Status of Atlantic Salmon (Salmo salar L.) Stocks of the Newfoundland Region, 1988

by

M. F. O'Connell, J. B. Dempson, E.G.M. Ash, and N. M. Cochrane
Science Branch
Department of Fisheries and Oceans
P. O. Box 5667
St. John's, Newfoundland A1C 5X1

Abstract

The overall commercial catch (preliminary data) of small salmon in Labrador in 1988 was similar to 1987 and within the 95% confidence limits of the 1974-87 and 1983-87 means. For insular Newfoundland, however, the catch of small salmon decreased from 1987 and was below the lower limit of the 95% confidence interval of each mean. The commercial catch of large salmon in 1988 was below 1987 and the lower limit of the 95% confidence interval of each mean for insular Newfoundland; the catch in Labrador decreased from 1987 and both means and was below the lower limit of the 95% confidence interval of the 1974-87 mean. The overall recreational catch of grilse in insular Newfoundland was similar to historic levels. Examination of catches on an individual SFA basis revealed that increased catches in SFAs 3-7 were responsible for maintaining the overall catch near historic levels; catches in SFAs 8-11 declined. Catches in SFAs 8-11 were hampered by extremely high water conditions during the first 3-4 weeks of the angling season. The recreational catch of grilse in Labrador in 1988 increased over 1987 and the upper limits of the 95% confidence intervals of the 1974-87 and 1983-87 means; the catch of large salmon increased over 1987 and both means and exceeded the upper limit of the 95% confidence interval of the 1983-87 mean. The overall abundance of small salmon in Labrador in 1988 appears to have been comparable to 1987, while for large salmon there was a decrease. The overall abundance of both small and large salmon in insular Newfoundland in 1988 appears to have decreased from 1987.

Résumé

Les prises commerciales de petit saumon (données préliminaires) de 1988 au Labrador sont comparables à celles de 1987 et se situent dans l'intervalle de confiance (95 p. 100) des moyennes de 1974-1987 et de 1983-1987. Toutefois, dans l'île de Terre-Neuve, les prises de petit saumon sont en recul par rapport à 1987 et se situent au-dessous de la limite inférieure de l'intervalle de confiance (95 p. 100) de chaque moyenne, tout comme d'ailleurs les prises commerciales de gros saumon, qui sont inférieures à chacune des moyennes. Au Labrador, les prises de gros saumon ont également dimunué par rapport à celles de 1987 et aux deux moyennes et se situent au-dessous de la limite inférieure de l'intervalle de confiance de la moyenne de 1974-1987. Les prises sportives de madeleineau dans l'île de Terre-Neuve sont comparables aux niveaux antérieurs. Un examen des prises par ZPS révèle que les augmentations obtenues dans les ZPS 3 à 7 ont permis de maintenir les prises globales aux alentours des niveaux antérieurs; les prises dans les ZPS 8 à 11 ont chuté, à cause des hautes eaux durant les trois à quatre premières semaines de la saison de pêche à la ligne. Au Labrador, les prises sportives de madeleineau ont augmenté en 1988 par rapport à celles de 1987 et dépassent les limites supérieures de l'intervalle de confiance des moyennes de 1974-1987 et de 1983-1987. Les prises sportives de gros saumon ont aussi augmenté par rapport à celles de 1987 et aux deux moyennes, pour se situer au-dessus de la limite supérieure de l'intervalle de confiance de la moyenne de 1983-1987. Généralement, le petit saumon a été aussi abondant au Labrador en 1988 qu'en 1987, tandis que le gros saumon y a été moins abondant. Dans l'ensemble de l'île de Terre-Neuve, le petit et le gros saumons semblent avoir été moins abondants en 1988 que l'année précédente.

Introduction

This paper presents the status of Atlantic salmon stocks of the Newfoundland Region (Fig. 1) in 1988. Catch and effort data for the commercial and recreational fisheries and fishway counts (insular Newfoundland) are examined in relation to historical data and the 1988 Management Plan.

The five-year Atlantic salmon Management Plan implemented in 1984 ended in 1988. With respect to the commercial fishery, the aim of the Management Plan was to reduce the interception of large salmon destined to return to rivers in mainland Canada and southwestern Newfoundland. For the years 1969-75, an estimated 25% of the total catch (by weight) of Atlantic salmon taken in Newfoundland and Labrador was of mainland origin (Pippy 1982). Measures were also taken in the recreational fishery in an attempt to increase spawning escapements of large salmon.

Under the Management Plan, beginning in 1984, the start of the commercial fishery was delayed until June 5 (compared to May 18 for 1981-83 and May 15 prior to 1981). A voluntary license buy-back program involving both full-time and part-time fishermen went into effect. In 1985, the June 5 starting date remained in effect and there was a mandatory buy-back of all part-time licenses. In 1986-88, there was a further reduction in the commercial season. The opening date remained June 5; however, the closing date was October 15 as opposed to December 31 for years prior to 1986. Beginning in 1984, it was illegal to retain Atlantic salmon caught as by-catch. Beginning in 1986, a mandatory tagging program was introduced throughout the region. This required that all Atlantic salmon caught in the commercial fishery be identified by a specific tag. There was also a reduction in the number of licensed fishermen and the amount of licensed gear under the Management Plan. The extent of these reductions can be seen in Tables 1 and 2 respectively.

With respect to the recreational fishery, in 1984 a hook-and-release regulation was implemented for large salmon in insular Newfoundland. Large salmon that were caught and released were considered part of the bag limit. Regulations governing grilse remained unchanged. Labrador was exempt from the hook-and-release regulation. In 1985 the hook-and-release regulation was extended to include grilse. Released fish were not considered part of the bag limit. Once the daily bag limit (two fish) was attained (grilse in insular Newfoundland, grilse and/or large salmon in Labrador), angling ceased for the day. In 1986-88, a limit of four was placed on the number of fish an angler could hook and release per day. Angling ceased for the day when one or the other daily limit (two fish retained or four fish hooked and released) was attained. A season bag limit of 15 fish was also imposed. A mandatory tagging program was introduced in 1988.

Methods

The 1988 catch and effort data were added to that previously presented by Moores et al. (1978), Moores and Tucker (1979, 1980), Ash and Tucker (1984), Moores and Ash (1984), Ash and O'Connell (1986, 1987a, 1987b), and Ash and O'Connell (unpublished) for the recreational fishery and to that found in May and Lear (1971), Waldron (1974), Reddin and Waldron (1976), Moores and Dawe

(1980), Reddin and Day (1980), Reddin and Short (1981), Short and Reddin (1981a, 1981b), Ash (1984), Moores et al. (1984), Ash and O'Connell (1986, 1987a, 1987b), and Ash and O'Connell (unpublished) for the commercial fishery. Effort in the commercial fishery was presented as the number of gear units (91.5 m of gill net or salmon trap) licensed to prosecute the fishery. Recreational fishing effort was presented as rod days (defined as any day or part thereof on which an angler fishes).

The calculation of mean weights of small and large salmon in the commercial fishery, the breaking down of unsized catch into the small and large categories, and the estimation of numbers of small and large salmon followed procedures outlined in Ash and O'Connell (1987a or 1987b).

Means and 95% confidence intervals for ratio variables were calculated according to Cochran (1977).

Results

Insular Newfoundland

Commercial fishery: The commercial catch of both small and large salmon for the insular Newfoundland portion of the Newfoundland Region in 1988 (Table 3) declined from 1987 and the 1974-87 and 1983-87 means (Table 4). The decline for each component was below the lower limit of the 95% confidence interval of each mean. Total catch was likewise down from 1987 and below the lower limit of the 95% confidence interval of the means. Additional information, namely catch in terms of number and percent small (by weight and by number), is presented in Appendix 1a.

Recreational fishery: The catch of grilse in 1988 (Table 3) increased over 1987 (Table 4). Most rivers in insular Newfoundland were closed for the greater part of the angling season in 1987 as a result of drought conditions. There were no river closures in the Newfoundland Region in 1988. Because the 1987 catch was atypical, it is more meaningful to compare the 1988 catch to that of 1986 and to the means for 1974-86 and 1982-86 (Table 4). The 1988 catch was similar to 1986 and these two means. The catch for 1988 in relation to 1987 and the 1974-87 and 1983-87 means is shown in Appendix 2a.

Effort expenditure in 1988 (Table 3) was below 1986 and the 1982-86 mean, but higher than the 1974-86 mean (Table 4). Catch per unit of effort (CPUE) in 1988 was similar to 1986 and the 1974-86 and 1982-86 means. Effort and CPUE for 1988 in relation to the 1974-87 and 1983-87 means are shown in Appendix 2a.

Labrador

Commercial fishery: The catch of small salmon in 1988 (Table 3 and Appendix 1b) was below 1987 but increased over the 1974-87 and 1983-87 means (Table 4). The increase was within the 95% confidence interval of the means. The catch of large salmon in 1988 declined from 1987 and both means. The 1988 catch of large salmon was below the lower limit of the 95% confidence interval of the 1974-87 mean. Total catch in 1988 was down from 1987 and the 1974-87

mean (below the lower limit of the 95% confidence interval) but increased over the 1983-87 mean (within the 95% confidence interval).

Recreational fishery: In contrast to the situation for insular Newfoundland, Labrador was unaffected by drought conditions in 1987. Therefore, catches of grilse and large salmon in 1988 are compared to those of 1987 and to the 1974-87 and 1983-87 means. The catch of grilse in 1988 (Table 3 and Appendix 2b) increased over 1987 and the means (Table 4). The 1988 catch was higher than the upper limit of the 95% confidence interval of both means. The catch of large salmon in 1988 increased over 1987 and the means; the catch exceeded the upper limit of the 95% confidence interval of the 1983-87 mean. Total catch in 1988 increased over 1987 and the means and exceeded the upper limit of the 95% confidence interval of each mean.

Effort expenditure in 1988 (Table 3 and Appendix 2b) increased over 1987 and both means. CPUE in 1988 was slightly below 1987 and the 1974-87 mean and somewhat higher than the 1983-87 mean.

Newfoundland Region

Commercial fishery: The catch of both small and large salmon for the entire Newfoundland Region in 1988 (Table 3 and Appendix 1c) declined from 1987 and the 1974-87 and 1983-87 means (Table 4); the decline was most pronounced for the large salmon component. Catches of small and large salmon were below the lower limits of the 95% confidence intervals of the 1974-87 means, but within the intervals of the 1983-87 means. Total catch in 1988 was down from 1987 and the means and, in the case of the 1974-87 mean, was below the lower limit of the 95% confidence interval.

Recreational fishery: It is not possible to make meaningful comparisons of the 1988 recreational catch and effort with previous years in terms of the entire Newfoundland Region due to the use of the different years and means for insular Newfoundland versus Labrador as outlined above. Also, because of regulations governing the retention of large salmon, comparisons for this component in terms of the entire Newfoundland Region are of no pertinent value; the same applies to total recreational catch.

Status by Salmon Fishing Area

Commercial catch data for each Salmon Fishing Area (SFA) of the Newfoundland Region are presented in Table 5 and Appendices 1d-n. Recreational catch and effort data are shown in Table 5 and Appendices 2d-n. Table 4 shows commercial and recreational catches and recreational effort and CPUE for each SFA, expressed as percentages, in relation to 1987, the 1974-87 mean, and the 1983-87 mean. As was the case above, recreational catch and effort data for insular Newfoundland in 1988 are compared to 1986 and the 1974-86 and 1982-86 means in Tables 4 and 5. Comparisons with 1987 and the 1974-87 and 1983-87 means for the recreational fishery are shown in Appendices 2d-n.

Labrador

SFA 1: The commercial catch of small salmon in 1988 increased over 1987 and the 1983-87 mean, but was below the 1974-87 mean. The catch was within the 95% confidence interval of each mean (Appendix 1d). The catch of large salmon was down from 1987 and both means. The catch was below the lower limit of the 95% confidence interval of 1974-87 mean and within the interval of the 1983-87 mean.

In the recreational fishery, the catch of grilse increased over 1987 and the 1974-87 and 1983-87 means. The catch exceeded the upper limit of the 95% confidence interval of each mean (Appendix 2d). The catch of large salmon was comparable to 1987 and the 1983-87 mean, but down from the 1974-87 mean. The catch was below the lower limit of the 95% confidence interval for the 1974-87 mean. Effort increased over 1987 and the means, while the reverse was more or less true for CPUE.

SFA 2: The commercial catch of small salmon in 1988 was down from 1987, but improved over the 1974-87 and 1983-87 means (within the 95% confidence interval (Appendix 1e). The catch of large salmon declined from 1987 and the 1974-87 mean (below the lower limit of the 95% confidence interval), but was similar to the 1983-87 mean.

The catch of both grilse and large salmon in the recreational fishery in 1988 increased over 1987 and the 1974-87 and 1983-87 means. Catches for both components exceeded the upper limit of the 95% confidence interval of each mean (Appendix 2e). Effort and CPUE improved over 1987 and both means.

Insular Newfoundland

SFA 3: The commercial catch of both small and large salmon in 1988 was down from 1987 and the 1974-87 and 1983-87 means. In the case of large salmon, the catch was below the lower limit of the 95% confidence interval of the 1974-87 mean (Appendix 1f).

In the recreational fishery, the catch of grilse in 1988 improved over 1986 and the 1974-86 and 1982-86 means. The catch was, however, within the 95% confidence interval of each mean (Table 6). Effort and CPUE also increased over 1986 and the means.

SFA 4: In the commercial fishery, the catch of both small and large salmon in 1988 decreased from 1987 and the 1974-87 and 1983-87 means. The catch of large salmon was below the lower limit of the 95% interval of each mean (Appendix 1g).

The catch of grilse in the recreational fishery in 1988 was comparable to 1986 and the 1974-86 and 1982-86 means. The same was more or less true for effort and CPUE.

Counts of grilse and large salmon for 1988 at fishways in SFA 4 are provided in Tables 7 and 8 respectively. The fishways concerned are located on Indian Brook, Exploits River (Bishop's Falls and Great Rattling Brook tributary), and Gander River (Salmon Brook tributary). In 1987 there is a

possibility that, owing to drought conditions, fish ascended fishways after counting operations had ceased (O'Connell et al. 1988). For this reason means, including and excluding 1987, are shown in Tables 7 and 8. Using 1986 for comparison purposes, counts of grilse at Indian Brook and Bishop's Falls declined, while the reverse was true for Great Rattling Brook and Salmon Brook. The Salmon Brook count was the third highest on record. Counts of grilse in 1988 were below the means (1987 excluded) for all fishways except Salmon Brook. Counts of large salmon at both Exploits River fishways were below 1986 and the means (1987 excluded). The number of large salmon at Indian Brook in 1988 was similar to 1986, but below the means. At Salmon Brook, twice as many large salmon ascended the fishway in 1988 as in 1986 and this number was comparable to the means. It should be pointed out that where partial counts are involved in the calculation of means, the means should in effect be higher than shown.

SFA 5: Commercial catches of both small and large salmon in 1988 declined from 1987 and the 1974-87 and 1983-87 means. Catches of both components were below the lower limit of the 95% confidence interval of each mean (Appendix 1h).

In the recreational fishery, the 1988 catch of grilse was similar to 1986, but increased over the 1974-86 and 1982-86 means. The catch was within the 95% confidence interval of each mean (Table 6). Effort decreased in relation to 1986 and the 1982-86 mean, but increased over the 1974-86 mean. CPUE increased over 1986 and both means.

Fishways in SFA 5 are located on Middle Brook and Terra Nova River (upper and lower). The 1988 count of grilse at Middle Brook (Table 7) decreased from 1986 and the means (1987 excluded). The count of large salmon (Table 8) was similar to 1986, but remained below the means. The count of grilse at the lower Terra Nova River fishway increased considerably over 1986 and the means; indeed the 1988 count was the highest on record.

SFA 6: The commercial catch of both small and large salmon in 1988 was down from 1987 and the 1974-87 and 1983-87 means. The catch was below the lower limit of the 95% confidence interval of the means in all cases except the 1983-87 mean for small salmon (Appendix 1i).

In the recreational fishery, the 1988 catch of grilse was down from 1986, but increased over the 1974-86 and 1982-86 means. The catch was within the 95% confidence interval of each mean (Table 6). Effort increased over 1986; CPUE declined from 1986 but was similar to the means.

