Age and Growth of Salmonids in the Experimental Ponds Area, Central Newfoundland, 1977-80

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Canadian Data Report of

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December 1981

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AGE AND GROWTH OF SALMONIDS IN THE EXPERIMENTAL PONDS AREA, CENTRAL NEWFOUNDLAND, 1977-80

by

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ABSTRACT

Ryan, P. M., L. J. Cole, D. P. Riche, and D. Wakeham. 1981. Age and growth of salmonids in the Experimental Ponds Area, central Newfoundland, 1977-80. Can. Data Rep. Fish. Aquat. Sci. 304: iv + 284 p.

Age and growth data of Atlantic salmon (Salmo salar) and brook trout (Salvelinus fontinalis) from the Experimental Ponds Area, Newfoundland, 1977-80, were presented with some analyses. The Experimental Ponds Area is three small lakes and four tributary streams at the headwaters of the Northwest Gander River. Data included were empirical and averaged lengths, weights, ages, and scale measurements, length-scale relationships, back-calculated lengths at age of the year-classes, length-weight relationships, and length-frequency distributions of the age groups. The development of species-specific length-scale relationships of salmonids in the Experimental Ponds Area was described. Year-to-year variation in growth within and between ponds was compared.

Key words: Atlantic salmon, brook trout, Experimental Ponds Area, age and growth.

RÉSUMÉ

Ryan, P. M., L. J. Cole, D. P. Riche, and D. Wakeham. 1981. Age and growth of salmonids in the Experimental Ponds Area, central Newfoundland, 1977-80. Can. Data Rep. Fish. Aquat. Sci. 304: iv + 284 p.

Les données sur l'âge et la croissance du saumon de l'Atlantique (Salmo salar) et de l'omble de fontaine (Salvelinus fontinalis) du secteur expérimental de Terre-Neuve, recueillies de 1977 à 1980, sont présentées avec certaines analyses. Le secteur expérimental se compose de trois petits lacs et de quatre cours d'eau tributaires aux branches de tête de la rivière Gander nord-ouest. Les données comprennent les longueurs, les poids, les âges empiriques et moyens, ainsi que les mesures des écailles, les rapports longueur-écailles, les longueurs calculées à posteriori aux différentes classes d'âges, les rapports longueur-poids et les distributions longueur-fréquence des groupes d'âge. L'évolution des rapports longueur-écailles pour chaque espèce de salmonidés dans le secteur expérimental est décrite. On compare la variation d'une année à l'autre de la croissance au sein du même étang et d'un étang à l'autre.

INTRODUCTION

This report is a documentation of the existing data base for continuing studies of salmonid age and growth in the Experimental Ponds Area, central Newfoundland.

The Experimental Ponds Area consists of three small lakes and four tributary streams at the headwaters of the Northwest Gander River, Newfoundland.

Increasingly larger amounts of limnological data have been obtained from the Experimental Ponds Area since 1977 for the purpose of documenting natural variation prior to an experimental alteration of part or all of the Area. At this writing the planned experimental alteration is application of pesticide to a part of the Area in a manner comparable to that used by the Provincial Department of Forest Resources and Lands to combat infestations of the spruce budworm (*Choristoneura fumiferana*). It is hoped that "pre and post-treatment" comparisons, coupled with "treated and untreated" comparisons, will indicate any long-term effects of currently applied forest pesticides on Newfoundland's freshwater ecosystems.

The three lakes in the Experimental Ponds Area are, from south to north and upstream to downstream, Headwater Pond (48°16'51"N, 55°29'39"W), Spruce Pond (48°19'40"N, 55°28'24"W), and Little Gull Lake (48°21'50"N, 55°29'38"W). Headwater Pond and Spruce Pond are the most intensively studied of the three. Data from Little Gull Lake have been incidentally collected as time permitted. Headwater Pond has an area of 76.1 ha, a mean depth of 1.1 m, one inlet stream, and one outlet flowing into Spruce Pond, 3.5 km to the north. Spruce Pond, the portion intended for experimental treatment, has an area of 36.5 ha and a mean depth of 1.0 m. Apart from its major inlet from Headwater Pond, it has a minor inlet and an outlet flowing into Little Gull Lake, 3.3 km to the north. Little Gull Lake, with an area of 306.5 ha and a mean depth of 1.7 m, has five inlets and drains into Little Gull River and on downstream to the Northwest Gander River, Gander Lake, Gander River and into the Atlantic Ocean.

The Experimental Ponds Area is accessible to sea-run fish. Fish species captured in the Experimental Ponds Area are Atlantic salmon (*Salmo salar*), brook trout (*Salvelinus fontinalis*), threespine stickleback (*Gasterosteus aculeatus*), and American eel (*Anguilla rostrata*). Further description of the Experimental Ponds Area will be included in future reports documenting physical and chemical limnology, phyto and zooplankton dynamics, macrozoobenthos dynamics, and other aspects of fish population dynamics.

In this report, emphasis is placed on the development and documentation of comparative age and growth data of Atlantic salmon and brook trout in the Experimental Ponds Area. Although some analyses are included, the report is intended primarily as a medium for filing and archiving data for more detailed analyses in future reports.

MATERIALS AND METHODS

Salmonid age and growth data were obtained from Spruce Pond from 1977 to 1980, from Headwater Pond from 1978 to 1980, and from Little Gull Lake in 1979. Fish were captured with gillnets, fyke nets, trap nets, electroshockers, rod and reel, stream counting fences, dipnets and seine nets.

The principal method of capture of fish used for age determination over the period 1978-80 was fyke netting during the course of population estimates each spring and fall. A subsample, stratified by length[1], of the total catch of each species was processed for age and growth data. Stretched mesh size of fyke nets was 19 mm in all cases except for one net in each of Spruce and Headwater Ponds in 1979 and 1980 which had 13 mm mesh.

The majority of age and growth data from Spruce Pond in 1977 were obtained by 38 and 50 mm stretched mesh gillnets set in July. Age and growth data from Headwater Pond in 1978 were obtained in August and September by shallow-water trap nets made of fly mesh (Beamish 1972), 19 mm mesh fyke nets, and 38 mm mesh gillnets. Salmon and trout were obtained from Little Gull Lake in August 1979 with 19 mm mesh fyke nets and beach seines. Angled fish, principally obtained during creel censuses of 1979 and 1980, subsamples of fish captured in counting fences adjacent to the ponds, and electroshocked fish obtained during stream surveys were also processed for age and growth data.

