2435	10348	0.24	11471	5841	17312	121259	0.14	131607
1994	931	10902	0.09	7831	3389	11220	115367	0.10	126269
Mean 69-88	2348	6578	0.40	14983	3573	18556	70342	0.27	72828
Mean 89-93	3479	11570	0.36	13740	5754	19494	111611	0.19	123181

Table 43. Salmon catch and effort for SFA 16 from DFO Red Book data.

Salmon	Kelt Season			Bright Season				Total Rods	
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	7384	18137	0.41	2236	922	3158	39782	0.08	57919
1970	2336	-		1607	589	2196	-		47916
1971	2032	9835	0.31	1158	259	1417	24126	0.06	33961
1972	859	5553	0.28	4507	1231	5738	41582	0.14	47135
1973	5743	-		4209	862	5071	-		50737
1974	6045	-		5459	695	6154	-		65172
1975	4811	-		3398	642	4040	-		40478
1976	5257	-		4484	1145	5629	-		62028
1977	11900	-		13067	1350	14417	-		82377
1978	6009	-		3569	664	4233	-		45295
1979	7536	-		1904	537	2441	-		43734
1980	4598	9280	0.50	3612	1985	5597	38318	0.15	47598
1981	7007	10378	0.68	1175	517	1692	36199	0.05	46577
1982	790	9157	0.09	2169	939	3108	40382	0.08	49539
1983	2244	7192	0.31	1322	374	1696	25753	0.07	32945
1984	937	5087	0.18	-	-	-	29611	-	34698
1985	-	7955	-	-	-	-	34030	-	41985
1986	-	6955	-	-	-	-	55009	-	61964
1987	-	6470	-	-	-	-	36584	-	43054
1988	-	6580	-	-	-	-	38674	-	45254
1989	-	8861	-	-	-	-	32336	-	41197
1990	-	6049	-	-	-	-	28725	-	34774
1991	-	6914	-	-	-	-	30440	-	37354
1992	-	6519	-	-	-	-	39040	-	45559
1993	-	7378	-	-	-	-	41753	-	49131
1994	-	7479	-	-	-	-	36947	-	44426
Mean 69-88	4718	8548	0.34	3592	847	4439	36671	0.08	48585
Mean 89-93	-	7144	-	-	-	-	34459	-	41603

Table 44. Grilse catch and effort for SFA 16 from DFO Red Book data.

Grilse									Total Rods
	Catch	Rods	CPUE	Early	Late	Total	Rods	CPUE	
1969	410	18137	0.02	22440	4605	27045	39782	0.68	57919
1970	4594	-	-	16557	3432	19989	-	-	47916
1971	3085	9835	0.21	7603	991	8594	24126	0.36	33961
1972	1554	5553	0.15	12867	2753	15620	41582	0.38	47135
1973	1980	-	-	7867	1223	9090	-	-	50737
1974	2479	-	-	16935	1163	18098	-	-	65172
1975	1372	-	-	8897	940	9837	-	-	40478
1976	3772	-	-	13237	1729	14966	-	-	62028
1977	10498	-	-	7509	823	8332	-	-	82377
1978	2072	-	-	4727	637	5364	-	-	45295
1979	1309	-	-	6258	1417	7675	-	-	43734
1980	1667	9280	0.18	5886	1785	7671	38318	0.20	47598
1981	2406	10378	0.23	5628	1544	7172	36199	0.20	46577
1982	1141	9157	0.12	7802	1674	9476	40382	0.23	49539
1983	2009	7192	0.28	3183	786	3969	25753	0.15	32945
1984	720	5087	0.14	7983	2051	10034	29611	0.34	34698
1985	3641	7955	0.46	8776	3332	12108	34030	0.36	41985
1986	1524	6955	0.22	14689	13935	28624	55009	0.52	61964
1987	3009	6470	0.47	7417	4388	11805	36584	0.32	43054
1988	4322	6580	0.66	5787	10696	16483	38674	0.43	45254
1989	7081	8861	0.80	6003	6968	12971	32336	0.40	41197
1990	4863	6049	0.80	7171	4889	12060	28725	0.42	34774
1991	4580	6914	0.66	4688	4987	9675	30440	0.32	37354
1992	5339	6519	0.82	9646	14569	24215	39040	0.62	45559
1993	5461	7378	0.74	8382	10629	19011	41753	0.46	49131
1994	5317	7479	0.71	6834	3121	9955	36947	0.27	44426
Mean 69-88	2633	8548	0.26	8927	2910	11837	36671	0.35	49018
Mean 89-93	5465	7144	0.76	7178	8408	15586	34459	0.44	41603