SFA 7: The commercial catch of both small and large salmon in 1988 declined from 1987 and the 1974-87 and 1983-87 means. The catch for each component was below the lower limit of the 95% confidence interval of each mean (Appendix 1j).

The recreational catch of grilse in 1988 increased over 1986 and the 1974-86 and 1982-86 means. The catch was within the 95% confidence interval of each mean (Table 6). Effort increased over 1986 and the means; CPUE declined from 1986 and the 1982-86 mean, but increased over the 1974-86 mean.

SFA 8: The commercial catch of small salmon in 1988 was down from 1987 and the 1974-87 and 1983-87 means. The catch was below the lower limit of the 95% confidence interval of each mean (Appendix 1k). The commercial catch of large salmon was down from 1987 and the means. The 1988 catch was below the lower limit of the 95% confidence interval of the 1974-87 mean.

The 1988 recreational catch of grilse declined from 1986 and the 1974-86 and 1982-86 means. The catch was within the 95% confidence interval of each mean (Table 6). Effort and CPUE also declined from 1986 and the means.

SFA 9: The commercial catch of small salmon in 1988 was the same as in 1987; the catch, however, declined from the 1974-87 and 1983-87 means. This was the only SFA in insular Newfoundland where the catch of large salmon improved over 1987 and the means.

In the recreational fishery, the catch of grilse in 1988 declined from 1986 and the 1974-86 and 1982-86 means. The catch was within the 95% confidence interval of each mean (Table 6). Effort and CPUE also declined from 1986 and the means.

A number of counting fences have been operated on rivers in SFA 9 for the past several years. The rivers involved are Biscay Bay River, Northeast Brook (Trepassey), Colinet River, and Little Salmonier River. Counts of grilse (Table 7) and large salmon (Table 8) in 1988 for Biscay Bay River and Northeast Brook (Trepassey) were down from 1986. Because of a washout of the counting fence, partial counts only are available for Colinet River. There was no counting fence operated on Little Salmonier River in 1988.

SFA 10: In 1988, commercial catches of small and large salmon decreased from 1987 and the 1974-87 and 1983-87 means. The catch of each component was below the the lower limit of the 95% confidence interval of each mean (Appendix 1m).

The 1988 recreational catch of grilse decreased from 1986 and the 1974-86 and 1982-86 means. The catch was within the 95% confidence interval of each mean (Table 6). Effort showed a decrease from 1986 and each mean; CPUE decreased from 1986, but increased over the means.

The count of grilse at the Northeast River (Placentia) fishway in 1988 was the second highest on record (Table 7). The count of large salmon, however, was among the lowest recorded (Table 8).

SFA 11: The 1988 commercial catch of both small and large salmon declined from 1987 and the 1974-87 and 1983-87 means. Catches were below the lower limit of the 95% confidence interval of each mean for both components (Appendix 1n).

In the recreational fishery, the catch of grilse in 1988 decreased from 1986 and the 1974-86 and 1982-86 means. The catch, however, was within the 95% confidence interval of each mean (Table 6).

The count of grilse (Table 7) and large salmon (Table 8) at the Grand Bank fishway in 1988 was down from 1986.

Discussion

While the overall catch of small salmon in the commercial fishery in Labrador in 1988 was similar to 1987, the catch in insular Newfoundland decreased below the lower limit of the 95% confidence interval of the 1974-87 and 1983-87 means. The commercial catch of large salmon in 1988 was below 1987 and the lower limit of the 95% confidence interval of each mean for insular Newfoundland. In Labrador, the 1988 catch of large salmon decreased from 1987 and both means and was below the lower limit of the 95% confidence interval of the 1974-87 mean.

In 1987, there was a marked increase in commercial catches of both small and large salmon in SFA 2 (attributable to Statistical Section 51) and in SFA 3 compared to historic levels, while most other SFAs experienced decreases. It was hypothesized that extensive ice coverage in northern Labrador, accompanied by low sea-surface temperatures, possibly displaced northern stocks farther south, thereby contributing to these increases (O'Connell et al. 1988). No such disproportionate distribution of catches was noted in 1988.

Overall catches of both grilse and large salmon in the recreational fishery in Labrador in 1988 were the best experienced in recent years and were among the highest on record. In insular Newfoundland, the overall recreational catch of grilse was similar to historic levels. However, when catches are examined on the basis of individual SFAs, it is apparent that the increased catches in SFAs 3-7 were responsible for maintaining the overall catch near historic levels; catches and effort expenditure in SFAs 8-11 declined in comparison to recent years (1974-86, 1982-86). Recreational catches in SFAs 8-11 were hampered by extremely high water levels during the first 3-4 weeks of the angling season in 1988.

For Labrador, levels of catch in the commercial and recreational fisheries suggest that the overall abundance of small salmon in 1988 was comparable to 1987. The decrease in catch of large salmon in the commercial fishery in 1988 compared to 1987, coupled with only a slight increase in the the recreational catch, suggests that the abundance of this component decreased in 1988.

For insular Newfoundland, commercial and recreational catches and fishway counts suggest that the overall abundance of both small and large salmon in 1988 was lower than in 1987.

References

Ash, E.G.M. 1984. Atlantic salmon commercial catch statistics, Newfoundland and Labrador, 1982. Can. Data Rep. Fish. Aquat. Sci. 478: iv + 115 p.

Ash, E.G.M., and M. F. O'Connell. 1986. Atlantic salmon fishery in Newfoundland and Labrador, commercial and recreational, 1983. Can. Data Rep. Fish. Aquat. Sci. 608: v + 304 p.

1987a. Atlantic salmon fishery in Newfoundland and Labrador, commercial and recreational, 1984. Can. Data Rep. Fish. Aquat. Sci. 658: v + 294 p.

1987b. Atlantic salmon fishery in Newfoundland and Labrador, commercial and recreational, 1985. Can. Data Rep. Fish. Aquat. Sci. 672: v + 284 p.

Ash, E.G.M., and R. J. Tucker. 1984. Angled catch and effort data for Atlantic salmon in Newfoundland and Labrador, and for other fishes in Labrador, 1982. Can. Data Rep. Fish. Aquat. Sci. 465: xv + 96 p.

Cochran, W. G. 1977. Sampling techniques. John Wiley & Sons, Inc. 428 p.

May, A. W., and W. H. Lear. 1971. Digest of Canadian Atlantic salmon catch statistics. Fish. Res. Board Can. Tech. Rep. 270: 106 p.

Moores, R. B., and E.G.M. Ash. 1984. Angled catch and effort data for Atlantic salmon in Newfoundland and Labrador, and for other fishes in Labrador, 1981. Can. Data Rep. Fish. Aquat. Sci. 451: xv + 88 p.

Moores, R. B., and E. G. Dawe. 1980. Atlantic salmon commercial catch data, Newfoundland and Labrador, 1979. Can. Data Rep. Fish. Aquat. Sci. 221: iv + 95 p.

Moores, R. B., R. W. Penney, and R. J. Tucker. 1978. Atlantic salmon angled catch and effort data, Newfoundland and Labrador, 1953-77. Fish. Mar. Serv. Data Rep. 84: 274 p.

Moores, R. B., and R. J. Tucker. 1979. Atlantic salmon angled catch and effort data, Newfoundland and Labrador, 1978. Fish. Mar. Serv. Data Rep. 147: 106 p.

1980. Atlantic salmon angled catch and effort data, Newfoundland and Labrador, 1979. Can. Data Rep. Fish. Aquat. Sci. 212: xiv + 86 p.

Moores, R. B., A. W. Veitch, and E.G.M. Ash. 1984. Atlantic salmon commercial catch statistics, Newfoundland and Labrador, 1980 and 1981. Can. Data Rep. Fish. Aquat. Sci. 466: iv + 213 p.

O'Connell, M. F., J. B. Dempson, E.G.M. Ash, and N. M. Cochrane. 1988. Status of Atlantic salmon (Salmo salar L.) stocks of the Newfoundland Region, 1987. CAFSAC Res. Doc. 88/10. 69 p.

Pippy, J. 1982. (Chairman). Report of the Working Group on the Interception of Mainland Salmon in Newfoundland. Can. MS Rep. Fish. Aquat. Sci. 1654: x + 196 p.

Reddin, D. G., and F. A. Day. 1980. 1969-72 Newfoundland and Labrador Atlantic salmon (Salmo salar) commercial catch data. Can. Data Rep. Fish. Aquat. Sci. 220: iv + 55 p.

Reddin, D. G., and P. B. Short. 1981. The 1976 Newfoundland and Labrador Atlantic salmon commercial landings. Can. Tech. Rep. Fish. Aquat. Sci. 1007: iv + 55 p.

Reddin, D. G., and D. E. Waldron. 1976. 1975 Newfoundland and Labrador Atlantic salmon commercial catch data. Fish. Mar. Serv. Tech. Rep. 684: 183 p.

Short, P. B., and D. G. Reddin. 1981a. Newfoundland and Labrador Atlantic salmon commercial catch data - 1977. Can. Data Rep. Fish. Aquat. Sci. 282: iv + 103 p.

1981b. Newfoundland and Labrador Atlantic salmon commercial catch data - 1978. Can. Data Rep. Fish. Aquat. Sci. 282: iv + 114 p.

Waldron, D. E. 1974. 1973 Newfoundland and Labrador Atlantic salmon commercial catch data. Data Record Series No. NEW/D-74-1, Res. Dev. Branch, Nfld. Region. 127 p.

Table 1. The number of licensed commercial Atlantic salmon fishermen for each SFA and the total for the insular Newfoundland and Labrador portions of the Newfoundland Region.

	No. of fishermen by SFA												
Year	1	2	Nfld Region (Labrador)	3	4	5	6	7	8	9	10	11	Nfld Region (Insular)
1974	108	323	431	626	1203	693	519	513	320	135	331	314	4654
1975	187	421	608	732	1399	765	596	635	314	103	388	402	5334
1976	179	464	662	660	1234	685	525	518	308	103	335	354	4722
1977	196	432	628	621	1154	622	469	446	264	86	303	334	4299
1978	290	403	693	629	1148	621	473	459	261	87	284	326	4288
1979	272	410	682	630	1148	617	457	445	266	85	296	321	4265
1980	271	352	623	617	1163	591	446	449	246	81	279	311	4183
1981	266	350	616	602	1126	550	412	429	246	75	269	305	4014
1982	262	339	601	569	1047	493	394	375	239	71	255	279	3722
1983	273	417	690	578	1033	479	383	356	239	68	250	263	3649
1984	248	378	626	512	892	395	317	277	200	58	201	213	3065
1985	234	351	585	439	695	283	259	229	186	45	162	182	2480
1986	212	356	568	438	696	281	257	231	183	45	164	185	2480
1987	213	362	575	433	693	275	255	231	175	43	163	182	2450
1988	182	361	543	432	682	259	241	217	177	43	156	173	2380

Table 2. The amount of licensed commercial Atlantic salmon gear for each SFA and the total for the insular Newfoundland and Labrador portions of the Newfoundland Region.

	No. of gear units (91.5 m) by SFA											
Year	1	2	Nfld Region (Labrador)	3	4	5	6	7	8	9	10	11	Nfld Region (Insular)
1974	288	1900	2188	2371	3151	2014	1589	1861	1608	407	1031	1008	15040
1975	556	2164	2720	2704	3962	2565	2074	2567	1875	432	1330	1504	19013
1976	549	2418	3055	2528	3547	2354	2074	2276	1823	347	1207	1377	17533
1977	612	2253	2865	2364	3327	2163	1876	1973	1582	292	1063	1288	15928
1978	1001	2167	3168	2406	3371	2172	1901	2066	1588	287	1069	1298	16158
1979	979	2244	3223	2418	3349	2169	1853	1971	1617	283	1051	1279	15990
1980	1018	1958	2976	2378	3485	2320	1834	2024	1536	268	1003	1268	16116
1981	981	1948	2929	2309	3390	1944	1709	1954	1524	252	979	1254	15315
1982	1046	1828	2874	2083	3002	1551	1536	1548	1395	222	837	1097	13271
1983	1080	1879	2959	2315	3729	1661	1499	1402	1089	235	934	1069	13933
1984	992	1471	2463	1892	3124	1341	1160	1012	774	201	718	786	11008
1985	936	1402	2338	1750	2768	1122	1036	914	744	178	644	722	9878
1986	848	1424	2272	1752	2782	1124	1028	922	732	180	656	740	9916
1987	852	1471	2323	1730	2764	1100	1018	920	700	172	652	728	9784
1988	728	1430	2158	1724	2724	1036	964	862	704	172	624	692	9502

Table 3. Atlantic salmon commercial catch data and recreational catch and effort data for the whole Newfoundland Region and for the insular Newfoundland and Labrador portions of the Region, 1974-88. The 1974-87 and 1983-87 means and 95% confidence limits are included.

	Commercial catch (tonnes)[1]									Recreational catch (no.) and effort (rod days)											
	Small			Large			Total			Grilse (x10²)			Large salmon	Total (x10²)	Effort (x10²)			CPUE		
	Ins		NF	Ins		NF	Ins		NF	Ins		NF			Ins		NF	Ins		NF
Year	NF	Lab	Reg	NF	Lab	Reg	NF	Lab	Reg	NF	Lab	Reg	Lab	Lab	Nf	Lab	Reg	NF	Lab	Reg
1974	432	94	526	586	524	1110	1017	617	1634	155	18	173	512	23	679	28	707	0.23	0.82	0.25
1975	466	176	642	641	429	1070	1106	605	1711	161	29	190	173	31	602	20	622	0.27	1.52	0.31
1976	372	137	509	548	523	1071	922	661	1583	164	32	196	520	38	649	33	681	0.26	1.15	0.30
1977	352	117	469	651	481	1132	1004	599	1603	214	29	243	693	36	691	33	724	0.33	1.09	0.36
1978	171	56	227	380	375	755	550	430	980	197	21	218	584	27	636	38	674	0.32	0.70	0.34
1979	334	81	415	195	213	408	526	294	820	179	32	211	490	37	502	32	534	0.36	1.16	0.41
1980	498	209	707	538	579	1117	1034	788	1822	234	29	262	552	34	666	25	691	0.36	1.38	0.40
1981	379	224	603	556	538	1094	936	763	1699	304	35	339	300	38	779	19	797	0.40	2.06	0.44
1982	362	144	506	270	362	632	629	506	1135	260	28	288	541	34	852	31	883	0.31	1.08	0.34
1983	263	91	354	269	239	508	534	330	864	216	24	240	298	27	822	31	853	0.27	0.85	0.29
1984	241	48	289	240	170	410	482	217	699	248	20	268	325	23	797	31	829	0.31	0.73	0.33
1985	348	75	423	242	136	378	590	211	801	265	20	285	194	22	828	27	855	0.32	0.82	0.34
1986	392	126	518	282	271	553	674	397	1071	242	24	266	283	27	790	31	821	0.31	0.88	0.33
1987	434	155	589	357	327	684	794	482	1276	130	35	165	418	39	478	38	516	0.27	1.04	0.33
1988	227	144	371	178	212	390	407	356	763	240	39	279	459	44	736	45	780	0.33	0.97	0.36
$\bar{x}$ ± 95 C.L.																				
1974-87[2]																				
	360	124	484	411	369	780	771	493	1264	218	27		420	31	715	30		0.31	1.04	
	±51	±31	±77	±96	±85	±176	±130	±109	±231	±28	±3		±91	±4	±63	±3		±0.02	±0.17	
1983-87[3]																				
	336	99	435	278	229	507	615	327	942	246	24		304	27	818	32		0.30	0.87	
	±102	±52	±150	±59	±95	±151	±153	±145	±287	±24	±8		±100	±8	±31	±5		±0.02	±0.15	

[1]Figures for 1988 are preliminary.
[2]Except for Insular NF, recreational catch, $\bar{x}$ = 1974-86.
[3]Except for Insular NF, recreational catch, $\bar{x}$ = 1982-86.

Table 4. Commercial and recreational catches and recreational effort and catch per unit effort in 1988 for each SFA, the insular and Labrador portions of the Newfoundland Region, and the entire Newfoundland Region, expressed as percentages in relation to 1987, the 1974–87 mean, and the 1983–87 mean.