Fish were processed for age and growth data immediately after capture and, in most cases, released. A minority were processed after freezer storage and thawing. They were measured for fork length to the nearest millimeter, in most cases weighed to the nearest gram, and scales were scraped from the area above the lateral line just posterior to the dorsal fin. Scales were stored in envelopes used for data recording. Sex and maturity were determined by macroscopic examination of the gonads of killed fish. Occasionally, sex and maturity were categorized by external examination of color and extruded reproductive products. A mature fish was defined as one that was going to spawn in the year of capture or that had previously spawned.

In the laboratory, scales were examined with a Bausch and Lomb microprojector at a magnification of 46 diameters. If scales regular in shape and appearance were available, an age was assigned to each fish equal to the number of completed annuli as described by Tesch (1971). A scale from each aged fish was measured from the focus to the scale margin and to each annulus at the anteriormost edge.

The data from each fish were punched on a general purpose, 80 column computer card for processing in the manner detailed by Nickerson et al. (1980).

A total of 1273 salmon, two of which were sea-run, from Spruce Pond, Headwater Pond, and Little Gull Lake and 1562 trout from Spruce and Headwater ponds were included in the age and growth calculations in this report. Three trout captured in Little Gull Lake in 1979 and additional fish, lacking suitable scales or whose weights were not obtained, were listed in the Appendices but were not processed further.

A length-scale relationship for each of the salmonid species in the Experimental Ponds Area was derived as suggested by Carlander (1981) and tested for suitability in the following manner.

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[1]Near the beginning of a given population estimate, fish were selected, approximately at random, from the catch. As the estimate progressed, captured fish in those length intervals (cm) including few or no fish were more intensively sampled so that data from fish in each length interval would be available.

With the exception of the two sea-run salmon, data from each species were grouped, overall length-scale relationships were obtained and used to generate calculated lengths at age of each species in each water body. These lengths were compared to calculated lengths at age obtained by the use of length-scale relationships generated only from the data of each water body. For future comparisons, those data used for the construction of age-length relationships (calculated lengths at age separated by year-class and year of capture) were generated using both the applicable overall relationship and the relationship derived from a given pond in a given year.

Upon acceptance of the suitability of species-specific length-scale relationships from the Experimental Ponds Area (see Results), calculated lengths at age were generated for the following data combinations using the appropriate species-specific length-scale relationship.

Calculated lengths at age, exclusive of those for sea-run fish, were generated, with separations made by year-class and year of capture, using only fyke and trapnetted fish to avoid bias resulting from gear selection for specific lengths. Calculated lengths at age of the year-classes were then obtained using the data from all years and giving equal weight to the calculated lengths at age of each fish. This procedure generated length at age data for salmon year-classes 1972-79 and trout year-classes 1973-79 and permitted comparisons of growth of the individual year-classes to be made within and between ponds.

Overall growth and its variation in each pond was described by combining data from 1977 to 1980 obtained from fyke and trapnetted fish. Equal weight was given to the calculated lengths at age of each fish.

Calculated lengths at age of the two sea-run salmon were generated separately using the overall length-scale relationship of salmon. It was recognized that extrapolation was extensive for these calculations.

For future computations of population age structure and biomass, fish obtained for age determination each spring and fall during population estimates and those from Spruce Pond in 1977 and Headwater Pond in 1978 were processed with separations made according to year and season of capture. This also provided comparable length-weight relationships and a check on possible aging and transcription errors.

RESULTS

SPECIES-SPECIFIC LENGTH-SCALE RELATIONSHIPS

Raw data used in all computations are shown in Appendix 1 (salmon) and Appendix 2 (trout).

Calculated lengths at age of salmon from each water body obtained through the use of the overall length-scale relationship were only slightly different from those calculated lengths at age derived through the use of the relationship from each respective water body (Table 1, Appendix 3). Differences in the calculated lengths at age were all less than 5 mm and reached a maximum in the few data from Little Gull Lake. Differences in the calculated lengths obtained from Spruce and Headwater ponds were a maximum of 2.9 mm.

Table 1. Comparisons of calculated lengths at age of Atlantic salmon derived from the use of length-scale relationships from each pond to those calculated lengths at age derived from the use of the overall length-scale relationship from the combined data.

Collection	Derivation of length-scale relationship	Length-scale relationship				Calculated length (mm) at age						
		No. of fish	Intercept	Slope	Correlation coefficient	1	2	3	4	5	6	7
Spruce Pond 1977-80	Spruce Pond 1977-80	754	2.7366	0.640	0.9026	56.7	90.8	128.3	166.1	194.7	220.1	215.0
	Three Areas 1977-80	1271	2.7593	0.630	0.8902	57.3	91.3	128.6	166.4	194.9	220.3	215.0
Headwater Pond 1978-80	Headwater Pond 1978-80	445	2.8727	0.596	0.8327	64.0	102.8	141.1	175.3	205.2	240.6	
	Three Areas 1977-80	1271	2.7593	0.630	0.8902	61.1	100.4	139.6	174.4	204.5	240.1	
Little Gull Lake 1979	Little Gull Lake 1979	72	2.5265	0.672	0.9284	52.3	81.9	117.3	150.8	198.5	225.8	
	Three Areas 1977-80	1271	2.7593	0.630	0.8902	57.1	85.7	120.1	153.5	200.8	227.0	

Similar comparisons with brook trout also indicated slight differences with a maximum of 2.6 mm (Table 2, Appendix 4).

Such differences were considered inconsequential in comparison to measurement error and to those errors arising from the use of length-scale relationships based on small sample sizes distributed over a small range of the variates. Accordingly, the overall species-specific, length-scale relationships were employed for further calculations. Discussion of this matter can be found in Carlander (1981). Additional data, to be used in future comparisons of these differences, are listed in Appendices 5, 6, 7, 11 and 12.

SALMON GROWTH IN LENGTH

Mean calculated lengths at age of the year-classes of salmon from Spruce Pond varied slightly with year of capture (Table 3, Appendix 5). Combinations of these data by year-class (Table 4) were indicative of a variation in year-class growth.

The growth increments of the year-classes of salmon from Spruce Pond (Table 5) indicated a gradual decrease in first year growth from 1972 to 1976 followed by an increase from 1977 to 1979. Summations of first and second year growth increments, primarily experienced in the stream environment, were also indicative of a salmon growth rate decrease to 1976 followed by an increase. Summations of third and fourth year increments indicated 1977 as the poorest year for growth followed by 1976. Summations of increments from the first four years of life indicated that, over the period 1975-79, 1976 was the poorest year for salmon growth and was followed by increasing growth rates in later years.