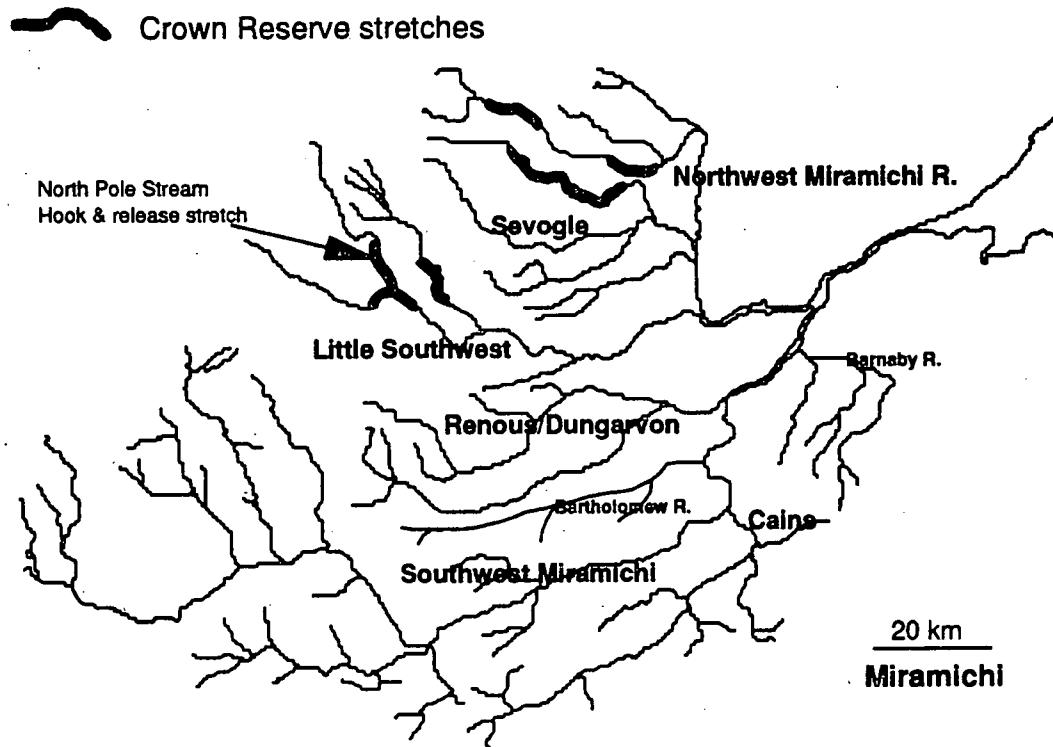


Fig. 1. The Miramichi River indicating major branches, major tributaries and location of Crown Reserve stretches in the Northwest Miramichi System.

10.0 APPENDIX I Angling seasons on Miramichi River System 1994.

Tributary	Black	Season	Bright
General	April 15 to May 15		June 8-October 15
Exceptions			
Bartholomew			
- above Ledbetters Bk		closed	
Dungarvon			
- above DNRE salmon barrier	closed to angling		closed to angling
- above Underwood Bk			closed after September 15
Little Southwest			
- above Catamaran Bk			closed after September 15
Main Southwest			
- North and South Branches		closed after September 15	
- above Burntland Bk to fork			closed after September 30
of North and South Branch			
Northwest			
- above South Branch NW Mir.	closed to angling		closed to angling
- above Little River			closed after August 31
Renous			
- above Forks			closed after September 15
Rocky Brook			closed after August 31
Sevogle			
- above Square Forks			closed after September 15
Other tributaries of the			
Main Southwest Miramichi			
- above Cains except Rocky Bk			closed after September 15