	Commercial catch (tonnes)									Recreational catch (no.)											
	Small			Large			Total			Grilse			Large salmon			Effort (rod days)			CPUE		
Salmon Fishing Area	1987	$\bar{x}$ 1974–87	$\bar{x}$ 1983–87	1987	$\bar{x}$ 1974–87	$\bar{x}$ 1983–87	1987	$\bar{x}$ 1974–87	$\bar{x}$ 1983–87	1987[1]	$\bar{x}$ 1974–87[2]	$\bar{x}$ 1983–87[3]	1987	$\bar{x}$ 1974–87	$\bar{x}$ 1983–87	1987[1]	$\bar{x}$ 1974–87[2]	$\bar{x}$ 1983–87[3]	1987[1]	$\bar{x}$ 1974–87[2]	$\bar{x}$ 1983–87[3]
1	+83	−5	+18	−32	−47	−23	−15	−38	−12	+12	+48	+54	+1	−47	−8	+47	+95	+76	−25	−38	−19
2	−15	+21	+52	−36	−41	−3	−28	−25	+15	+13	+46	+63	+14	+96	+108	+10	+38	+31	+3	+9	+27
NF Region (Labrador)	−7	+16	+45	−35	−43	−7	−26	−28	+9	+11	+44	+63	+10	+9	+51	+18	+50	+41	−7	−7	+11
3	−50	−23	−10	−57	−35	−22	−53	−29	−16	+127	+22	+20				+108	+19	+6	+9	+4	+11
4	−39	−22	−26	−51	−52	−42	−44	−36	−32	+6	+10	−2				−13	0	−12	+24	+6	+9
5	−44	−29	−35	−29	−67	−47	−38	−52	−40	+3	+52	+39				−9	+14	−6	+14	+33	+48
6	−56	−60	−55	−50	−73	−47	−54	−67	−52	−4	+30	+21				+31	+29	+15	−24	0	+8
7	−50	−65	−34	−31	−67	−24	−38	−66	−29	+25	+25	+6				+135	+10	+15	−47	+14	−11
8	−30	−57	−46	−8	−66	−12	−17	−63	−29	−43	−5	−11				−32	0	−9	−15	−11	−6
9	0	−44	−32	+200	+15	+67	+14	−30	−15	−40	−25	−34				−19	−15	−23	−27	−17	−17
10	−63	−70	−71	−44	−70	−55	−54	−68	−63	−26	−4	−15				−19	−36	−32	−8	+47	+22
11	−65	−70	−70	−65	−81	−69	−66	−77	−70	−9	−3	−17				−3	+31	−1	−6	−28	−17
NF Region (Insular)	−48	−37	−32	−50	−57	−36	−49	−47	−34	−1	+10	−2				−7	+3	−10	+6	+6	+10
NF Region (Total)	−37	−23	−15	−43	−50	−23	−40	−40	−19												

[1]Except for Insular Newfoundland, where 1986 is used for comparison purposes.

[2]Except for Insular Newfoundland, $\bar{x}$=1974–86.

[3]Except for Insular Newfoundland, $\bar{x}$=1982–86.

Table 5. Atlantic salmon commercial catch data and recreational catch and effort data for 1988 by Salmon Fishing Area (SFA) for the Newfoundland Region. Catches in 1987, the 1974-87 mean, and the 1983-87 mean (in parentheses) are included.

Salmon Fishing Area	Commercial catch (tonnes)									Recreational catch (no.) and effort (rod days)													
	1988[1]			1987			x 1974-87 (1983-87)			1988					1987 (1986)[2]					x 1974-87[3] (1983-87)				
	Sm	Lg	Tot	Sm	Lg	Tot	Sm	Lg	Tot	Gr	Lg	Tot	Effort	CPUE	Gr	Lg	Tot	Effort	CPUE	Gr	Lg	Tot	Effort	CPUE
NF Reg. (Labrador)																								
1	22	42	64	12	62	75	23.2	79.7	102.9	915	136	1051	1408	0.75	817	135	952	955	1.00	616.2	255.2	871.4	722.0	1.21
							(18.6)	(54.2)	(73.0)											(595.4)	(148.6)	(744.0)	(799.0)	(0.93)
2	122	170	292	143	265	407	100.6	289.4	389.9	3016	323	3339	3096	1.08	2662	283	2945	2806	1.05	2065.8	165.0	2230.8	2250.4	0.99
							(80.4)	(174.4)	(254.4)											(1844.8)	(155.0)	(1999.8)	(2355.6)	(0.85)
NF Reg. (Insular)																								
3	94	78	173	189	180	369	121.6	120.4	242.1	1756			2979	0.59	563			1121	0.50	1435.1	12.7	1445.8	2509.8	0.57
							(104.4)	(100.4)	(204.8)						(772)			(1430)	(0.54)	(1466.8)	(30.0)	(1484.8)	(2803.0)	(0.53)
4	66	35	101	109	71	180	84.4	72.9	157.2	9854			27413	0.36	5453			18564	0.29	8960.4	344.5	9249.5	27353.6	0.34
							(88.6)	(60.2)	(148.8)						(9293)			(31650)	(0.29)	(10062.0)	(190.0)	(10176.0)	(31038.0)	(0.33)
5	22	15	37	39	21	60	31.1	45.3	76.3	4166			10497	0.40	1664			5267	0.32	2734.5	44.5	2772.1	9239.8	0.30
							(33.6)	(28.2)	(61.8)						(4053)			(11510)	(0.35)	(3006.0)	(74.7)	(3050.8)	(11131.2)	(0.27)
6	12	10	22	27	20	48	29.9	36.8	66.6	429			3392	0.13	137			1306	0.10	329.2	9.7	337.5	2636.2	0.13
							(26.8)	(19.0)	(46.2)						(445)			(2596)	(0.17)	(354.0)	(10.7)	(360.4)	(2957.0)	(0.12)
7	5	11	16	10	16	26	14.2	33.2	47.4	128			1645	0.08	28			632	0.04	102.6	5.0	106.8	1500.8	0.07
							(7.6)	(14.4)	(22.4)						(102)			(700)	(0.15)	(120.8)	(16.0)	(130.4)	(1428.2)	(0.09)
8	7	12	19	10	13	23	16.2	35.1	51.2	79			474	0.17	43			268	0.16	83.5	1.3	84.6	472.8	0.19
							(13.0)	(13.6)	(26.6)						(138)			(696)	(0.20)	(89.2)	(4.7)	(92.0)	(523.2)	(0.18)
9	5	3	8	5	1	7	9.0	2.6	11.5	1373			7157	0.19	867			5994	0.14	1827.5	26.4	1849.8	8379.2	0.23
							(7.4)	(1.8)	(9.4)						(2298)			(8807)	(0.26)	(2088.0)	(36.3)	(2109.8)	(9254.8)	(0.23)
10	7	5	13	19	9	28	23.4	16.8	40.3	1142			5198	0.22	429			3348	0.13	1189.6	21.4	1207.7	8093.5	0.15
							(24.2)	(11.0)	(35.2)						(1535)			(6387)	(0.24)	(1342.8)	(30.3)	(1361.0)	(7627.8)	(0.18)
11	9	9	18	26	26	53	30.4	48.1	78.6	5033			14811	0.34	3829			11309	0.34	5176.1	31.2	5200.4	11291.4	0.47
							(30.0)	(29.4)	(59.6)						(5546)			(15233)	(0.36)	(6099.0)	(31.7)	(6118.0)	(15016.6)	(0.41)

[1]Preliminary.
[2]Except for Insular NF where 1986 (in parentheses) is used for comparison purposes.
[3]Except for Insular NF, $\bar{x}$ = 1974-86 (1982-86).

Table 6. Mean catch of grilse in the recreational fishery, 1974-86 and 1982-86, plus 95% confidence limits for SFAs 3-11.

SFA	$\bar{x}$ 1982-86	95% Confidence interval LCL	95% Confidence interval UCL	$\bar{x}$ 1974-86	95% Confidence Interval LCL	95% Confidence Interval UCL
3	1,466.8	565.3	2,368.3	1,435.1	1,061.1	1,809.1
4	10,062.0	8,493.9	11,630.1	8,958.1	7,584.7	10,331.5
5	3,006.0	2,092.5	3,919.5	2,734.5	2,153.5	3,315.5
6	354.0	259.1	448.9	329.2	255.4	403.0
7	120.8	89.5	152.1	102.6	80.6	124.6
8	89.2	45.2	133.2	83.5	66.5	100.5
9	2,088.0	1,745.4	2,430.6	1,827.5	1,583.7	2,071.3
10	1,342.8	1,147.6	1,538.0	1,189.6	981.2	1,398.0
11	6,099.0	4,777.5	7,420.5	5,176.1	4,397.1	5,955.1

Table 7. Counts of grilse from fishways and counting fences in insular Newfoundland 1955–88 by Salmon Fishing Area (SFA); also shown are means ($\bar{x}$), standard deviations (SD), and coefficients of variation (CV).

	Fishways									Counting fences			
	SFA 4				SFA 5			SFA 10	SFA 11	SFA 9			
Year	1	2A	2B	3	4	5	6	7	8	9	10	11	12
1955							53						
1956					324[a]	558	32						
1957				642	28[a]	141	21						
1958	843			1072	332[a]	677	10						
1959	438	886		591	295[a]	394	120						
1960	494	1013	94	291		490	86						
1961	153	839	319	41		318	74						
1962			1037			496	284						
1963	267	1202	491			551	372						
1964	1199		1752			419	246						
1965	394	1228	587			474	334						
1966	292	829[a]	942			368	134						
1967	116	1372	822			613	373						
1968	682		1334			715	409	57[a]					
1969	222	979	892			658	463						
1970	392		1023			754	563						
1971	364	961	902	714		580	316	159					
1972	112	794	495	541	838	609	330	236					
1973	714	205		970	1079[a]	455	340	399[a]					
1974	616	2583		862	770[a]		161	224					
1975	788	9010	6012		1119[a]		782	186[a]					
1976	353	4106	3037				346	294					
1977	1307	6058	4294				371						
1978	1125	3757	2633	755	1412	810	436	390					
1979	2959	6693	3923	404[a]	1283[a]	569	455	454					
1980	1760		4550	997	1703	842	422	433					
1981	2696[a]	9015[a]	4286	2459	2415	1115	619	334[a]					
1982	2149	7654[a]	2836	1425	1281	963	625	86[a]				133	198[a]
1983	2205[a]		3031[a]	978	1195	1210	853	233		2330		272	925[a]
1984	1346[a]	17389	6398[a]	1081	1379	1232	911	419		2430	89	359	1220
1985	2074	16648	5987	1663	904	1557	960	384		1377[a]	124	170	437[a]
1986	2091	9674	3065	1064	1036	1051	726	725	211	2516	158	296	893
1987	407	8977	2316	493	914	974	570	325	155	1302	91	368	612
1988	1459	8972	3436	1562	772	1737	795	543	149	1695	97	202[a]	
1977–86													
$\bar{x}$	1971.2	9611.0	4100.3	1202.9	1400.9	1038.8	637.8	384.2					
SD	596.7	4922.4	1295.8	592.1	443.1	286.9	217.3	172.8					
CV	30.27	51.22	31.60	49.20	31.63	27.61	34.07	44.98					
1982–86													
$\bar{x}$	1973.0	12841.2	4263.4	1242.2	1159.0	1202.6	815.0	369.4				246.0	734.6
SD	354.3	4902.8	1769.2	290.7	190.2	227.4	137.6	238.8				92.9	410.3
CV	17.96	38.18	41.50	23.40	16.41	18.91	16.88	64.65				37.76	55.85
1978–87													
$\bar{x}$	1881.2	9975.9	3902.5	1131.9	1352.2	1032.3	657.7	378.3					
SD	754.9	4725.7	1409.0	601.7	445.3	271.3	198.4	164.0					
CV	40.13	47.37	36.11	53.16	32.93	26.28	30.17	43.35					
1983–87													
$\bar{x}$	1624.6	13172.0	4159.4	1055.8	1085.6	1204.8	804.0	417.2		1991.0		293.0	817.4
SD	761.0	4460.9	1885.5	416.0	201.8	224.6	157.3	185.9		599.0		79.9	302.6
CV	46.84	33.87	45.33	39.40	18.59	18.64	19.56	44.56		30.09		27.27	37.01

1 Indian Brook
2 Exploits River
(a) Bishop's Falls
(b) Gt. Rattling Brook
3 Gander River (Salmon Brook)
4 Middle Brook
5 L. Terra Nova River
6 U. Terra Nova River
7 Northeast River (Placentia)
8 Grand Bank Brook
9 Biscay Bay River
10 Northeast Brook (Trepassey)
11 Colinet River
12 Little Salmonier River

[a]Partial counts.

Table 8. Counts of large salmon at fishways and counting fences in insular Newfoundland 1955-88 by Salmon Fishing Area (SFA); also shown are means ($\bar{x}$), standard deviations (SD), and coefficients of variation (CV).

	Fishways									Counting fences			
	SFA 4				SFA 5			SFA 10	SFA 11	SFA 9			
Year	1	2A	2B	3	4	5	6	7	8	9	10	11	12
1955							24						
1956					56[a]	36	44						
1957				323	2[a]	41	1						
1958	80			502	231[a]	195	0						
1959	18	119[a]		290	13[a]	67	20						
1960	25	157	9	183		217	0						
1961	1	118	53	15		99	1						
1962			31			275	4						
1963	22	65	37			320	35						
1964	45		116			297	18						
1965	0	203	190			254	51						
1966	3	506[a]	470			220	2						
1967	0	710	382			359	42						
1968	0		687			374	28	11[a]					
1969	3	498	290			393	136						
1970	0		199			470	170						
1971	0	300	261	494		277	121	21					
1972	0	113	234[a]	53	10	348	202	34					
1973	3	89		135	9[a]	299	222	64[a]					
1974	8	411		8	77[a]		122	9					
1975	11	1441	544		9[a]		48	36[a]					
1976	3	493	121				37	56					
1977	23	584	221				262						
1978	13	302	78	52	16	20	88	32					
1979	113	276	119	6[a]	54[a]	170	30	37					
1980	25		418	15	91	40	15	34					
1981	151[a]	1695[a]	514	33	38	90	28	62[a]					
1982	67	133	123	18	20	19	8	36[a]				116	239[a]
1983	48[a]		223[a]	12	75	57	76	22		88		43	197[a]
1984	19[a]	355	111[a]	38	57	107	98	44		83	33	97	295
1985	27	181	38	26	27	112	60	0		21[a]	41	42	87[a]
1986	12	353	174	12	15	140	58	39	4	101	30	31	133
1987	3	310	41	9	19	56	38	16	2	106	30	55	72
1988	10	147	10	24	14	206	45	11	2	58	19	14[a]	
1977-86													
$\bar{x}$	49.8	484.9	201.9	23.6	43.7	83.9	72.3	34.0					
SD	47.3	507.3	152.5	15.0	27.3	53.5	73.4	16.7					
CV	94.98	104.62	75.53	63.56	62.47	63.77	101.5	49.12					
1982-86													
$\bar{x}$	34.6	255.5	133.8	21.2	38.8	87.0	60.0	28.2				65.8	190.2
SD	22.6	115.4	69.6	11.0	26.0	48.4	33.2	17.8				38.0	82.7
CV	65.32	45.17	52.02	51.89	67.0	55.63	55.33	63.12				57.75	43.48
1978-87													
$\bar{x}$	47.8	450.6	183.9	22.1	41.2	81.1	49.9	32.2					
SD	48.9	508.9	160.4	14.8	26.9	51.2	30.9	16.7					
CV	102.30	112.93	87.22	66.97	65.29	63.13	61.92	51.86					
1983-87													
$\bar{x}$	21.8	299.7	117.4	19.4	38.6	94.4	66.0	24.2		79.8		53.6	156.8
SD	17.1	81.8	81.5	12.3	26.2	36.8	22.4	17.8		34.2		25.7	91.3
CV	78.44	27.29	69.42	63.40	67.88	38.98	33.94	73.55		42.86		47.95	58.23

1 Indian Brook
2 Exploits River
(a) Bishop's Falls
(b) Gt. Rattling Brook
3 Gander River (Salmon Brook)
4 Middle Brook
5 L. Terra Nova River
6 U. Terra Nova River
7 Northeast River (Placentia)
8 Grand Bank Brook
9 Biscay Bay River
10 Northeast Brook (Trepassey)
11 Colinet River
12 Little Salmonier River

[a]Partial counts.