Mean calculated lengths at age of the year-classes of salmon from Headwater Pond varied slightly with year of capture with the calculated lengths at age of a given year-class being consistently greater with later date of capture (Table 6, Appendix 6). Most sample sizes were small. Combinations of these data by year-class (Table 7) were indicative of a variation in year-class growth.

The growth increments of the year-classes of salmon from Headwater Pond (Table 8) indicated, with one exception, slowest first year growth and the smallest sum of first and second year growth in 1978. The first year growth of the 1973 year-class was calculated from only two fish. Summed third and fourth year increments were least in 1977 as they were in Spruce Pond. Summations of increments over the first four years of life indicated that over the period 1975-79, slowest salmon growth occurred in 1978 with a decrease to that period and an increase afterwards.

Calculated lengths at age of the year-classes of salmon from Headwater Pond were greater than those from Spruce Pond (Fig. 1) for each year-class except 1978 when the pattern reversed.

Calculated lengths at age of the year-classes of salmon from Little Gull Lake, based on small sample sizes, were similar to those from Spruce and Headwater ponds (Table 9, Appendix 7).

Table 2. Comparisons of calculated lengths at age of brook trout derived from the use of length-scale relationships from each pond to those calculated lengths at age derived from the use of the overall length-scale relationship from the combined data.

Collection	Derivation of length-scale relationship	Length-scale relationship				Calculated length (mm) at age					
		No. of fish	Intercept	Slope	Correlation coefficient	1	2	3	4	5	6
Spruce Pond 1977-80	Spruce Pond 1977-80	817	2.7002	0.831	0.8949	68.4	123.9	175.2	219.5	283.7	
	Spruce and Headwater Ponds 1977-80	1562	2.5948	0.866	0.8860	65.8	121.8	173.8	218.4	282.9	
Headwater Pond 1978-80	Headwater Pond 1978-80	745	2.4955	0.898	0.8803	61.0	117.5	174.0	221.5	272.7	304.4
	Spruce and Headwater Ponds 1977-80	1562	2.5948	0.866	0.8860	63.4	119.6	175.6	222.8	273.8	305.1

Table 3 . Calculated lengths at age by year-class and year of capture of Atlantic salmon from Spruce Pond. Calculations are based on fyke netted fish only.

Year Class	Year of Capture	No. of Fish	Mean calculated length (mm) at age 1	2	3	4	5	6	7
1972	77	1	109.8	151.3	184.5	229.6	251.9		
	78	1	44.4	64.9	101.3	134.6	166.5	185.2	
	79	1	59.2	80.5	112.5	156.5	169.6	194.3	215.0
1973	77	7	67.3	100.3	137.1	168.2			
	78	30	55.0	88.5	123.5	154.7	183.9		
	79	8	59.7	92.3	127.2	166.4	192.6	217.1	
1974	77	13	70.1	107.9	147.1				
	78	75	54.0	89.1	128.2	165.8			
	79	25	61.4	92.8	123.8	161.9	189.7		
	80	2	62.0	103.7	148.1	176.7	204.8	235.7	
1975	77	10	63.3	93.9					
	78	70	50.4	83.2	112.2				
	79	53	61.1	92.4	128.5	165.0			
	80	14	59.5	99.8	142.2	186.1	217.6		
1976	77	4	51.9						
	78	86	51.6	84.3					
	79	76	59.8	95.4	128.7				
	80	63	56.0	92.3	132.1	171.0			
1977	78	8	56.9						
	79	37	57.3	86.7					
	80	55	57.8	93.4	133.4				
1978	79	4	60.4						
	80	43	59.6	96.2					
1979	80	6	60.4						
Weighted mean			56.8	90.8	127.7	166.6	193.2	215.6	215.0
Standard deviation			10.0	14.4	20.6	22.0	27.3	23.5	0.0
Number of fish		692	692	670	494	280	82	12	1

Table 4 . Calculated lengths at age of the year-classes of Atlantic salmon in Spruce Pond. Calculations are based on fyke netted fish only. The number of examined fish of each year-class in each age group is bracketed.

Year-Class	Year of Capture	No. of Fish	Mean calculated length (mm) at age 1	2	3	4	5	6	7
1972	77-79	3	71.1 (3)	98.9 (3)	132.8 (3)	173.6 (3)	196.0 (3)	189.8 (2)	215.0 (1)
1973	77-79	45	57.8 (45)	91.0 (45)	126.3 (45)	158.9 (45)	185.7 (38)	217.1 (8)	
1974	77-80	115	57.6 (115)	92.3 (115)	129.7 (115)	165.1 (102)	190.8 (27)	235.7 (2)	
1975	77-80	147	56.0 (147)	88.8 (147)	121.6 (137)	169.4 (67)	217.6 (14)		
1976	77-80	229	55.5 (229)	90.3 (225)	130.2 (139)	171.0 (63)			
1977	78-80	100	57.5 (100)	90.7 (92)	133.4 (55)				
1978	79-80	47	59.7 (47)	96.2 (43)					
1979	80	6	60.4 (6)						
Weighted mean			56.8	90.8	127.7	166.6	193.2	215.6	215.0
Standard deviation			10.0	14.4	20.6	22.0	27.3	23.5	0.0
Number of fish		692	692	670	494	280	82	12	1

Table 5 . Calculated growth increments of the year-classes of Atlantic salmon in Spruce Pond. Calculations are based on fyke netted fish only.

Year-Class	Year of Capture	Mean calculated growth increment (MM) in 1972	1973	1974	1975	1976	1977	1978	1979
1972	77-79	71.1	27.8	33.9	40.8	22.2	-6.2	25.2	
1973	77-79		57.8	33.2	35.3	32.6	26.8	31.4	
1974	77-80			57.6	34.7	37.4	35.4	25.7	44.9
1975	77-80				56.0	32.8	32.8	47.8	48.2
1976	77-80					55.5	34.8	39.9	40.8
1977	78-80						57.5	33.2	42.7
1978	79-80							59.7	36.5
1979	80								60.4
Sum 1st and 2nd year			85.6	90.8	90.7	88.3	92.3	92.9	96.9
Sum 3rd and 4th year					76.1	70.0	68.2	87.7	83.5
Sum 1st to 4th year					166.8	158.3	160.5	180.6	180.4

Table 6 . Calculated lengths at age by year-class and year of capture of Atlantic salmon from Headwater Pond. Calculations are based on trap and fyke netted fish in 1978 and fyke netted fish in 1979 and 1980.

Year-Class	Year of Capture	No. of Fish	Mean calculated length (mm) at age 1	2	3	4	5	6
1972	78	2	67.3	105.1	131.7	163.4	188.8	205.3
1973	78	1	48.1	77.9	98.6	131.0	154.2	
	79	1	59.6	102.3	162.0	200.7	226.8	244.7
1974	79	12	62.5	104.5	136.6	169.5	196.6	
	80	2	71.2	113.3	177.6	211.2	246.6	293.5
1975	78	5	55.5	88.9	113.3			
	79	60	60.7	101.0	137.4	167.5		
	80	17	63.2	105.8	148.9	189.8	222.0	
1976	78	15	58.1	94.9				
	79	138	62.1	103.9	142.2			
	80	62	62.3	104.5	144.8	183.4		
1977	78	2	58.9					
	79	23	61.0	94.7				
	80	41	63.4	99.9	140.8			
1978	80	14	55.3	91.0				
1979	80	2	69.1					
Weighted mean			61.6	101.7	141.5	176.9	211.0	248.4
Standard deviation			9.3	14.2	21.1	26.0	27.6	50.0
Number of fish		397	397	393	341	157	35	5

Table 7 . Calculated lengths at age of the year-classes of Atlantic salmon in Headwater Pond. Calculations are based on trap and fyke netted fish in 1978 and fyke netted fish in 1979 and 1980. The number of examined fish of each year-class in each age group is bracketed.

Year-Class	Year of Capture	No. of Fish	Mean calculated length (mm) at age 1	2	3	4	5	6
1972	78	2	67.3 (2)	105.1 (2)	131.7 (2)	163.4 (2)	188.8 (2)	205.3 (2)
1973	78-79	2	53.9 (2)	90.1 (2)	130.3 (2)	165.9 (2)	190.5 (2)	244.7 (1)
1974	79-80	14	63.7 (14)	105.8 (14)	142.5 (14)	175.5 (14)	203.7 (14)	293.5 (2)
1975	78-80	82	60.9 (82)	101.3 (82)	138.3 (82)	172.4 (77)	222.0 (17)	
1976	78-80	215	61.9 (215)	103.5 (215)	143.0 (200)	183.4 (62)		
1977	78-80	66	62.4 (66)	98.0 (64)	140.8 (41)			
1978	80	14	55.3 (14)	91.0 (14)				
1979	80	2	69.1 (2)					
Weighted mean			61.6	101.7	141.5	176.9	211.0	248.4
Standard deviation			9.3	14.2	21.1	26.0	27.6	50.0
Number of fish		397	397	393	341	157	35	5

Table 8 . Calculated growth increments of the year-classes of Atlantic salmon in Headwater Pond. Calculations are based on trap and fyke netted fish in 1978 and fyke netted fish in 1979 and 1980.

Year-Class	Year of Capture	Mean calculated growth increment (MM) in 1972	1973	1974	1975	1976	1977	1978	1979
1972	78	67.3	37.8	26.6	31.7	25.4	16.5		
1973	78-79		53.9	36.2	40.2	35.6	24.6	54.2	
1974	79-80			63.7	42.1	36.7	33.0	28.2	89.8
1975	78-80				60.9	40.4	37.0	34.1	49.6
1976	78-80					61.9	41.6	39.5	40.4
1977	78-80						62.4	35.6	42.8
1978	80							55.3	35.7
1979	80								69.1
Sum 1st and 2nd year			91.7	99.9	103.0	102.3	104.0	90.9	104.8
Sum 3rd and 4th year					71.9	72.3	70.0	73.6	83.2
Sum 1st to 4th year					174.9	174.6	174.0	164.5	188.0

Fig. 1. Growth of the year-classes of Atlantic salmon in Spruce Pond (solid lines) and Headwater Pond (dashed lines). Only mean calculated lengths from five or more individuals are included.