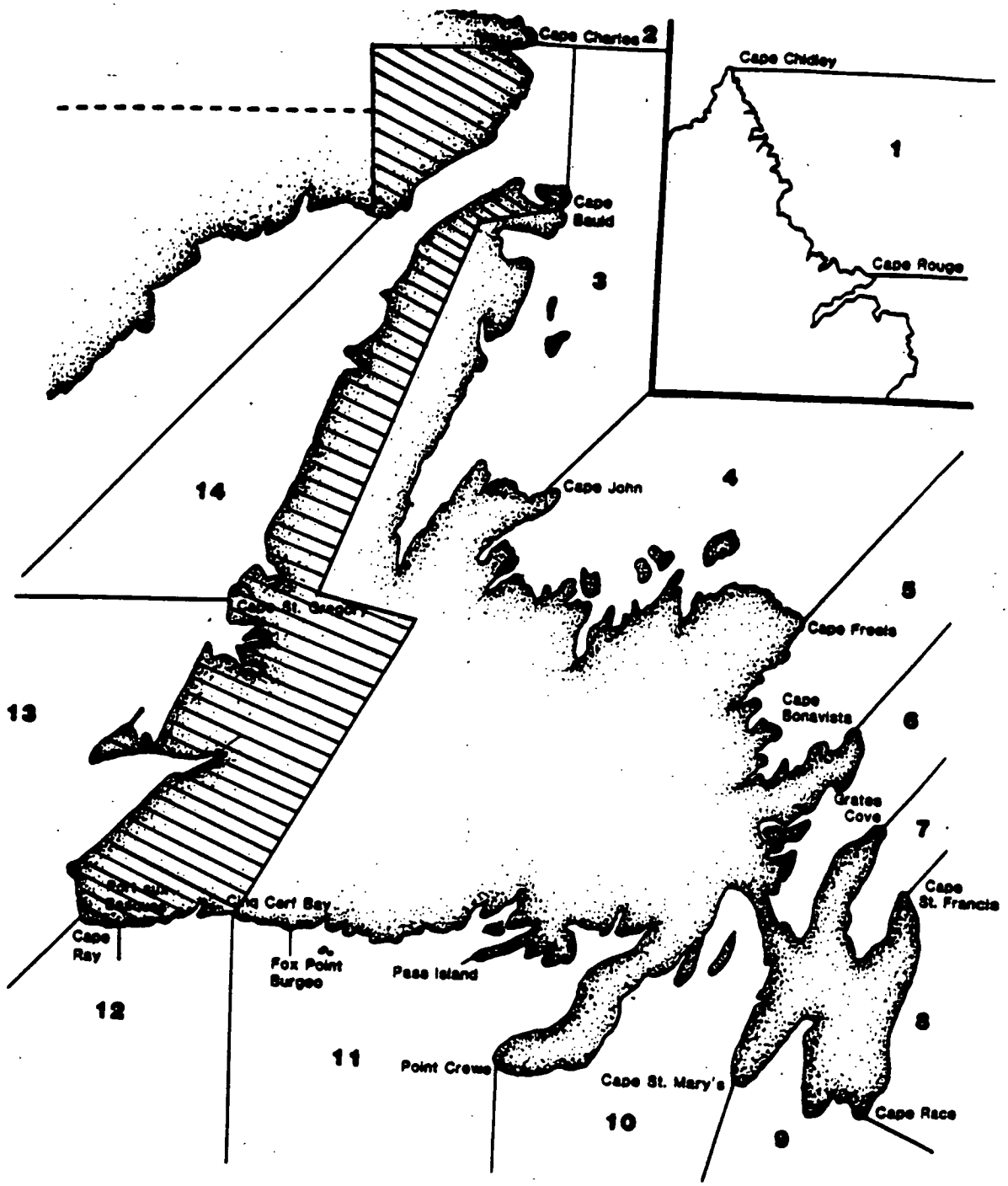

Fig. 1. Boundaries of Salmon Fishing Areas in insular Newfoundland and Labrador. Cross-hatched portion denotes area belonging to the Gulf Region.

Appendix 1a. Summary of commercial Atlantic salmon catch and effort data for insular Newfoundland (Newfoundland Region), 1974-88. Weight in metric tonnes.

INSULAR NEWFOUNDLAND (NFLD REGION)

YEAR	SMALL WEIGHT	SMALL NUMBER	LARGE WEIGHT	LARGE NUMBER	TOTAL WEIGHT	TOTAL NUMBER	PERCENT SMALL(W)	PERCENT SMALL(N)	POTENTIAL EFFORT
1974	432	231372	586	123464	1017	354836	42.48	65.21	15040
1975	466	245898	641	138352	1106	384250	42.13	63.99	19013
1976	372	199752	548	124172	922	323924	40.35	61.67	17533
1977	352	179273	651	138857	1004	318130	35.06	56.35	15928
1978	171	86859	380	80323	550	167182	31.09	51.95	16158
1979	334	168148	195	43441	526	211589	63.50	79.47	15990
1980	498	240126	538	113730	1034	353856	48.16	67.86	16116
1981	379	201068	556	116613	936	317681	40.49	63.29	15315
1982	362	189032	270	62038	629	251070	57.55	75.29	13271
1983	263	140165	269	60734	534	200899	49.25	69.77	13933
1984	241	130131	240	54283	482	184414	50.00	70.56	11008
1985	348	191216	242	57537	590	248753	58.98	76.87	9878
1986	392	200267	282	60699	674	260966	58.16	76.74	9916
1987	434	224980	357	77867	794	302847	54.66	74.29	9784
1988[1]	227	122822	178	40562	407	163384	55.77	75.17	9502
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1974-1987):									
MEAN:	360.29	187734.79	411.07	89436.43	771.29	277171.21	*46.71	*67.73	14205.93
S.D.:	88.86	44828.31	166.89	34545.92	224.92	69122.78	* 1.50	* 1.26	3007.35
95% LCL:	308.99	161856.11	314.73	69493.61	641.44	237267.72	*43.77	*65.26	12469.84
95% UCL:	411.58	213613.46	507.41	109379.25	901.13	317074.71	*49.66	*70.21	15942.02
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1983-1987):									
MEAN:	335.60	177351.80	278.00	62224.00	614.80	239575.80	*54.59	*74.03	10903.80
S.D.:	82.52	40615.36	47.64	9141.62	122.88	47654.29	* 1.56	* 1.22	1765.56
95% LCL:	233.16	126929.25	218.86	50875.00	462.25	180414.67	*51.54	*71.63	8711.91
95% UCL:	438.04	227774.35	337.14	73573.00	767.35	298736.93	*57.64	*76.42	13095.69

NOTE: FLAGGED VALUES INDICATE CALCULATIONS OBTAINED USING RATIO ESTIMATORS

[1]Preliminary figures.

Appendix 1b. Summary of commercial Atlantic salmon catch and effort data for the Labrador portion of Newfoundland Region, 1974-88. Weight in metric tonnes.

LABRADOR (NFLD REGION)

YEAR	SMALL WEIGHT	SMALL NUMBER	LARGE WEIGHT	LARGE NUMBER	TOTAL WEIGHT	TOTAL NUMBER	PERCENT SMALL(W)	PERCENT SMALL(N)	POTENTIAL EFFORT
1974	94	46993	524	106902	617	153895	15.24	30.54	2188
1975	176	92497	429	99769	605	192266	29.09	48.11	2720
1976	137	65057	523	116351	661	181408	20.73	35.86	2967
1977	117	58335	481	98316	599	156651	19.53	37.24	2865
1978	56	29630	375	79758	430	109388	13.02	27.09	3168
1979	81	38520	213	48364	294	86884	27.55	44.33	3223
1980	209	94986	579	115817	788	210803	26.52	45.06	2976
1981	224	108022	538	104728	763	212750	29.36	50.77	2929
1982	144	72070	362	77277	506	149347	28.46	48.26	2874
1983	91	46149	239	52723	330	98872	27.58	46.68	2959
1984	48	23169	170	36984	217	60153	22.12	38.52	2463
1985	75	39899	136	30041	211	69940	35.55	57.05	2338
1986	126	63100	271	53223	397	116323	31.74	54.25	2272
1987	155	78065	327	68056	482	146121	32.16	53.42	2307
1988[1]	144	76001	212	44966	356	120967	40.45	62.83	2158
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1974-1987):									
MEAN:	123.79	61178.00	369.07	77736.36	492.86	138914.36	*25.12	*44.04	2732.07
S.D.:	54.17	25693.57	147.58	29810.02	188.65	50096.14	* 1.37	* 1.82	349.73
95% LCL:	92.51	46345.50	283.88	60527.50	383.95	109994.64	*22.43	*40.46	2530.18
95% UCL:	155.06	76010.50	454.27	94945.21	601.76	167834.07	*27.80	*47.62	2933.96
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1983-1987):									
MEAN:	99.00	50076.40	228.60	48205.40	327.40	98281.80	*30.24	*50.95	2467.80
S.D.:	42.15	21189.55	76.81	14962.42	116.71	34898.01	* 1.90	* 2.43	283.88
95% LCL:	46.67	23770.32	133.25	29630.07	182.50	54957.14	*26.51	*46.19	2115.38
95% UCL:	151.33	76382.48	323.95	66780.73	472.30	141606.46	*33.96	*55.72	2820.22

NOTE: FLAGGED VALUES INDICATE CALCULATIONS OBTAINED USING RATIO ESTIMATORS

[1]Preliminary figures.

Appendix 1c. Summary of commercial Atlantic salmon catch and effort data for the entire Newfoundland Region, 1974-88. Weight in metric tonnes.

NFLD. & LABRADOR (NFLD REGION)

YEAR	SMALL WEIGHT	SMALL NUMBER	LARGE WEIGHT	LARGE NUMBER	TOTAL WEIGHT	TOTAL NUMBER	PERCENT SMALL(W)	PERCENT SMALL(N)	POTENTIAL EFFORT
1974	526	278365	1110	230366	1634	508731	32.19	54.72	17228
1975	642	338395	1070	238121	1711	576516	37.52	58.70	21733
1976	509	264809	1071	240523	1583	505332	32.15	52.40	20500
1977	469	237608	1132	237173	1603	474781	29.26	50.05	18793
1978	227	116489	755	160081	980	276570	23.16	42.12	19326
1979	415	206668	408	91805	820	298473	50.61	69.24	19213
1980	707	335112	1117	229547	1822	564659	38.80	59.35	19092
1981	603	309090	1094	221341	1699	530431	35.49	58.27	18244
1982	506	261102	632	139315	1135	400417	44.58	65.21	16145
1983	354	186314	508	113457	864	299771	40.97	62.15	16892
1984	289	153300	410	91267	699	244567	41.34	62.68	13471
1985	423	231115	378	87578	801	318693	52.81	72.52	12216
1986	518	263367	553	113922	1071	377289	48.37	69.81	12188
1987	589	303045	684	145923	1276	448968	46.16	67.50	12091
1988[1]	371	198823	390	85528	763	284351	48.62	69.92	11660
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1974-1987):									
MEAN:	484.07	248912.79	780.14	167172.79	1264.14	416085.57	*38.29	*59.82	16938.00
S.D.:	134.05	65804.05	304.82	62578.14	399.94	114166.67	* 1.63	* 1.63	3251.42
95% LCL:	406.69	210925.14	604.18	131047.41	1033.26	350178.95	*35.10	*56.62	15061.00
95% UCL:	561.45	286900.43	956.11	203298.16	1495.02	481992.20	*41.48	*63.02	18815.00
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1983-1987):									
MEAN:	434.60	227428.20	506.60	110429.40	942.20	337857.60	*46.13	*67.31	13371.60
S.D.:	121.06	59599.62	121.96	23294.55	230.87	78136.68	* 2.39	* 2.09	2048.13
95% LCL:	284.30	153437.36	355.19	81510.03	655.58	240853.65	*41.45	*63.22	10828.92
95% UCL:	584.90	301419.04	658.01	139348.77	1228.82	434861.55	*50.80	*71.41	15914.28

NOTE: FLAGGED VALUES INDICATE CALCULATIONS OBTAINED USING RATIO ESTIMATORS

[1]Preliminary figures.

Appendix 1d. Summary of commercial Atlantic salmon catch and effort data for Salmon Fishing Area 1, 1974-88. Weight in metric tonnes.

SALMON FISHING AREA 1

YEAR	SMALL WEIGHT	SMALL NUMBER	LARGE WEIGHT	LARGE NUMBER	TOTAL WEIGHT	TOTAL NUMBER	PERCENT SMALL(W)	PERCENT SMALL(N)	POTENTIAL EFFORT
1974	12	6211	35	7113	47	13324	25.53	46.62	288
1975	42	22105	76	17603	118	39708	35.59	55.67	556
1976	30	14124	139	30882	169	45006	17.75	31.38	549
1977	25	12363	98	20046	123	32409	20.33	38.15	612
1978	28	14530	124	26321	151	40851	18.54	35.57	1001
1979	16	7419	72	16444	88	23863	18.18	31.09	979
1980	41	18587	112	22337	153	40924	26.80	45.42	1018
1981	20	9616	123	24853	143	34469	13.99	27.90	981
1982	18	9174	66	14006	84	23180	21.43	39.58	1046
1983	20	9907	61	13239	81	23146	24.69	42.80	1080
1984	16	7683	32	6832	48	14515	33.33	52.93	992
1985	21	11054	51	11349	72	22403	29.17	49.34	936
1986	24	11794	65	12821	89	24615	26.97	47.91	848
1987	12	6248	62	13080	75	19328	16.00	32.33	836
1988[1]	22	11682	42	8986	64	20668	34.38	56.52	728
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1974-1987):									
MEAN:	23.21	11486.79	79.71	16923.29	102.93	28410.07	*22.55	*40.43	837.29
S.D.:	9.41	4624.88	33.93	7171.67	39.77	10364.58	* 1.83	* 2.60	240.38
95% LCL:	17.78	8816.91	60.13	12783.19	79.97	22426.76	*18.96	*35.33	698.52
95% UCL:	28.64	14156.66	99.30	21063.38	125.88	34393.38	*26.15	*45.54	976.05
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1983-1987):									
MEAN:	18.60	9337.20	54.20	11464.20	73.00	20801.40	*25.48	*44.89	938.40
S.D.:	4.67	2323.12	13.48	2695.93	15.41	4009.23	* 2.63	* 3.23	101.96
95% LCL:	12.80	6453.13	37.47	8117.30	53.87	15824.09	*20.32	*38.55	811.81
95% UCL:	24.40	12221.27	70.93	14811.10	92.13	25778.71	*30.64	*51.22	1064.99

NOTE: FLAGGED VALUES INDICATE CALCULATIONS OBTAINED USING RATIO ESTIMATORS

[1]Preliminary figures.

Appendix 1e. Summary of commercial Atlantic salmon catch and effort data for Salmon Fishing Area 2, 1974-88. Weight in metric tonnes.