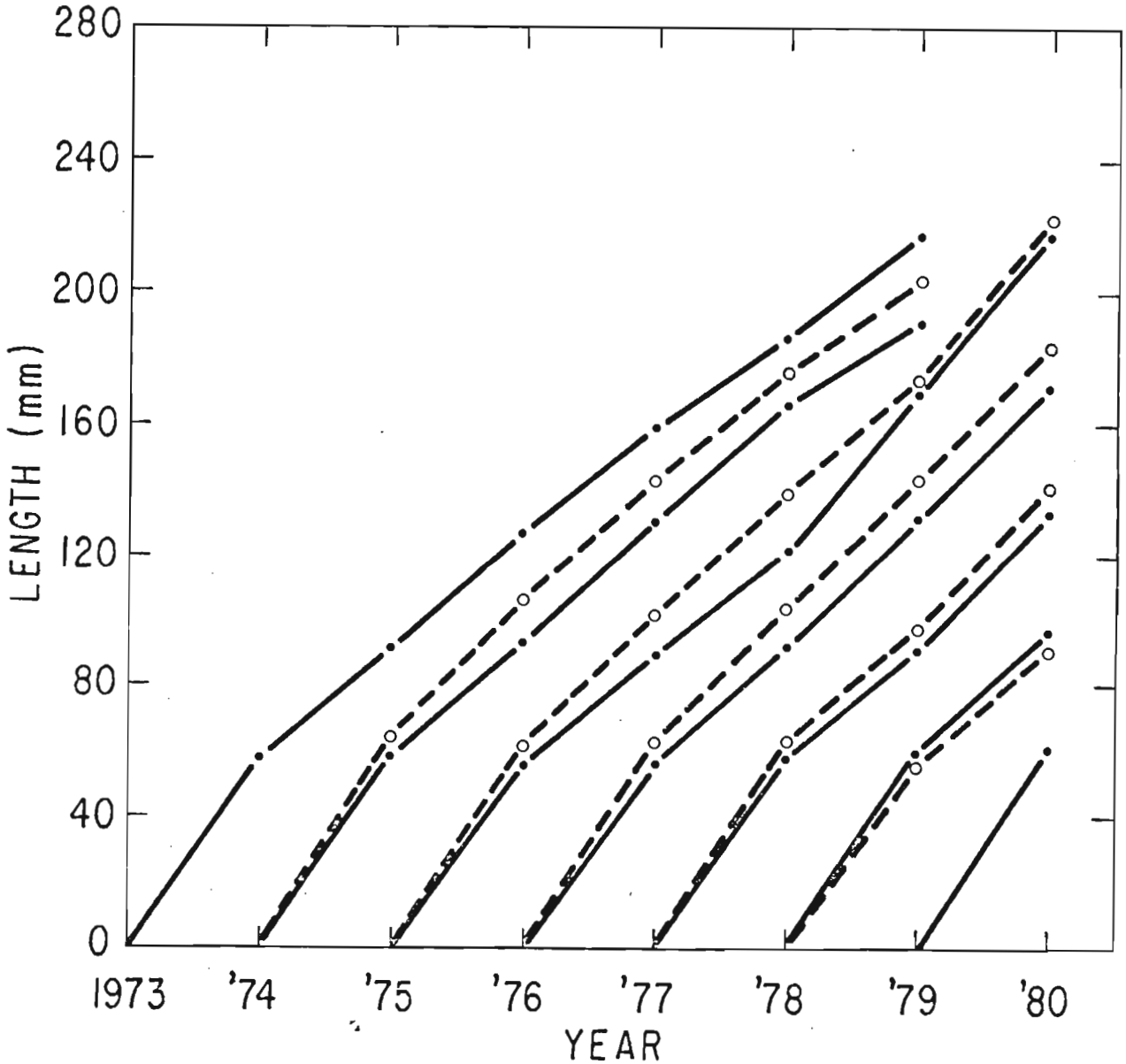


Table 9. Calculated lengths at age of the year-classes of Atlantic salmon in Little Gull Lake. Calculations are based on fyke netted fish in 1979.

Year-Class	No. of Fish	Mean calculated length (mm) at age 1	2	3	4	5	6
1973	3	68.9	96.8	140.3	173.8	202.1	227.0
1974	3	68.9	93.1	130.1	174.5	199.6	
1975	10	57.1	92.3	121.5	142.3		
1976	26	59.7	90.4	120.3			
1977	13	55.1	79.0				
Weighted mean		59.2	88.6	122.7	154.3	200.8	227.0
Standard deviation		9.7	13.6	16.9	22.1	24.6	14.3
No. of fish	55	55	55	42	16	6	3

Aged salmon from Spruce Pond in the summer of 1977 (gill and fyke netted fish) and in each spring and fall of 1978-80 (fyke netted fish only) provided data for future computation of population age structure and comparable data for length-weight relationships (Appendix 8). These and similar data from Headwater Pond in August and September of 1978 (trap and fyke netted fish) and each spring and fall of 1979-80 (fyke netted fish only) (Appendix 9) also provided evidence that the assigned ages were, for the most part, the correct ages. For example, fish of an assigned age captured during spring population estimates tended to be smaller than fish of the same age captured during the fall population estimates. Similarly, mean lengths of fish of an assigned age tended to coincide, in the younger age groups, with modes in the length-frequency distribution.

SALMON GROWTH IN WEIGHT

Length-weight regressions of salmon from the Experimental Ponds Area obtained with comparable gear at comparable calendar dates varied (Table 10, Appendices 8 and 9). Headwater Pond salmon had slightly higher length-weight exponents in the spring but slightly lower exponents in the fall than did their Spruce Pond counterparts. There were no consistent differences between spring and fall relationships within the same water body.

SEA-RUN SALMON

Two sea-run salmon were captured in the Experimental Ponds Area from 1977 to 1980. A 572 mm male fish was taken by fyke net in Spruce Pond in September of 1977 and a 533 mm unsexed fish was fyke netted in Little Gull Lake in August of 1979. Both were one sea-winter fish. Back-calculation by means of the overall salmon length-scale relationship indicated that these two fish were rapid growing in comparison to the majority of individuals from the Experimental Ponds Area (Appendix 10).

TROUT GROWTH IN LENGTH

Mean calculated lengths at age of the year-classes of trout from Spruce Pond varied slightly with year of capture (Table 11, Appendix 11). Combination of these data by year-class (Table 12) indicated variation in year-class growth. The growth increments of the year-classes of trout from Spruce Pond (Table 13) indicated greatest first year growth in 1976 with a decrease prior to and after that time. Summed first and second year growth was best in 1977 and least in 1975. Summed third and fourth year growth was best in 1978 and least in 1979. Overall, first to fourth year growth from 1976 to 1979 was best in 1977 followed by a decrease after that time.

Mean calculated lengths at age of the year-classes of trout from Headwater Pond varied slightly from year to year (Table 14, Appendix 12). Year-classes varied in growth rate (Table 15). First year growth increments of trout from Headwater Pond were greatest in 1976 and decreased afterwards, as did those in Spruce Pond (Table 16). Summed first and second year growth reached a peak in 1976 and decreased afterwards. Summed third and fourth year growth was greatest in 1977 and least in 1978. Overall, growth from 1976 to 1979 was best in 1977 followed by a decrease afterwards as was the case with Spruce Pond trout.

Table 10. Length-weight relationships of Atlantic salmon from the Experimental Ponds Area, Nfld. All fish were obtained by fyke net during the spring and fall populations estimates. Relationships are least-squares regressions of log weight (g) on log length (mm).

	Spring					Fall				
Location	Dates of capture	Intercept	Slope	No. fish	Correlation coefficient	Dates of capture	Intercept	Slope	No. fish	Correlation coefficient
Spruce Pond	18/05/78-26/05/78	-3.56	2.36	125	0.989	14/09/78-06/10/78	-4.53	2.81	145	0.977
	18/05/79-25/05/79	-4.30	2.70	136	0.950	12/09/79-28/09/79	-4.21	2.66	68	0.980
	19/05/80-06/06/80	-4.02	2.56	102	0.988	10/09/80-24/09/80	-4.29	2.70	81	0.989
Headwater Pond	18/05/79-30/05/79	-4.38	2.73	155	0.956	12/09/79-02/10/79	-4.16	2.65	79	0.969
	18/05/80-06/06/80	-4.25	2.67	84	0.990	10/09/80-24/09/80	-4.20	2.67	54	0.981

Table 11 . Calculated lengths at age by year-class and year of capture of brook trout from Spruce Pond. Calculations are based on fyke netted fish only.

Year-class	Year of capture	No. of fish	Mean calculated length (mm) at age 1	2	3	4	5
1973	77	1	74.3	119.5	162.3	195.5	
	78	4	64.6	122.6	173.2	213.7	264.4
1974	78	18	65.3	114.5	177.2	223.2	
1975	78	61	64.7	119.7	175.4		
	79	4	66.7	114.9	168.1	218.5	
	80	7	53.5	107.9	179.9	233.8	296.1
1976	78	95	67.4	125.4			
	79	68	72.1	132.2	181.6		
	80	20	56.4	118.8	177.9	225.1	
1977	78	50	63.4				
	79	86	71.5	120.8			
	80	78	58.3	112.8	167.6		
1978	79	53	65.0				
	80	67	57.7	117.0			
1979	80	10	59.2				
Weighted mean			64.8	120.8	174.9	223.7	284.6
Standard deviation			13.9	20.9	22.7	21.7	20.7
Number of fish		622	622	509	261	54	11

Table 12. Calculated lengths at age of the year-classes of brook trout in Spruce Pond. Calculations are based on fyke netted fish only. The number of examined fish of each year-class in each age group is bracketed.

Year-class	Year of capture	No. of fish	Mean calculated length (mm) at age 1	2	3	4	5
1973	77-78	5	66.5 (5)	122.0 (5)	171.0 (5)	210.1 (5)	264.4 (4)
1974	78	18	65.3 (18)	114.5 (18)	177.2 (18)	223.2 (18)	
1975	78-80	72	63.7 (72)	118.3 (72)	175.4 (72)	228.2 (11)	296.1 (7)
1976	78-80	183	67.9 (183)	127.2 (183)	180.8 (88)	225.1 (20)	
1977	78-80	214	64.8 (214)	117.0 (164)	167.6 (78)		
1978	79-80	120	60.9 (120)	117.0 (67)			
1979	80	10	59.2 (10)				
Weighted mean			64.8	120.8	174.9	223.7	284.6
Standard deviation			13.9	20.9	22.7	21.7	20.7
Number of fish		622	622	509	261	54	11

Table 13. Calculated growth increments of the year-classes of brook trout in Spruce Pond. Calculations are based on fyke netted fish only.

Year-Class	Year of Capture	Mean calculated growth increment (MM) in 1973	1974	1975	1976	1977	1978	1979
1973	77-78	66.5	55.5	49.0	39.1	54.3		
1974	78		65.3	49.2	62.7	46.0		
1975	78-80			63.7	54.6	57.1	52.8	67.9
1976	78-80				67.9	59.3	53.6	44.3
1977	78-80					64.8	52.2	50.6
1978	78-80						60.9	56.1
1979	80							59.2
Sum 1st and 2nd year			120.8	112.9	122.5	124.1	113.1	115.3
Sum 3rd and 4th year					101.8	103.1	106.4	94.9
Sum 1st and 4th year					224.3	227.2	219.5	210.2

Table 14. Calculated lengths at age by year-class and year of capture of brook trout from Headwater Pond. Calculations are based on trap and fyke netted fish in 1978 and fyke netted fish in 1979 and 1980.

Year-class	Year of capture	No. of fish	Mean calculated length (mm) at age 1	2	3	4	5	6
1973	78	3	64.4	130.9	167.1	217.9	271.1	
1974	78	12	72.7	127.3	183.7	240.8		
	79	2	71.3	136.6	180.6	229.5	288.2	
	80	1	45.3	136.3	178.3	227.0	266.4	305.1
1975	78	32	65.1	129.0	203.3			
	79	15	75.9	139.6	202.0	248.4		
	80	10	56.8	106.0	167.6	224.8	272.5	
1976	78	33	78.1	153.6				
	79	73	77.0	139.9	187.7			
	80	67	54.6	106.0	162.5	213.1		
1977	78	4	67.9					
	79	99	69.7	123.4				
	80	159	56.6	108.8	167.2			
1978	79	45	63.1					
	80	102	54.7	102.7				
1979	80	24	57.6					
Weighted mean			63.0	118.4	175.5	222.6	273.8	305.1
Standard deviation			14.4	25.8	27.6	25.8	24.0	0.0
Number of fish		681	681	608	374	110	16	1

Table 15. Calculated lengths at age of the year-classes of brook trout in Headwater Pond. Calculations are based on trap and fyke netted fish in 1978 and fyke netted fish in 1979 and 1980. The number of examined fish of each year-class in each age group is bracketed.

Year-class	Year of capture	No. of fish	Mean calculated length (mm) at age 1	2	3	4	5	6
1973	78	3	64.4 (3)	130.9 (3)	167.1 (3)	217.9 (3)	271.1 (3)	
1974	78-80	15	70.7 (15)	129.1 (15)	182.9 (15)	238.4 (15)	280.9 (3)	305.1 (1)
1975	78-80	57	66.5 (57)	127.8 (57)	196.7 (57)	239.0 (25)	272.5 (10)	
1976	78-80	173	68.5 (173)	129.4 (173)	175.6 (140)	213.1 (67)		
1977	78-80	262	61.7 (262)	114.4 (258)	167.2 (159)			
1978	79-80	147	57.3 (147)	102.7 (102)				
1979	80	24	57.6 (24)					
Weighted mean			63.0	118.4	175.5	222.6	273.8	305.1
Standard deviation			14.4	25.8	27.6	25.8	24.0	0.0
Number of fish		681	681	608	374	110	16	1