SALMON FISHING AREA 2

YEAR	SMALL WEIGHT	SMALL NUMBER	LARGE WEIGHT	LARGE NUMBER	TOTAL WEIGHT	TOTAL NUMBER	PERCENT SMALL(W)	PERCENT SMALL(N)	POTENTIAL EFFORT
1974	82	40782	489	99789	570	140571	14.39	29.01	1900
1975	134	70392	353	82166	487	152558	27.52	46.14	2164
1976	107	50933	384	85469	492	136402	21.75	37.34	2418
1977	92	45972	383	78270	476	124242	19.33	37.00	2253
1978	28	15100	251	53437	279	68537	10.04	22.03	2167
1979	65	31101	141	31920	206	63021	31.55	49.35	2244
1980	168	76399	467	93480	635	169879	26.46	44.97	1958
1981	204	98406	415	79875	620	178281	32.90	55.20	1948
1982	126	62896	296	63271	422	126167	29.86	49.85	1828
1983	71	36242	178	39484	249	75726	28.51	47.86	1879
1984	32	15486	138	30152	169	45638	18.93	33.93	1471
1985	54	28845	85	18692	139	47537	38.85	60.68	1402
1986	102	51306	206	40402	308	91708	33.12	55.94	1424
1987	143	71817	265	54976	407	126793	35.14	56.64	1471
1988[1]	122	64319	170	35980	292	100299	41.78	64.13	1430
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1974-1987):									
MEAN:	100.57	49691.21	289.36	60813.07	389.93	110504.29	*25.79	*44.97	1894.79
S.D.:	50.80	24184.90	129.23	26067.03	166.06	44646.37	* 1.66	* 2.17	340.34
95% LCL:	71.25	35729.65	214.75	45764.98	294.07	84730.64	*22.54	*40.71	1698.31
95% UCL:	129.90	63652.78	363.96	75861.16	485.79	136277.93	*29.04	*49.23	2091.26
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1983-1987):									
MEAN:	80.40	40739.20	174.40	36741.20	254.40	77480.40	*31.60	*52.58	1529.40
S.D.:	43.34	21661.65	68.08	13440.83	108.17	33718.62	* 2.10	* 2.69	197.73
95% LCL:	26.60	13847.02	89.89	20054.88	120.12	35619.92	*27.49	*47.31	1283.93
95% UCL:	134.20	67631.38	258.91	53427.52	388.68	119340.88	*35.72	*57.85	1774.87

NOTE: FLAGGED VALUES INDICATE CALCULATIONS OBTAINED USING RATIO ESTIMATORS

[1]Preliminary figures.

Appendix 1f. Summary of commercial Atlantic salmon catch and effort data for Salmon Fishing Area 3, 1974-88. Weight in metric tonnes.

SALMON FISHING AREA 3

YEAR	SMALL WEIGHT	SMALL NUMBER	LARGE WEIGHT	LARGE NUMBER	TOTAL WEIGHT	TOTAL NUMBER	PERCENT SMALL(W)	PERCENT SMALL(N)	POTENTIAL EFFORT
1974	66	33129	83	18492	149	51621	44.30	64.18	2371
1975	119	59495	121	26850	240	86345	49.58	68.90	2704
1976	169	88837	174	40514	343	129351	49.27	68.68	2528
1977	122	61215	240	51168	363	112383	33.61	54.47	2364
1978	49	24384	82	17463	131	41847	37.40	58.27	2406
1979	204	101970	65	15509	269	117479	75.84	86.80	2418
1980	167	79798	165	34637	332	114435	50.30	69.73	2378
1981	174	93658	175	36148	349	129806	49.86	72.15	2309
1982	111	58977	79	17262	190	76239	58.42	77.36	2083
1983	100	55163	94	20579	194	75742	51.55	72.83	2315
1984	58	31539	88	19540	146	51079	39.73	61.75	1892
1985	73	40484	50	11394	123	51878	59.35	78.04	1750
1986	102	53685	90	18538	192	72223	53.13	74.33	1752
1987	189	95777	180	38316	369	134093	51.22	71.43	1730
1988[1]	94	49987	78	17014	173	67001	54.34	74.61	1724
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1974-1987):									
MEAN:	121.64	62722.21	120.43	26172.14	242.14	88894.36	*50.24	*70.56	2214.29
S.D.:	51.23	25632.96	56.15	11862.85	93.28	33276.33	* 2.97	* 2.38	315.53
95% LCL:	92.07	47924.71	88.02	19323.90	188.30	69684.45	*44.41	*65.89	2032.13
95% UCL:	151.22	77519.72	152.84	33020.38	295.99	108104.26	*56.06	*75.22	2396.44
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1983-1987):									
MEAN:	104.40	55329.60	100.40	21673.40	204.80	77003.00	*50.98	*71.85	1887.80
S.D.:	50.80	24622.70	47.90	9977.75	96.68	33863.79	* 2.17	* 1.86	247.41
95% LCL:	41.34	24761.38	40.93	9286.37	84.77	34962.29	*46.72	*68.21	1580.65
95% UCL:	167.46	85897.82	159.87	34060.43	324.83	119043.71	*55.23	*75.50	2194.95

NOTE: FLAGGED VALUES INDICATE CALCULATIONS OBTAINED USING RATIO ESTIMATORS

[1]Preliminary figures.

Appendix 1g. Summary of commercial Atlantic salmon catch and effort data for Salmon Fishing Area 4, 1974-88. Weight in metric tonnes.

SALMON FISHING AREA 4

YEAR	SMALL WEIGHT	SMALL NUMBER	LARGE WEIGHT	LARGE NUMBER	TOTAL WEIGHT	TOTAL NUMBER	PERCENT SMALL(W)	PERCENT SMALL(N)	POTENTIAL EFFORT
1974	54	26821	52	11456	105	38277	51.43	70.07	3151
1975	142	71225	103	22950	246	94175	57.72	75.63	3962
1976	57	30249	60	14303	117	44552	48.72	67.90	3547
1977	85	44691	96	20371	181	65062	46.96	68.69	3327
1978	36	17821	68	14564	104	32385	34.62	55.03	3371
1979	45	21524	33	7403	78	28927	57.69	74.41	3349
1980	135	64024	110	24029	245	88053	55.10	72.71	3485
1981	87	44106	128	26632	215	70738	40.47	62.35	3390
1982	98	50764	69	16022	166	66786	59.04	76.01	3002
1983	74	37560	56	12789	130	50349	56.92	74.60	3729
1984	73	38857	50	10976	123	49833	59.35	77.97	3124
1985	68	37957	43	10019	111	47976	61.26	79.12	2768
1986	119	59902	81	17047	200	76949	59.50	77.85	2782
1987	109	54935	71	15087	180	70022	60.56	78.45	2764
1988[1]	66	34766	35	8059	101	42825	65.35	81.18	2724
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1974-1987):									
MEAN:	84.43	42888.29	72.86	15974.86	157.21	58863.14	*53.70	*72.86	3267.93
S.D.:	32.76	15987.27	27.54	5668.10	55.07	20174.68	* 2.12	* 1.59	361.62
95% LCL:	65.52	33659.08	56.96	12702.75	125.43	47216.62	*49.56	*69.74	3059.17
95% UCL:	103.34	52117.49	88.76	19246.96	189.00	70509.67	*57.85	*75.98	3476.69
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1983-1987):									
MEAN:	88.60	45842.20	60.20	13183.60	148.80	59025.80	*59.54	*77.66	3033.40
S.D.:	23.56	10722.89	15.55	2897.96	38.87	13454.09	* 0.65	* 0.68	417.82
95% LCL:	59.35	32530.11	40.90	9585.88	100.55	42323.02	*58.27	*76.33	2514.70
95% UCL:	117.85	59154.29	79.50	16781.32	197.05	75728.58	*60.81	*79.00	3552.10

NOTE: FLAGGED VALUES INDICATE CALCULATIONS OBTAINED USING RATIO ESTIMATORS

[1]Preliminary figures.

Appendix 1h. Summary of commercial Atlantic salmon catch and effort data for Salmon Fishing Area 5, 1974-88. Weight in metric tonnes.

SALMON FISHING AREA 5

YEAR	SMALL WEIGHT	SMALL NUMBER	LARGE WEIGHT	LARGE NUMBER	TOTAL WEIGHT	TOTAL NUMBER	PERCENT SMALL(W)	PERCENT SMALL(N)	POTENTIAL EFFORT
1974	31	15344	35	7551	65	22895	47.69	67.02	2014
1975	48	28024	112	24380	160	52404	30.00	53.48	2565
1976	13	6284	44	10811	57	17095	22.81	36.76	2354
1977	38	18031	90	19150	128	37181	29.69	48.50	2163
1978	22	11578	59	12785	81	24363	27.16	47.52	2172
1979	11	5342	18	3849	28	9191	39.29	58.12	2169
1980	40	18246	47	10609	87	28855	45.98	63.23	2320
1981	28	14252	65	14366	93	28618	30.11	49.80	1944
1982	37	18607	23	6089	60	24696	61.67	75.34	1551
1983	27	13723	31	7288	58	21011	46.55	65.31	1661
1984	25	13390	33	7756	58	21146	43.10	63.32	1341
1985	41	21323	31	7518	72	28841	56.94	73.93	1122
1986	36	18044	25	6062	61	24106	59.02	74.85	1124
1987	39	21588	21	5794	60	27382	65.00	78.84	1100
1988[1]	22	12065	15	4282	37	16347	59.46	73.81	1036
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1974-1987):									
MEAN:	31.14	15984.00	45.29	10286.29	76.29	26270.29	*40.82	*60.84	1828.57
S.D.:	10.78	5995.56	27.65	5738.42	33.26	9899.69	* 3.77	* 3.34	505.56
95% LCL:	24.92	12522.86	29.32	6973.58	57.09	20555.35	*33.43	*54.30	1536.72
95% UCL:	37.36	19445.14	61.25	13598.99	95.49	31985.22	*48.22	*67.39	2120.42
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1983-1987):									
MEAN:	33.60	17613.60	28.20	6883.60	61.80	24497.20	*54.37	*71.90	1269.60
S.D.:	7.20	3959.68	5.02	892.94	5.85	3561.17	* 3.89	* 2.84	239.81
95% LCL:	24.66	12697.79	21.97	5775.05	54.54	20076.13	*46.75	*66.34	971.88
95% UCL:	42.54	22529.41	34.43	7992.15	69.06	28918.27	*61.99	*77.46	1567.32

NOTE: FLAGGED VALUES INDICATE CALCULATIONS OBTAINED USING RATIO ESTIMATORS

[1]Preliminary figures.

Appendix 1i. Summary of commercial Atlantic salmon catch and effort data for Salmon Fishing Area 6, 1974-88. Weight in metric tonnes.

SALMON FISHING AREA 6

YEAR	SMALL WEIGHT	SMALL NUMBER	LARGE WEIGHT	LARGE NUMBER	TOTAL WEIGHT	TOTAL NUMBER	PERCENT SMALL(W)	PERCENT SMALL(N)	POTENTIAL EFFORT
1974	74	39102	94	19185	168	58287	44.05	67.09	1589
1975	40	21994	67	14171	106	36165	37.74	60.82	2074
1976	21	10204	33	6648	54	16852	38.89	60.55	2074
1977	34	15236	57	11849	90	27085	37.78	56.25	1876
1978	21	10193	55	10689	76	20882	27.63	48.81	1901
1979	20	9661	9	1757	29	11418	68.97	84.61	1853
1980	29	14568	35	6919	63	21487	46.03	67.80	1834
1981	23	12843	50	10356	73	23199	31.51	55.36	1709
1982	23	12006	20	4278	43	16284	53.49	73.73	1536
1983	11	6432	18	4086	30	10518	36.67	61.15	1499
1984	19	10436	15	3532	34	13968	55.88	74.71	1160
1985	46	26911	19	4462	65	31373	70.77	85.78	1036
1986	31	16227	23	4715	54	20942	57.41	77.49	1028
1987	27	15197	20	4365	48	19562	56.25	77.69	1018
1988[1]	12	7273	10	2047	22	9320	54.55	78.04	964
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1974-1987):									
MEAN:	29.93	15786.43	36.79	7643.71	66.64	23430.14	*44.91	*67.38	1584.79
S.D.:	15.59	8536.32	24.48	4935.22	36.76	12341.26	* 3.19	* 2.95	385.86
95% LCL:	20.93	10858.55	22.66	4794.69	45.42	16305.73	*38.66	*61.59	1362.03
95% UCL:	38.93	20714.31	50.92	10492.74	87.86	30554.56	*51.15	*73.17	1807.54
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1983-1987):									
MEAN:	26.80	15040.60	19.00	4232.00	46.20	19272.60	*58.01	*78.04	1148.20
S.D.:	13.20	7707.93	2.92	451.44	14.39	7969.82	* 5.10	* 3.53	204.44
95% LCL:	10.41	5471.48	15.38	3671.55	28.33	9378.35	*48.01	*71.11	894.39
95% UCL:	43.19	24609.72	22.62	4792.45	64.07	29166.85	*68.01	*84.97	1402.01

NOTE: FLAGGED VALUES INDICATE CALCULATIONS OBTAINED USING RATIO ESTIMATORS

[1]Preliminary figures.

Appendix 1j. Summary of commercial Atlantic salmon catch and effort data for Salmon Fishing Area 7, 1974-88. Weight in metric tonnes.

SALMON FISHING AREA 7

YEAR	SMALL WEIGHT	SMALL NUMBER	LARGE WEIGHT	LARGE NUMBER	TOTAL WEIGHT	TOTAL NUMBER	PERCENT SMALL(W)	PERCENT SMALL(N)	POTENTIAL EFFORT
1974	43	21478	83	17277	126	38755	34.13	55.42	1861
1975	19	9819	56	12153	75	21972	25.33	44.69	2567
1976	15	7983	33	7042	48	15025	31.25	53.13	2276
1977	23	11318	56	11875	78	23193	29.49	48.80	1973
1978	10	4771	40	8572	50	13343	20.00	35.76	2066
1979	5	2347	7	1418	11	3765	45.45	62.34	1971
1980	22	10012	52	10747	74	20759	29.73	48.23	2024
1981	18	9363	55	11168	73	20531	24.66	45.60	1954
1982	6	3091	11	2425	17	5516	35.29	56.04	1548
1983	7	3741	16	3478	23	7219	30.43	51.82	1402
1984	6	3962	12	2736	19	6698	31.58	59.15	1012
1985	8	4685	16	3582	25	8267	32.00	56.67	914
1986	7	3417	12	2634	19	6051	36.84	56.47	922
1987	10	4793	16	3483	26	8276	38.46	57.91	920
1988[1]	5	2860	11	2459	16	5319	31.25	53.77	862
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1974-1987):									
MEAN:	14.21	7198.57	33.21	7042.14	47.43	14240.71	*29.97	*50.55	1672.14
S.D.:	10.39	5084.61	23.79	4927.05	33.59	9824.36	* 1.49	* 1.81	552.38
95% LCL:	8.22	4263.31	19.48	4197.83	28.04	8569.26	*27.05	*47.00	1353.26
95% UCL:	20.21	10133.84	46.95	9886.45	66.82	19912.17	*32.89	*54.10	1991.03
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1983-1987):									
MEAN:	7.60	4119.60	14.40	3182.60	22.40	7302.20	*33.93	*56.42	1034.00
S.D.:	1.52	598.95	2.19	457.56	3.29	976.81	* 1.66	* 1.22	209.67
95% LCL:	5.72	3376.02	11.68	2614.56	18.32	6089.53	*30.67	*54.02	773.70
95% UCL:	9.48	4863.18	17.12	3750.64	26.48	8514.87	*37.19	*58.81	1294.30

NOTE: FLAGGED VALUES INDICATE CALCULATIONS OBTAINED USING RATIO ESTIMATORS

[1]Preliminary figures.

Appendix 1k. Summary of commercial Atlantic salmon catch and effort data for Salmon Fishing Area 8, 1974-88. Weight in metric tonnes.