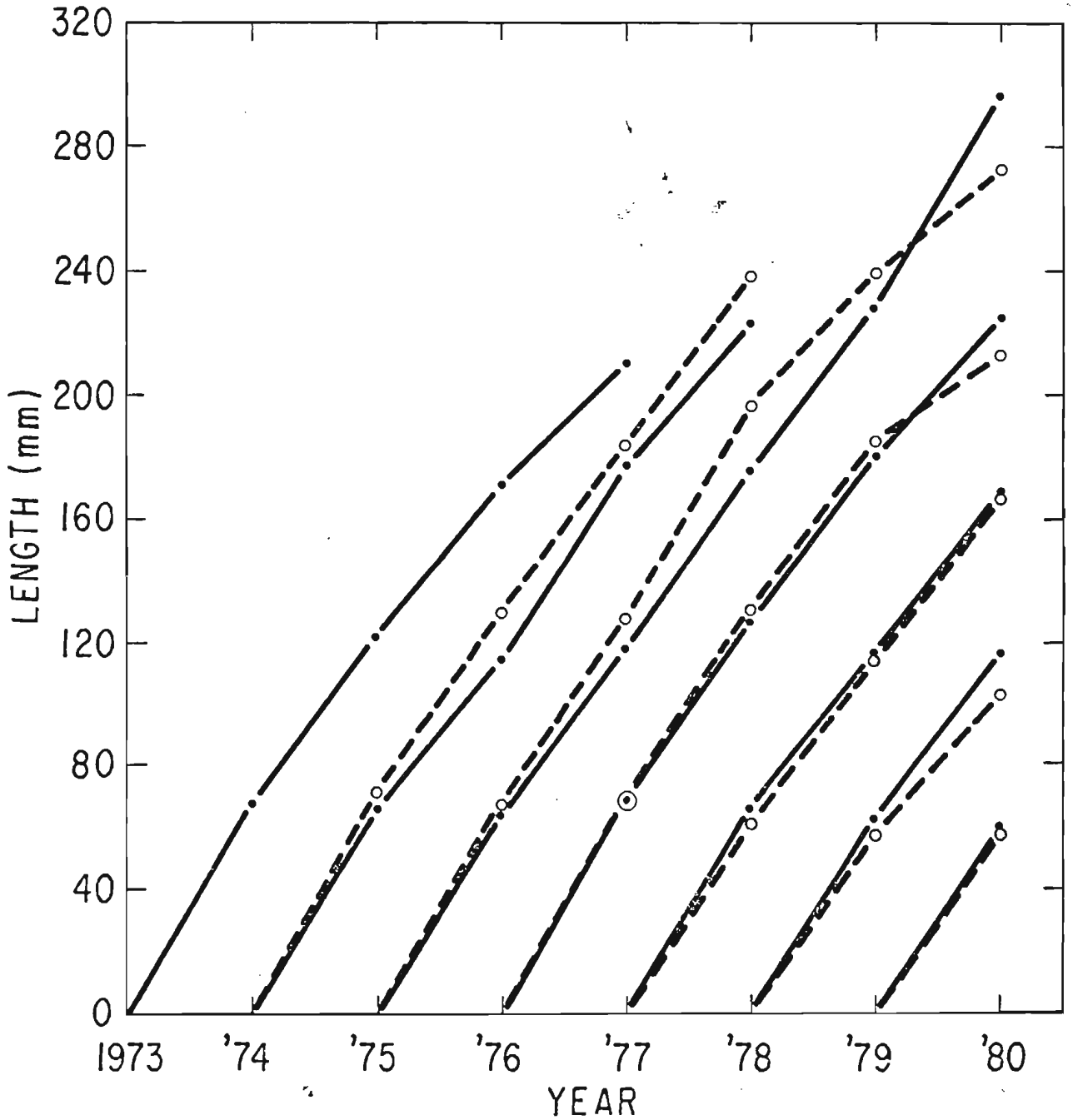
Table 16. Calculated growth increments of the year-classes of brook trout in Headwater Pond. Calculations are based on trap and fyke netted fish in 1978 and fyke netted fish in 1979 and 1980.

Year-Class	Year of Capture	Mean calculated growth increment (MM) in 1973	1974	1975	1976	1977	1978	1979
1973	78	64.4	66.5	36.2	50.8	53.2		
1974	78-80		70.7	58.4	53.8	55.5	42.5	24.2
1975	78-80			66.5	61.3	68.9	42.3	33.5
1976	78-80				68.5	60.9	46.2	37.5
1977	78-80					61.7	52.7	52.8
1978	79-80						57.3	45.4
1979	80							57.6
Sum 1st and 2nd year				124.9	129.8	122.6	110.0	103.0
Sum 3rd and 4th year					104.6	124.4	88.5	90.3
Sum 1st to 4th year					234.4	247.0	198.5	193.3

Table 17. Length-weight relationships of brook trout from the Experimental Ponds Area, Nfld. All fish were obtained by fyke net during the spring and fall population estimates. Relationships are least-squares regressions of log weight (g) on log length (mm).

	Spring					Fall				
Location	Dates of capture	Intercept	Slope	No. fish	Correlation coefficient	Dates of capture	Intercept	Slope	No. fish	Correlation coefficient
Spruce Pond	18/05/78-26/05/78	-4.49	2.79	109	0.986	14/09/78-06/10/78	-4.63	2.87	119	0.987
	18/05/79-25/05/79	-4.68	2.88	130	0.994	12/09/79-28/09/79	-4.66	2.87	82	0.986
	19/05/80-06/06/80	-5.13	3.09	86	0.993	10/09/80-24/09/80	-5.27	3.14	96	0.993
Headwater Pond	18/05/79-30/05/79	-4.99	3.02	119	0.993	12/09/79-02/10/79	-4.41	2.78	118	0.977
	18/05/80-06/06/80	-4.80	2.94	137	0.993	10/09/80-24/09/80	-4.86	2.97	226	0.996

Fig. 2. Growth of the year-classes of brook trout in Spruce Pond (solid lines) and Headwater Pond (dashed lines). Only mean calculated lengths from five or more individuals are included.



Calculated lengths at age of the year-classes of brook trout from Headwater Pond were greater than those from Spruce Pond until the trend reversed with the 1977 year-class (Fig. 2).

Aged trout from Spruce Pond in the summer of 1977 (gillnetted, fyke netted, and angled) and in each spring and fall of 1978-80 (fyke netted fish only) provided data for future computation of population age structure and comparable length-weight relationships (Appendix 13). These and similar data from Headwater Pond in August and September of 1977 (trap and fyke netted fish) and each spring and fall from 1979 to 1980 (fyke netted) (Appendix 14) also provided, as was the case with the salmon data, evidence that the ages assigned to brook trout were, for the most part, the correct ages.

TROUT GROWTH IN WEIGHT

Length-weight regressions of brook trout from the Experimental Ponds Area, obtained from fish caught with comparable gear at comparable calendar dates, varied (Table 17, Appendices 13 and 14). With one exception, Spruce Pond trout had slightly higher length-weight exponents than their Headwater Pond counterparts.

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APPENDIX 1: ATLANTIC SALMON RAW DATA PRINTOUT

(i) Growth of salmon in Spruce Pond, Headwater Pond, and Little Gull Lake 1977–80 27

(ii) Growth of sea-run salmon in Spruce Pond 1977 (6+) and Little Gull Lake 1979 (5+) 56

The coding format is described in:

Nickerson, S., P. M. Ryan, G. Somerton, and J. Wright. 1980. A computer program for processing fish age and growth data. Can. Tech. Rep. Fish Aquat. Sci. 964: iv + 20 p.