SALMON FISHING AREA 8

YEAR	SMALL WEIGHT	SMALL NUMBER	LARGE WEIGHT	LARGE NUMBER	TOTAL WEIGHT	TOTAL NUMBER	PERCENT SMALL(W)	PERCENT SMALL(N)	POTENTIAL EFFORT
1974	50	27847	84	18210	134	46057	37.31	60.46	1608
1975	28	14513	83	17669	111	32182	25.23	45.10	1875
1976	17	9128	50	10628	67	19756	25.37	46.20	1823
1977	15	7915	55	11754	70	19669	21.43	40.24	1582
1978	3	1487	28	5901	31	7388	9.68	20.13	1588
1979	5	2719	9	1881	14	4600	35.71	59.11	1617
1980	22	10362	67	13953	89	24315	24.72	42.62	1536
1981	13	6940	38	8644	51	15584	25.49	44.53	1524
1982	9	3457	9	2238	17	5695	52.94	60.70	1395
1983	9	4836	15	3441	24	8277	37.50	58.43	1089
1984	15	8156	16	3898	31	12054	48.39	67.66	774
1985	15	6604	16	4589	31	11193	48.39	59.00	744
1986	16	8029	8	2010	24	10039	66.67	79.98	732
1987	10	5498	13	2743	23	8241	43.48	66.72	700
1988[1]	7	3853	12	2712	19	6565	36.84	58.69	704
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1974-1987):									
MEAN:	16.21	8392.21	35.07	7682.79	51.21	16075.00	*31.66	*52.21	1327.64
S.D.:	11.68	6512.37	27.87	5824.27	37.74	11656.83	* 2.96	* 3.36	427.80
95% LCL:	9.47	4632.72	18.98	4320.53	29.43	9345.70	*25.85	*45.63	1080.68
95% UCL:	22.95	12151.70	51.16	11045.04	73.00	22804.30	*37.47	*58.78	1574.60
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1983-1987):									
MEAN:	13.00	6624.60	13.60	3336.20	26.60	9960.80	*48.87	*66.51	807.80
S.D.:	3.24	1482.08	3.36	1000.85	4.04	1710.18	* 4.39	* 3.89	159.42
95% LCL:	8.98	4784.65	9.43	2093.68	21.59	7837.68	*40.27	*58.88	609.89
95% UCL:	17.02	8464.55	17.77	4578.72	31.61	12083.92	*57.48	*74.13	1005.71

NOTE: FLAGGED VALUES INDICATE CALCULATIONS OBTAINED USING RATIO ESTIMATORS

[1]Preliminary figures.

Appendix 11. Summary of commercial Atlantic salmon catch and effort data for Salmon Fishing Area 9, 1974-88. Weight in metric tonnes.

SALMON FISHING AREA 9

YEAR	SMALL WEIGHT	SMALL NUMBER	LARGE WEIGHT	LARGE NUMBER	TOTAL WEIGHT	TOTAL NUMBER	PERCENT SMALL(W)	PERCENT SMALL(N)	POTENTIAL EFFORT
1974	8	4396	2	420	10	4816	80.00	91.28	407
1975	6	3395	3	628	9	4023	66.67	84.39	432
1976	5	2833	1	310	7	3143	71.43	90.14	347
1977	4	2454	1	266	6	2720	66.67	90.22	292
1978	7	3702	5	1013	11	4715	63.64	78.52	287
1979	21	11445	6	1239	26	12684	80.77	90.23	283
1980	12	6153	3	522	14	6675	85.71	92.18	268
1981	13	7024	4	834	17	7858	76.47	89.39	252
1982	13	6706	2	395	14	7101	92.86	94.44	222
1983	7	3891	2	447	9	4338	77.78	89.70	235
1984	10	5203	2	336	12	5539	83.33	93.93	201
1985	9	4849	2	483	11	5332	81.82	90.94	178
1986	6	3131	2	418	8	3549	75.00	88.22	180
1987	5	2907	1	300	7	3207	71.43	90.65	172
1988[1]	5	2787	3	663	8	3450	62.50	80.78	172
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1974-1987):									
MEAN:	9.00	4863.50	2.57	543.64	11.50	5407.14	*78.26	*89.95	268.29
S.D.:	4.56	2395.27	1.50	290.36	5.20	2601.58	* 2.14	* 1.00	81.63
95% LCL:	6.37	3480.75	1.70	376.02	8.50	3905.29	*74.07	*87.99	221.16
95% UCL:	11.63	6246.25	3.44	711.27	14.50	6908.99	*82.46	*91.90	315.41
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1983-1987):									
MEAN:	7.40	3996.20	1.80	396.80	9.40	4393.00	*78.72	*90.97	193.20
S.D.:	2.07	1016.07	0.45	76.59	2.07	1038.87	* 2.10	* 1.01	25.80
95% LCL:	4.83	2734.78	1.24	301.71	6.83	3103.28	*74.61	*88.98	161.17
95% UCL:	9.97	5257.62	2.36	491.89	11.97	5682.72	*82.84	*92.95	225.23

NOTE: FLAGGED VALUES INDICATE CALCULATIONS OBTAINED USING RATIO ESTIMATORS

[1]Preliminary figures.

Appendix 1m. Summary of commercial Atlantic salmon catch and effort data for Salmon Fishing Area 10, 1974-88. Weight in metric tonnes.

SALMON FISHING AREA 10

YEAR	SMALL WEIGHT	SMALL NUMBER	LARGE WEIGHT	LARGE NUMBER	TOTAL WEIGHT	TOTAL NUMBER	PERCENT SMALL(W)	PERCENT SMALL(N)	POTENTIAL EFFORT
1974	62	36686	36	7880	99	44566	62.63	82.32	1031
1975	15	9604	16	3304	31	12908	48.39	74.40	1330
1976	19	11266	20	4269	39	15535	48.72	72.52	1207
1977	19	11366	17	3677	36	15043	52.78	75.56	1063
1978	13	7416	22	4782	35	12198	37.14	60.80	1069
1979	5	3129	14	3106	20	6235	25.00	50.18	1051
1980	35	19347	28	5916	63	25263	55.56	76.58	1003
1981	8	4698	11	2226	19	6924	42.11	67.85	979
1982	30	16820	16	3526	46	20346	65.22	82.67	837
1983	10	5084	12	2767	22	7851	45.45	64.76	934
1984	18	9632	8	1724	26	11356	69.23	84.82	718
1985	40	22460	11	2261	51	24721	78.43	90.85	644
1986	34	15627	15	3471	49	19098	69.39	81.83	656
1987	19	10048	9	1958	28	12006	67.86	83.69	652
1988[1]	7	4406	5	1245	13	5651	53.85	77.97	624
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1974-1987):									
MEAN:	23.36	13084.50	16.79	3633.36	40.29	16717.86	*57.98	*78.27	941.00
S.D.:	15.39	8812.87	7.71	1674.73	21.26	10022.85	* 3.34	* 2.25	213.47
95% LCL:	14.48	7996.97	12.34	2666.56	28.01	10931.82	*51.43	*73.85	817.77
95% UCL:	32.24	18172.03	21.24	4600.15	52.56	22503.89	*64.53	*82.68	1064.23
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1983-1987):									
MEAN:	24.20	12570.20	11.00	2436.20	35.20	15006.40	*68.75	*83.77	720.80
S.D.:	12.38	6674.39	2.74	697.65	13.70	6794.16	* 4.53	* 3.48	122.77
95% LCL:	8.83	4284.18	7.60	1570.10	18.19	6571.69	*59.87	*76.95	568.38
95% UCL:	39.57	20856.22	14.40	3302.30	52.21	23441.11	*77.63	*90.58	873.22

NOTE: FLAGGED VALUES INDICATE CALCULATIONS OBTAINED USING RATIO ESTIMATORS

[1]Preliminary figures.

Appendix 1n. Summary of commercial Atlantic salmon catch and effort data for Salmon Fishing Area 11, 1974-88. Weight in metric tonnes.

SALMON FISHING AREA 11

YEAR	SMALL WEIGHT	SMALL NUMBER	LARGE WEIGHT	LARGE NUMBER	TOTAL WEIGHT	TOTAL NUMBER	PERCENT SMALL(W)	PERCENT SMALL(N)	POTENTIAL EFFORT
1974	44	26569	117	22993	161	49562	27.33	53.61	1008
1975	49	27829	80	16247	128	44076	38.28	63.14	1504
1976	56	32968	133	29647	190	62615	29.47	52.65	1377
1977	12	7047	39	8747	52	15794	23.08	44.62	1288
1978	10	5507	21	4554	31	10061	32.26	54.74	1298
1979	18	10011	34	7279	51	17290	35.29	57.90	1279
1980	36	17616	31	6398	67	24014	53.73	73.36	1268
1981	15	8184	30	6239	46	14423	32.61	56.74	1254
1982	35	18604	41	9803	76	28407	46.05	65.49	1097
1983	18	9735	25	5859	44	15594	40.91	62.43	1069
1984	17	8956	16	3785	33	12741	51.52	70.29	786
1985	48	25943	54	13229	101	39172	47.52	66.23	722
1986	41	22205	26	5804	67	28009	61.19	79.28	740
1987	26	14237	26	5821	53	20058	49.06	70.98	728
1988[1]	9	4825	9	2081	18	6906	50.00	69.87	692
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1974-1987):									
MEAN:	30.36	16815.07	48.07	10457.50	78.57	27272.57	*38.64	*61.66	1101.29
S.D.:	15.59	9013.63	36.41	7635.84	48.95	15871.28	* 3.59	* 3.36	265.64
95% LCL:	21.36	11611.64	27.05	6049.45	50.31	18110.33	*31.61	*55.06	947.94
95% UCL:	39.36	22018.50	69.09	14865.55	106.83	36434.81	*45.66	*68.25	1254.64
MEANS,STANDARD DEVIATIONS AND CONFIDENCE INTERVALS (1983-1987):									
MEAN:	30.00	16215.20	29.40	6899.60	59.60	23114.80	*50.34	*70.15	809.00
S.D.:	13.91	7568.19	14.38	3647.21	26.28	10668.99	* 4.31	* 4.14	147.50
95% LCL:	12.73	6819.56	11.55	2371.71	26.97	9869.63	*41.89	*62.05	625.89
95% UCL:	47.27	25610.84	47.25	11427.49	92.23	36359.97	*58.78	*78.26	992.11

NOTE: FLAGGED VALUES INDICATE CALCULATIONS OBTAINED USING RATIO ESTIMATORS

[1]Preliminary figures.

Appendix 2a. Summary of recreational Atlantic salmon catch and effort data for Newfoundland Region (insular), 1953-88.

NEWFOUNDLAND REGION (INSULAR)

YEAR	EFFORT ROD DAYS	GRILSE <63 CM	SALMON ≥63 CM	TOTAL CATCH	CPUE	PERCENT GRILSE
1953	27955	7519	707	8226	0.29	.
1954	16974	3071	559	3630	0.21	93
1955	11183	4704	394	5098	0.46	89
1956	33532	7660	609	8269	0.25	89
1957	17514	7927	690	8617	0.49	92
1958	16593	9178	876	10054	0.61	90
1959	17570	7972	713	8685	0.49	93
1960	17530	6732	634	7366	0.42	93
1961	13730	4476	302	4778	0.35	96
1962	21641	9201	711	9912	0.46	86
1963	26824	10122	551	10673	0.40	94
1964	34886	15435	846	16281	0.47	92
1965	34083	11895	548	12443	0.37	97
1966	34073	13361	384	13745	0.40	97
1967	38067	9391	178	9569	0.25	99
1968	40004	16244	372	16616	0.42	96
1969	40347	16181	289	16470	0.41	98
1970	38933	15485	180	15665	0.40	99
1971	38417	12933	218	13151	0.34	99
1972	33487	12656	142	12798	0.38	99
1973	46180	19286	164	19450	0.42	99
1974	67894	15518	171	15689	0.23	99
1975	60191	16059	245	16304	0.27	98
1976	64853	16402	320	16722	0.26	98
1977	69057	21375	1186	22561	0.33	93
1978	63599	19723	616	20339	0.32	97
1979	50199	17849	379	18228	0.36	98
1980	66625	23373	720	24093	0.36	96
1981	77884	30428	552	30980	0.40	98
1982	85200	25987	531	26518	0.31	98
1983	82167	21616	695	22311	0.27	97
1984	79740	24831	47	24878	0.31	100
1985	82783	26527	*	26527	0.32	100
1986	79009	24182	*	24182	0.31	100
1987	47809	13013	*	13013	0.27	100
1988	73566	23960	*	23960	0.33	100
MEANS, 95% CONFIDENCE LIMITS, N'S:						
83-87	74301.6	22033.8	371.0	22182.2	0.30	99
$\bar{X}\pm$95%cl	±18494.0	±6633.8	±4116.8	±6635.5	±0.03	±1.51
N	5	5	2	5	5	5
74-87	69786.4	21205.9	496.5	21596.1	0.31	98
$\bar{X}\pm$95%cl	±6878.3	±2889.7	±212.4	±2930.9	±0.03	±0.97
N	14	14	11	14	14	14

PERCENT GRILSE IS CALCULATED BY SMOLT CLASS;
IN THE ABOVE TABLE A PERIOD INDICATES NO DATA FOR THAT YEAR;
* NOT ALLOWED TO RETAIN LARGE SALMON IN INSULAR NEWFOUNDLAND.

Appendix 2b. Summary of recreational Atlantic salmon catch and effort data for Newfoundland Region (Labrador), 1953-88.

NEWFOUNDLAND REGION (LABRADOR)

YEAR	EFFORT ROD DAYS	GRILSE <63 CM	SALMON ≥63 CM	TOTAL CATCH	CPUE	PERCENT GRILSE
1953	.	.	.	.	.	.
1954	100	350	150	500	5.00	.
1955	198	125	8	133	0.67	98
1956	101	20	0	20	0.20	100
1957	342	1022	49	1071	3.13	29
1958	366	849	20	869	2.37	98
1959	500	823	37	860	1.72	96
1960	399	558	39	597	1.50	95
1961	634	713	126	839	1.32	82
1962	611	764	58	822	1.35	92
1963	694	1372	58	1430	2.06	93
1964	1583	1916	121	2037	1.29	92
1965	1826	1544	236	1780	0.97	89
1966	2280	1978	362	2340	1.03	81
1967	1436	1085	195	1280	0.89	91
1968	1821	2131	309	2440	1.34	78
1969	1619	1612	120	1732	1.07	95
1970	2750	2447	241	2688	0.98	87
1971	2639	3007	239	3246	1.23	91
1972	2808	2524	344	2868	1.02	90
1973	5228	6061	577	6638	1.27	81
1974	2779	1761	512	2273	0.82	92
1975	2029	2903	173	3076	1.52	91
1976	3259	3228	520	3748	1.15	85
1977	3316	2932	693	3625	1.09	82
1978	3835	2118	584	2702	0.70	83
1979	3184	3217	490	3707	1.16	81
1980	2472	2862	552	3414	1.38	85
1981	1845	3493	300	3793	2.06	91
1982	3121	2833	541	3374	1.08	87
1983	3128	2372	298	2670	0.85	90
1984	3131	1948	325	2273	0.73	88
1985	2702	2009	194	2203	0.82	91
1986	3051	2393	283	2676	0.88	88
1987	3761	3479	418	3897	1.04	85
1988	4504	3931	459	4390	0.97	88
MEANS, 95% CONFIDENCE LIMITS, N'S:						
$\bar{X}$ 83-87	3154.6	2440.2	303.6	2743.8	0.87	88
$\bar{X}\pm$95%cl	±474.7	±763.9	±100.1	±845.3	±0.15	±3.01
N	5	5	5	5	5	5
$\bar{X}$ 74-87	2972.4	2682.0	420.2	3102.2	1.04	87
$\bar{X}\pm$95%cl	±328.6	±335.2	±91.4	±359.8	±0.17	±2.37
N	14	14	14	14	14	14

PERCENT GRILSE IS CALCULATED BY SMOLT CLASS;
IN THE ABOVE TABLE A PERIOD INDICATES NO DATA FOR THAT YEAR;
* NOT ALLOWED TO RETAIN LARGE SALMON IN INSULAR NEWFOUNDLAND.

Appendix 2c. Summary of recreational Atlantic salmon catch and effort data for Newfoundland Region (total), 1953-88.

NEWFOUNDLAND REGION (TOTAL)

YEAR	EFFORT ROD DAYS	GRILSE <63 CM	SALMON ≥63 CM	TOTAL CATCH	CPUE	PERCENT GRILSE
1953	27955	7519	707	8226	0.29	.
1954	17074	3421	709	4130	0.24	91
1955	11381	4829	402	5231	0.46	89
1956	33633	7680	609	8289	0.25	89
1957	17856	8949	739	9688	0.54	91
1958	16959	10027	896	10923	0.64	91
1959	18070	8795	750	9545	0.53	93
1960	17929	7290	673	7963	0.44	93
1961	14364	5189	428	5617	0.39	94
1962	22252	9965	769	10734	0.48	87
1963	27518	11494	609	12103	0.44	94
1964	36469	17351	967	18318	0.50	92
1965	35909	13439	784	14223	0.40	96
1966	36353	15339	746	16085	0.44	95
1967	39503	10476	373	10849	0.27	98
1968	41825	18375	681	19056	0.46	94
1969	41966	17793	409	18202	0.43	98
1970	41683	17932	421	18353	0.44	98
1971	41056	15940	457	16397	0.40	98
1972	36295	15180	486	15666	0.43	97
1973	51408	25347	741	26088	0.51	95
1974	70673	17279	683	17962	0.25	97
1975	62220	18962	418	19380	0.31	98
1976	68112	19630	840	20470	0.30	96
1977	72373	24307	1879	26186	0.36	91
1978	67434	21841	1200	23041	0.34	95
1979	53383	21066	869	21935	0.41	96
1980	69097	26235	1272	27507	0.40	94
1981	79729	33921	852	34773	0.44	97
1982	88321	28820	1072	29892	0.34	97
1983	85295	23988	993	24981	0.29	97
1984	82871	26779	372	27151	0.33	98
1985	85485	28536	194	28730	0.34	99
1986	82060	26575	283	26858	0.33	99
1987	51570	16492	418	16910	0.33	98
1988	78070	27891	459	28350	0.36	97
MEANS, 95% CONFIDENCE LIMITS, N'S:						
$\bar{X}$ 83-87	77456.2	24474.0	452.0	24926.0	0.32	98
$\bar{X}\pm$95%cl	±18063.1	±5895.5	±390.4	±5804.5	±0.02	±1.35
N	5	5	5	5	5	5
$\bar{X}$ 74-87	72758.8	23887.9	810.4	24698.3	0.34	97
$\bar{X}\pm$95%cl	±6797.7	±2868.2	±267.4	±2901.0	±0.03	±1.13
N	14	14	14	14	14	14

PERCENT GRILSE IS CALCULATED BY SMOLT CLASS;
IN THE ABOVE TABLE A PERIOD INDICATES NO DATA FOR THAT YEAR;
* NOT ALLOWED TO RETAIN LARGE SALMON IN INSULAR NEWFOUNDLAND.

Appendix 2d. Summary of recreational Atlantic salmon catch and effort data for Salmon Fishing Area 1, 1953-88.

SALMON FISHING AREA :01

YEAR	EFFORT ROD DAYS	GRILSE <63 CM	SALMON ≥63 CM	TOTAL CATCH	CPUE	PERCENT GRILSE
1953	.	.	.	.	.	.
1954	.	.	.	.	.	.
1955	.	.	.	.	.	.
1956	.	.	.	.	.	.
1957	.	.	.	.	.	.
1958	.	.	.	.	.	.
1959	.	.	.	.	.	.
1960	.	.	.	.	.	.
1961	.	.	.	.	.	.
1962	.	.	.	.	.	.
1963	.	.	.	.	.	.
1964	44	18	3	21	0.48	.
1965	278	57	75	132	0.47	19
1966	397	367	252	619	1.56	18
1967	468	119	106	225	0.48	78
1968	748	192	222	414	0.55	35
1969	.	.	.	.	.	100
1970	420	275	129	404	0.96	.
1971	523	171	82	253	0.48	77
1972	690	450	170	620	0.90	50
1973	700	533	128	661	0.94	78
1974	469	101	268	369	0.79	67
1975	245	379	117	496	2.02	46
1976	928	891	368	1259	1.36	51
1977	809	688	533	1221	1.51	63
1978	694	875	432	1307	1.88	61
1979	1101	595	323	918	0.83	73
1980	711	677	231	908	1.28	72
1981	414	660	195	855	2.07	78
1982	742	784	363	1147	1.55	65
1983	694	468	136	604	0.87	85
1984	832	681	212	893	1.07	69
1985	946	642	135	777	0.82	83
1986	568	369	125	494	0.87	84
1987	955	817	135	952	1.00	73
1988	1408	915	136	1051	0.75	86
MEANS, 95% CONFIDENCE LIMITS, N'S:						
$\bar{X}$ 83-87	799.0	595.4	148.6	744.0	0.93	79.85
$\bar{X}\pm$95%cl	±207.2	±220.5	±44.4	±239.4	±0.14	±8.80
N	5	5	5	5	5	5
$\bar{X}$ 74-87	722.0	616.2	255.2	871.4	1.21	70.02
$\bar{X}\pm$95%cl	±136.1	±127.3	±75.6	±172.8	±0.22	±5.85
N	14	14	14	14	14	14

PERCENT GRILSE IS CALCULATED BY SMOLT CLASS;
IN THE ABOVE TABLE A PERIOD INDICATES NO DATA FOR THAT YEAR;
* NOT ALLOWED TO RETAIN LARGE SALMON IN INSULAR NEWFOUNDLAND.

Appendix 2e. Summary of recreational Atlantic salmon catch and effort data for Salmon Fishing Area 2, 1953-88.

SALMON FISHING AREA :02

YEAR	EFFORT ROD DAYS	GRILSE <63 CM	SALMON ≥63 CM	TOTAL CATCH	CPUE	PERCENT GRILSE
1953	.	.	.	.	.	.
1954	100	350	150	500	5.00	.
1955	198	125	8	133	0.67	98
1956	101	20	0	20	0.20	100
1957	342	1022	49	1071	3.13	29
1958	366	849	20	869	2.37	98
1959	500	823	37	860	1.72	96
1960	399	558	39	597	1.50	95
1961	634	713	126	839	1.32	82
1962	611	764	58	822	1.35	92
1963	694	1372	58	1430	2.06	93
1964	1539	1898	118	2016	1.31	92
1965	1548	1487	161	1648	1.06	92
1966	1883	1611	110	1721	0.91	93
1967	968	966	89	1055	1.09	95
1968	1073	1939	87	2026	1.89	92
1969	1619	1612	120	1732	1.07	94
1970	2330	2172	112	2284	0.98	94
1971	2116	2836	157	2993	1.41	93
1972	2118	2074	174	2248	1.06	94
1973	4528	5528	449	5977	1.32	82
1974	2310	1660	244	1904	0.82	96
1975	1784	2524	56	2580	1.45	97
1976	2331	2337	152	2489	1.07	94
1977	2507	2244	160	2404	0.96	94
1978	3141	1243	152	1395	0.44	94
1979	2083	2622	167	2789	1.34	88
1980	1761	2185	321	2506	1.42	89
1981	1431	2833	105	2938	2.05	95
1982	2379	2049	178	2227	0.94	94
1983	2434	1904	162	2066	0.85	93
1984	2299	1267	113	1380	0.60	94
1985	1756	1367	59	1426	0.81	96
1986	2483	2024	158	2182	0.88	90
1987	2806	2662	283	2945	1.05	88
1988	3096	3016	323	3339	1.08	89
MEANS, 95% CONFIDENCE LIMITS, N'S:						
$\bar{X}$ 83-87	2355.6	1844.8	155.0	1999.8	0.85	91.74
$\bar{X}\pm$95%cl	±476.0	±698.4	±102.8	±796.1	±0.21	±4.11
N	5	5	5	5	5	5
$\bar{X}$ 74-87	2250.4	2065.8	165.0	2230.8	0.99	93.23
$\bar{X}\pm$95%cl	±262.4	±303.0	±43.7	±313.1	±0.21	±1.74
N	14	14	14	14	14	14

PERCENT GRILSE IS CALCULATED BY SMOLT CLASS;
IN THE ABOVE TABLE A PERIOD INDICATES NO DATA FOR THAT YEAR;
* NOT ALLOWED TO RETAIN LARGE SALMON IN INSULAR NEWFOUNDLAND.

Appendix 2f. Summary of recreational Atlantic salmon catch and effort data for Salmon Fishing Area 3, 1953-88.

SALMON FISHING AREA :03

YEAR	EFFORT ROD DAYS	GRILSE <63 CM	SALMON ≥63 CM	TOTAL CATCH	CPUE	PERCENT GRILSE
1953	77	58	8	66	0.86	.
1954	134	33	0	33	0.25	100
1955	36	11	0	11	0.31	100
1956	164	70	0	70	0.43	100
1957	68	47	0	47	0.69	100
1958	49	23	0	23	0.47	100
1959	82	14	0	14	0.17	100
1960	45	23	0	23	0.51	100
1961	160	58	1	59	0.37	96
1962	186	92	0	92	0.49	100
1963	353	190	0	190	0.54	100
1964	653	368	0	368	0.56	100
1965	889	677	4	681	0.77	99
1966	2298	1190	21	1211	0.53	97
1967	1725	459	2	461	0.27	100
1968	1801	1243	27	1270	0.71	94
1969	2118	945	45	990	0.47	97
1970	1207	784	1	785	0.65	100
1971	1175	742	11	753	0.64	99
1972	1195	498	0	498	0.42	100
1973	1667	1188	2	1190	0.71	100
1974	1890	839	4	843	0.45	100
1975	1948	1107	0	1107	0.57	100
1976	2284	947	1	948	0.42	100
1977	2249	1530	4	1534	0.68	100
1978	2030	758	1	759	0.37	100
1979	2514	2040	0	2040	0.81	100
1980	2585	1743	37	1780	0.69	98
1981	3113	2358	3	2361	0.76	100
1982	3907	2634	88	2722	0.70	96
1983	4075	1617	2	1619	0.40	100
1984	2248	1001	0	1001	0.45	100
1985	2355	1310	*	1310	0.56	100
1986	1430	772	*	772	0.54	100
1987	1121	563	*	563	0.50	100
1988	2979	1756	*	1756	0.59	100
MEANS, 95% CONFIDENCE LIMITS, N'S:						
$\bar{X}$ 83-87	2245.8	1052.6	1.0	1053.0	0.47	99.97
$\bar{X}\pm$95%cl	±1427.7	±521.6	±12.7	±522.4	±0.10	±0.06
N	5	5	2	5	5	5
$\bar{X}$ 74-87	2410.6	1372.8	12.7	1382.8	0.57	99.30
$\bar{X}\pm$95%cl	±476.9	±368.7	±18.2	±377.6	±0.09	±0.90
N	14	14	11	14	14	14

PERCENT GRILSE IS CALCULATED BY SMOLT CLASS;
IN THE ABOVE TABLE A PERIOD INDICATES NO DATA FOR THAT YEAR;
* NOT ALLOWED TO RETAIN LARGE SALMON IN INSULAR NEWFOUNDLAND.

Appendix 2g. Summary of recreational Atlantic salmon catch and effort data for Salmon Fishing Area 4, 1953-88.

SALMON FISHING AREA :04

YEAR	EFFORT ROD DAYS	GRILSE <63 CM	SALMON ≥63 CM	TOTAL CATCH	CPUE	PERCENT GRILSE
1953	8630	2984	501	3485	0.40	.
1954	7344	1172	428	1600	0.22	87
1955	5125	2367	249	2616	0.51	82
1956	10672	3892	458	4350	0.41	84
1957	8789	4423	527	4950	0.56	88
1958	5888	4364	637	5001	0.85	87
1959	6321	3700	520	4220	0.67	89
1960	7051	3441	509	3950	0.56	88
1961	5277	2118	162	2280	0.43	96
1962	8842	4397	482	4879	0.55	81
1963	10910	3710	332	4042	0.37	93
1964	15608	7237	680	7917	0.51	85
1965	13749	4233	318	4551	0.33	96
1966	15249	6433	194	6627	0.43	96
1967	13915	4163	63	4226	0.30	99
1968	15318	5938	201	6139	0.40	95
1969	13807	4024	114	4138	0.30	98
1970	15759	4849	47	4896	0.31	99
1971	11379	3783	58	3841	0.34	99
1972	10778	3444	24	3468	0.32	99
1973	14544	6710	49	6759	0.46	99
1974	22038	5373	82	5455	0.25	99
1975	22384	5943	166	6109	0.27	97
1976	24787	6683	188	6871	0.28	97
1977	28117	8396	1086	9482	0.34	86
1978	24131	8774	502	9276	0.38	94
1979	21496	8026	327	8353	0.39	96
1980	25172	9414	507	9921	0.39	94
1981	32282	13536	361	13897	0.43	96
1982	32929	9973	258	10231	0.31	98
1983	26649	8954	297	9251	0.35	97
1984	29633	9900	15	9915	0.33	100
1985	34329	12190	*	12190	0.36	100
1986	31650	9293	*	9293	0.29	100
1987	18564	5453	*	5453	0.29	100
1988	27413	9854	*	9854	0.36	100
MEANS, 95% CONFIDENCE LIMITS, N'S:						
83-87	28165.0	9158.0	156.0	9220.4	0.33	99.38
$\bar{X}\pm$95%cl	±7521.4	±3011.5	±1791.6	±3009.6	±0.04	±1.61
N	5	5	2	5	5	5
74-87	26725.8	8707.7	344.5	8978.4	0.34	97.02
$\bar{X}\pm$95%cl	±2817.2	±1371.8	±195.3	±1398.5	±0.03	±1.98
N	14	14	11	14	14	14

PERCENT GRILSE IS CALCULATED BY SMOLT CLASS;
IN THE ABOVE TABLE A PERIOD INDICATES NO DATA FOR THAT YEAR;
* NOT ALLOWED TO RETAIN LARGE SALMON IN INSULAR NEWFOUNDLAND.

Appendix 2h. Summary of recreational Atlantic salmon catch and effort data for Salmon Fishing Area 5, 1953-88.

SALMON FISHING AREA :05

YEAR	EFFORT ROD DAYS	GRILSE <63 CM	SALMON ≥63 CM	TOTAL CATCH	CPUE	PERCENT GRILSE
1953	6209	1099	37	1136	0.18	.
1954	3302	499	29	528	0.16	97
1955	1764	815	35	850	0.48	93
1956	12072	1077	62	1139	0.09	93
1957	2326	822	44	866	0.37	96
1958	2719	1384	40	1424	0.52	95
1959	3063	1125	43	1168	0.38	97
1960	2580	767	14	781	0.30	99
1961	2185	409	36	445	0.20	96
1962	2639	973	62	1035	0.39	87
1963	4519	1546	61	1607	0.36	94
1964	4877	2376	63	2439	0.50	96
1965	5231	1803	33	1836	0.35	99
1966	4281	1431	35	1466	0.34	98
1967	3754	1569	25	1594	0.42	98
1968	3732	2226	44	2270	0.61	97
1969	5769	2605	27	2632	0.46	99
1970	3189	2226	35	2261	0.71	99
1971	5963	1680	38	1718	0.29	98
1972	2015	1895	20	1915	0.95	99
1973	3894	2112	12	2124	0.55	99
1974	9335	1637	21	1658	0.18	99
1975	7527	1988	23	2011	0.27	99
1976	6975	1898	65	1963	0.28	97
1977	10572	4616	44	4660	0.44	98
1978	9108	2858	28	2886	0.32	99
1979	3926	1331	20	1351	0.34	99
1980	8155	2702	29	2731	0.33	98
1981	8863	3488	35	3523	0.40	99
1982	9935	2433	53	2486	0.25	99
1983	10195	2357	170	2527	0.25	93
1984	12403	2703	1	2704	0.22	100
1985	11613	3484	*	3484	0.30	100
1986	11510	4053	*	4053	0.35	100
1987	5267	1664	*	1664	0.32	100
1988	10497	4166	*	4166	0.40	100
MEANS, 95% CONFIDENCE LIMITS, N'S:						
$\bar{X}$ 83-87	10197.6	2852.2	85.5	2886.4	0.28	98.88
$\bar{X}\pm$95%cl	±3561.0	±1164.8	±1073.7	±1140.5	±0.07	±3.23
N	5	5	2	5	5	5
$\bar{X}$ 74-87	8956.0	2658.0	44.5	2692.9	0.30	98.72
$\bar{X}\pm$95%cl	±1398.5	±558.3	±30.3	±556.4	±0.05	±1.00
N	14	14	11	14	14	14

PERCENT GRILSE IS CALCULATED BY SMOLT CLASS;
IN THE ABOVE TABLE A PERIOD INDICATES NO DATA FOR THAT YEAR;
* NOT ALLOWED TO RETAIN LARGE SALMON IN INSULAR NEWFOUNDLAND.

Appendix 2i. Summary of recreational Atlantic salmon catch and effort data for Salmon Fishing Area 6, 1953-88.

SALMON FISHING AREA :06

YEAR	EFFORT ROD DAYS	GRILSE <63 CM	SALMON ≥63 CM	TOTAL CATCH	CPUE	PERCENT GRILSE
1953	6513	118	0	118	0.02	0
1954	2515	44	0	44	0.02	100
1955	628	92	0	92	0.15	100
1956	4402	92	2	94	0.02	98
1957	805	87	0	87	0.11	100
1958	592	115	0	115	0.19	100
1959	535	55	0	55	0.10	100
1960	547	54	0	54	0.10	100
1961	512	19	0	19	0.04	100
1962	575	53	0	53	0.09	100
1963	837	93	1	94	0.11	98
1964	978	92	0	92	0.09	100
1965	871	85	3	88	0.10	97
1966	935	90	0	90	0.10	100
1967	1480	89	0	89	0.06	100
1968	1126	120	0	120	0.11	100
1969	917	106	0	106	0.12	100
1970	650	84	3	87	0.13	97
1971	710	55	1	56	0.08	99
1972	1345	119	0	119	0.09	100
1973	1683	250	0	250	0.15	100
1974	2685	303	1	304	0.11	100
1975	1851	94	1	95	0.05	100
1976	2864	247	2	249	0.09	98
1977	1869	401	19	420	0.22	93
1978	2237	296	7	303	0.14	98
1979	1766	244	2	246	0.14	99
1980	2807	320	14	334	0.12	95
1981	3406	605	29	634	0.19	92
1982	3031	288	17	305	0.10	97
1983	3684	296	10	306	0.08	97
1984	3218	312	5	317	0.10	98
1985	2256	429	*	429	0.19	100
1986	2596	445	*	445	0.17	100
1987	1306	137	*	137	0.10	100
1988	3392	429	*	429	0.13	100
MEANS, 95% CONFIDENCE LIMITS, N'S:						
$\bar{X}$ 83-87	2612.0	323.8	7.5	326.8	0.13	99.16
$\bar{X}\pm$95%cl	±1136.1	±154.0	±31.8	±153.3	±0.06	±1.71
N	5	5	2	5	5	5
$\bar{X}$ 74-87	2541.1	315.5	9.7	323.1	0.13	97.69
$\bar{X}\pm$95%cl	±398.1	±73.9	±6.1	±77.1	±0.03	±1.55
N	14	14	11	14	14	14

PERCENT GRILSE IS CALCULATED BY SMOLT CLASS;
IN THE ABOVE TABLE A PERIOD INDICATES NO DATA FOR THAT YEAR;
* NOT ALLOWED TO RETAIN LARGE SALMON IN INSULAR NEWFOUNDLAND.

Appendix 2j. Summary of recreational Atlantic salmon catch and effort data for Salmon Fishing Area 7, 1953-88.

SALMON FISHING AREA :07

YEAR	EFFORT ROD DAYS	GRILSE <63 CM	SALMON ≥63 CM	TOTAL CATCH	CPUE	PERCENT GRILSE
1953	244	43	0	43	0.18	0
1954	41	5	0	5	0.12	100
1955	7	0	0	0	0.00	100
1956	307	27	1	28	0.09	0
1957	59	24	1	25	0.42	96
1958	72	19	0	19	0.26	100
1959	134	13	0	13	0.10	100
1960	128	25	1	26	0.20	93
1961	54	7	2	9	0.17	93
1962	.	.	.	.	.	100
1963	275	36	0	36	0.13	0
1964	660	59	0	59	0.09	100
1965	762	165	1	166	0.22	98
1966	647	97	0	97	0.15	100
1967	997	78	0	78	0.08	100
1968	829	31	1	32	0.04	99
1969	1216	33	0	33	0.03	100
1970	1103	20	1	21	0.02	97
1971	1295	40	0	40	0.03	100
1972	875	61	0	61	0.07	100
1973	1167	131	0	131	0.11	100
1974	2019	133	2	135	0.07	98
1975	1436	40	0	40	0.03	100
1976	1128	30	0	30	0.03	100
1977	1775	78	1	79	0.04	97
1978	1786	99	1	100	0.06	99
1979	1332	125	0	125	0.09	100
1980	1546	102	1	103	0.07	99
1981	1348	123	2	125	0.09	98
1982	1621	155	10	165	0.10	92
1983	1804	139	34	173	0.10	82
1984	1381	96	4	100	0.07	97
1985	1635	112	*	112	0.07	100
1986	700	102	*	102	0.15	100
1987	632	28	*	28	0.04	100
1988	1645	128	*	128	0.08	100
MEANS, 95% CONFIDENCE LIMITS, N'S:						
83-87	1230.4	95.4	19.0	103.0	0.08	94.08
$\bar{X}\pm$95%cl	±667.2	±51.1	±190.6	±64.0	±0.03	±12.36
N	5	5	2	5	5	5
74-87	1438.8	97.3	5.0	101.2	0.07	96.38
$\bar{X}\pm$95%cl	±232.2	±23.2	±6.7	±26.0	±0.02	±4.36
N	14	14	11	14	14	14

PERCENT GRILSE IS CALCULATED BY SMOLT CLASS;
IN THE ABOVE TABLE A PERIOD INDICATES NO DATA FOR THAT YEAR;
* NOT ALLOWED TO RETAIN LARGE SALMON IN INSULAR NEWFOUNDLAND.

Appendix 2k. Summary of recreational Atlantic salmon catch and effort data for Salmon Fishing Area 8, 1953-88.

SALMON FISHING AREA :08

YEAR	EFFORT ROD DAYS	GRILSE <63 CM	SALMON ≥63 CM	TOTAL CATCH	CPUE	PERCENT GRILSE
1953	50	6	0	6	0.12	0
1954	.	.	.	.	.	100
1955	.	.	.	.	.	.
1956	.	.	.	.	.	.
1957	.	.	.	.	.	.
1958	.	.	.	.	.	.
1959	.	.	.	.	.	.
1960	.	.	.	.	.	.
1961	.	.	.	.	.	.
1962	.	.	.	.	.	.
1963	.	.	.	.	.	.
1964	.	.	.	.	.	.
1965	17	44	6	50	2.94	.
1966	100	32	2	34	0.34	96
1967	.	.	.	.	.	100
1968	166	22	0	22	0.13	0
1969	16	12	0	12	0.75	100
1970	.	.	.	.	.	100
1971	290	25	9	34	0.12	.
1972	270	28	0	28	0.10	100
1973	410	94	4	98	0.24	88
1974	659	51	0	51	0.08	100
1975	527	87	0	87	0.17	100
1976	514	80	0	80	0.16	100
1977	530	81	0	81	0.15	100
1978	269	44	0	44	0.16	100
1979	331	100	0	100	0.30	100
1980	316	120	0	120	0.38	100
1981	384	77	0	77	0.20	100
1982	538	85	9	94	0.17	90
1983	414	41	5	46	0.11	94
1984	357	79	0	79	0.22	100
1985	611	103	*	103	0.17	100
1986	696	138	*	138	0.20	100
1987	268	43	*	43	0.16	100
1988	474	79	*	79	0.17	100
MEANS, 95% CONFIDENCE LIMITS, N'S:						
$\bar{X}$ 83-87	469.2	80.8	2.5	81.8	0.17	98.89
$\bar{X}\pm$95%cl	±221.8	±51.1	±31.8	±49.7	±0.05	±3.13
N	5	5	2	5	5	5
$\bar{X}$ 74-87	458.1	80.6	1.3	81.6	0.18	98.83
$\bar{X}\pm$95%cl	±82.5	±16.8	±2.0	±16.6	±0.04	±1.81
N	14	14	11	14	14	14

PERCENT GRILSE IS CALCULATED BY SMOLT CLASS;
IN THE ABOVE TABLE A PERIOD INDICATES NO DATA FOR THAT YEAR;
* NOT ALLOWED TO RETAIN LARGE SALMON IN INSULAR NEWFOUNDLAND.

Appendix 21. Summary of recreational Atlantic salmon catch and effort data for Salmon Fishing Area 9, 1953-88.

SALMON FISHING AREA :09

YEAR	EFFORT ROD DAYS	GRILSE <63 CM	SALMON ≥63 CM	TOTAL CATCH	CPUE	PERCENT GRILSE
1953	3012	1954	44	1998	0.66	.
1954	1712	617	32	649	0.38	98
1955	1701	673	36	709	0.42	94
1956	2411	1319	22	1341	0.56	97
1957	2602	1355	48	1403	0.54	96
1958	3094	1350	51	1401	0.45	96
1959	3557	1447	52	1499	0.42	96
1960	4223	937	46	983	0.23	97
1961	2681	705	17	722	0.27	98
1962	3685	1002	38	1040	0.28	95
1963	4311	1620	48	1668	0.39	95
1964	6044	1295	23	1318	0.22	99
1965	5214	1852	76	1928	0.37	94
1966	3416	822	13	835	0.24	99
1967	7421	900	17	917	0.12	98
1968	5264	1105	1	1106	0.21	100
1969	6976	1422	9	1431	0.21	99
1970	7701	1893	12	1905	0.25	99
1971	6704	1620	19	1639	0.24	99
1972	5633	1139	8	1147	0.20	100
1973	7660	2160	20	2180	0.28	98
1974	9162	1494	9	1503	0.16	100
1975	10046	1872	6	1878	0.19	100
1976	8809	1623	12	1635	0.19	99
1977	8766	1080	9	1089	0.12	99
1978	7224	1303	17	1320	0.18	98
1979	5859	1704	15	1719	0.29	99
1980	6446	2379	61	2440	0.38	97
1981	6343	1862	52	1914	0.30	98
1982	8574	1825	33	1858	0.22	98
1983	10754	2303	71	2374	0.22	96
1984	8754	2264	5	2269	0.26	100
1985	9385	1750	*	1750	0.19	100
1986	8807	2298	*	2298	0.26	100
1987	5994	867	*	867	0.14	100
1988	7157	1373	*	1373	0.19	100
MEANS, 95% CONFIDENCE LIMITS, N'S:						
83-87	8738.8	1896.4	38.0	1911.6	0.22	99.28
$\bar{X}\pm$95%cl	±2152.2	±771.1	±419.3	±787.3	±0.05	±1.90
N	5	5	2	5	5	5
74-87	8208.8	1758.9	26.4	1779.6	0.22	98.89
$\bar{X}\pm$95%cl	±900.1	±268.4	±16.2	±275.3	±0.04	±0.75
N	14	14	11	14	14	14

PERCENT GRILSE IS CALCULATED BY SMOLT CLASS;
IN THE ABOVE TABLE A PERIOD INDICATES NO DATA FOR THAT YEAR;
* NOT ALLOWED TO RETAIN LARGE SALMON IN INSULAR NEWFOUNDLAND.

Appendix 2m. Summary of recreational Atlantic salmon catch and effort data for Salmon Fishing Area 10, 1953-88.

SALMON FISHING AREA :10

YEAR	EFFORT ROD DAYS	GRILSE <63 CM	SALMON ≥63 CM	TOTAL CATCH	CPUE	PERCENT GRILSE
1953	2216	712	44	756	0.34	.
1954	1486	356	37	393	0.26	95
1955	1584	306	29	335	0.21	92
1956	2814	425	14	439	0.16	96
1957	2064	484	30	514	0.25	93
1958	3046	1043	65	1108	0.36	88
1959	2525	657	33	690	0.27	97
1960	2197	511	23	534	0.24	97
1961	1507	236	2	238	0.16	100
1962	3658	679	68	747	0.20	78
1963	3785	1058	38	1096	0.29	95
1964	3507	1408	18	1426	0.41	98
1965	4591	875	43	918	0.20	97
1966	4334	820	22	842	0.19	98
1967	4942	333	4	337	0.07	100
1968	6641	1387	6	1393	0.21	98
1969	3800	979	29	1008	0.27	98
1970	3899	601	7	608	0.16	99
1971	4796	928	17	945	0.20	97
1972	5841	567	4	571	0.10	100
1973	8714	1785	42	1827	0.21	93
1974	10987	1212	14	1226	0.11	99
1975	5999	427	9	436	0.07	99
1976	8811	730	10	740	0.08	98
1977	7213	1097	5	1102	0.15	99
1978	8764	1595	42	1637	0.19	96
1979	6405	849	8	857	0.13	100
1980	9588	1524	27	1551	0.16	97
1981	9309	1317	29	1346	0.14	98
1982	9331	1256	10	1266	0.14	99
1983	9173	1140	79	1219	0.13	94
1984	6361	1457	2	1459	0.23	100
1985	6887	1326	*	1326	0.19	100
1986	6387	1535	*	1535	0.24	100
1987	3348	429	*	429	0.13	100
1988	5198	1142	*	1142	0.22	100
MEANS, 95% CONFIDENCE LIMITS, N'S:						
$\bar{X}$ 83-87	6431.2	1177.4	40.5	1193.6	0.19	98.81
$\bar{X}\pm$95%cl	±2577.6	±551.7	±489.2	±551.7	±0.07	±3.23
N	5	5	2	5	5	5
$\bar{X}$ 74-87	7754.5	1135.3	21.4	1152.1	0.15	98.66
$\bar{X}\pm$95%cl	±1155.2	±224.4	±15.2	±227.6	±0.03	±1.03
N	14	14	11	14	14	14

PERCENT GRILSE IS CALCULATED BY SMOLT CLASS;
IN THE ABOVE TABLE A PERIOD INDICATES NO DATA FOR THAT YEAR;
* NOT ALLOWED TO RETAIN LARGE SALMON IN INSULAR NEWFOUNDLAND.

Appendix 2n. Summary of recreational Atlantic salmon catch and effort data for Salmon Fishing Area 11, 1953-88.

SALMON FISHING AREA :11

YEAR	EFFORT ROD DAYS	GRILSE <63 CM	SALMON ≥63 CM	TOTAL CATCH	CPUE	PERCENT GRILSE
1953	1004	545	73	618	0.62	.
1954	440	345	33	378	0.86	94
1955	338	440	45	485	1.43	88
1956	690	758	50	808	1.17	90
1957	801	685	40	725	0.91	95
1958	1133	880	83	963	0.85	89
1959	1353	961	65	1026	0.76	93
1960	759	974	41	1015	1.34	96
1961	1354	924	82	1006	0.74	92
1962	2056	2005	61	2066	1.00	94
1963	1834	1869	71	1940	1.06	97
1964	2559	2600	62	2662	1.04	97
1965	2759	2161	64	2225	0.81	98
1966	2813	2446	97	2543	0.90	96
1967	3833	1800	67	1867	0.49	97
1968	5127	4172	92	4264	0.83	95
1969	5728	6055	65	6120	1.07	98
1970	5425	5028	74	5102	0.94	99
1971	6105	4060	65	4125	0.68	99
1972	5535	4905	86	4991	0.90	98
1973	6441	4856	35	4891	0.76	99
1974	9119	4476	38	4514	0.50	99
1975	8473	4501	40	4541	0.54	99
1976	8681	4164	42	4206	0.48	99
1977	7966	4096	18	4114	0.52	100
1978	8050	3996	18	4014	0.50	100
1979	6570	3430	7	3437	0.52	100
1980	10010	5069	44	5113	0.51	99
1981	12836	7062	41	7103	0.55	99
1982	15334	7338	53	7391	0.48	99
1983	15419	4769	27	4796	0.31	100
1984	15385	7019	15	7034	0.46	100
1985	13712	5823	*	5823	0.42	100
1986	15233	5546	*	5546	0.36	100
1987	11309	3829	*	3829	0.34	100
1988	14811	5033	*	5033	0.34	100
MEANS, 95% CONFIDENCE LIMITS, N'S:						
$\bar{X}$ 83-87	14211.6	5397.2	21.0	5405.6	0.38	99.86
$\bar{X}\pm$95%cl	±2199.6	±1480.6	±76.2	±1482.6	±0.08	±0.24
N	5	5	2	5	5	5
$\bar{X}$ 74-87	11292.6	5079.9	31.2	5104.4	0.45	99.53
$\bar{X}\pm$95%cl	±1887.3	±744.6	±9.9	±747.7	±0.05	±0.22
N	14	14	11	14	14	14

PERCENT GRILSE IS CALCULATED BY SMOLT CLASS;
IN THE ABOVE TABLE A PERIOD INDICATES NO DATA FOR THAT YEAR;
* NOT ALLOWED TO RETAIN LARGE SALMON IN INSULAR NEWFOUNDLAND.