Lake numbers 1, 2, and 3 indicate Spruce Pond, Headwater Pond, and Little Gull Lake, respectively.

1(i)

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)						
	37	1	190777	1	199.	88.	2	0	4	58.	14.	29.	42.	53.		
	38	1	190777	1	186.	84.	2	0	4	55.	13.	22.	39.	50.		
	39	1	190777	1	195.	98.	1	0	4	67.	9.	17.	28.	51.		
	40	1	190777	1	170.	61.	2	0	3	58.	8.	19.	43.			
	41	1	190777	1	197.	88.	2	0	3	55.	9.	20.	45.			
	42	1	190777	1	187.	78.	2	0	3	53.	12.	25.	42.			
	43	1	190777	1	179.	61.	1	0	4	43.	8.	19.	31.	37.		
	44	1	190777	1	190.	86.	2	0	4	58.	8.	22.	42.	54.		
	45	1	190777	1	186.	71.	2	0	4	45.	11.	18.	31.	36.		
	46	1	190777	1	202.	99.	1	0	4	46.	8.	13.	27.	36.		
	47	1	190777	1	190.	94.	2	0	3	47.	8.	17.	34.			
	48	1	190777	1	201.	90.	2	0	4	66.	6.	17.	32.	51.		
	49	1	190777	1	201.	90.	2	0	4	65.	13.	25.	43.	54.		
	50	1	190777	1	217.	124.	2	0	5	77.	8.	22.	37.	53.	63.	
	51	1	190777	1	175.	72.	1	0	3	47.	9.	15.	32.			
	52	1	190777	1	168.	70.	2	0	4	56.	11.	20.	33.	46.		
	53	1	190777	1	161.	63.	2	0	4	56.	9.	14.	26.	43.		
	54	1	190777	1	180.	71.	1	0	4	50.	12.	27.	34.	44.		
	55	1	190777	1	165.	63.	1	0	4	38.	11.	16.	27.	33.		
	56	1	190777	1	168.	63.	2	0	4	40.	7.	15.	23.	29.		
	57	1	190777	1	145.	47.	2	0	4	50.	9.	18.	35.	45.		
	58	1	190777	1	368.	575.	2	0	5	108.	10.	23.	51.	73.	100.	
	59	1	190777	1	171.	71.	2	0	3	43.	8.	15.	31.			
	60	1	200777	1	199.	97.	2	0	4	55.	10.	18.	29.	45.		
	61	1	200777	1	193.	85.	1	0	4	46.	9.	18.	24.	40.		
DROP	62	1	200777	1	168.	62.	1	0	0	0.						
	63	1	200777	1	175.	59.	2	0	4	50.	9.	20.	29.	39.		
	64	1	200777	1	165.	64.	1	0	4	45.	5.	11.	19.	34.		
	65	1	200777	1	166.	63.	1	0	3	53.	9.	26.	42.			
	66	1	200777	1	159.	57.	2	0	3	45.	9.	18.	32.			
	67	1	200777	1	161.	60.	1	0	3	46.	10.	24.	39.			
	68	1	200777	1	166.	53.	2	0	4	53.	9.	19.	27.	39.		
	69	1	200777	1	144.	48.	2	0	4	36.	11.	15.	24.	32.		
	70	1	200777	1	157.	53.	1	0	3	33.	7.	12.	25.			
	71	1	200777	1	211.	105.	2	0	4	55.	8.	17.	29.	49.		
	72	1	200777	1	332.	418.	1	0	6	65.	7.	10.	16.	26.	36.	52.
	73	1	200777	1	221.	111.	2	0	5	66.	7.	19.	35.	52.	60.	
	74	1	200777	1	191.	81.	1	0	5	57.	5.	14.	23.	42.	51.	
	75	1	200777	1	182.	81.	1	0	3	48.	9.	20.	37.			
	76	1	210777	1	195.	107.	1	0	4	55.	9.	20.	26.	40.		
	77	1	210777	1	186.	81.	2	0	4	53.	15.	21.	36.	44.		
	78	1	210777	1	200.	102.	2	0	4	51.	10.	16.	29.	38.		
	79	1	210777	1	200.	99.	1	0	3	58.	12.	22.	43.			
	80	1	210777	1	188.	76.	2	0	4	60.	16.	31.	42.	53.		
	81	1	210777	1	189.	77.	2	0	3	57.	10.	19.	40.			
	82	1	210777	1	162.	60.	1	0	3	45.	9.	18.	33.			
	83	1	210777	1	175.	80.	1	0	4	47.	7.	18.	29.	38.		
	84	1	210777	1	181.	64.	1	0	4	55.	11.	23.	32.	40.		
	85	1	210777	1	205.	102.	2	0	5	60.	5.	10.	30.	41.	49.	
	86	1	210777	1	195.	83.	1	0	5	63.	11.	18.	28.	43.	56.	
	87	1	210777	1	193.	96.	1	0	4	55.	14.	26.	37.	52.		
	88	1	210777	1	176.	60.	2	0	4	44.	10.	17.	30.	37.		
	89	1	210777	1	158.	62.	2	0	4	45.	6.	14.	22.	31.		
	90	1	210777	1	157.	54.	1	0	3	36.	9.	16.	28.			
	91	1	210777	1	150.	56.	2	0	3	38.	11.	16.	26.			

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
	92	1	210777	1	142.	41.	2	0	3	36.	9.	17.	26.		
	93	1	210777	1	130.	28.	1	0	3	37.	12.	17.	32.		
DROP	1	1	80677	6	200.	78.	3	0	0	0.					
	2	1	80677	6	185.	68.	3	0	4	44.	11.	19.	27.	37.	
	3	1	80677	6	170.	49.	2	1	3	39.	7.	17.	33.		
	4	1	80677	6	105.	12.	2	1	2	23.	7.	16.			
	5	1	80677	6	102.	18.	2	1	2	31.	12.	25.			
	6	1	80677	6	123.	33.	2	1	2	34.	13.	18.			
	7	1	80677	6	120.	23.	2	1	2	27.	12.	22.			
	8	1	80677	6	120.	33.	2	1	2	40.	12.	31.			
	9	1	80677	6	84.	9.	1	1	1	16.	11.				
	10	1	80677	6	188.	68.	3	0	4	46.	8.	15.	27.	41.	
	11	1	80677	6	100.	13.	2	1	2	25.	11.	21.			
	12	1	80677	6	150.	37.	1	0	3	37.	15.	22.	34.		
	13	1	80677	6	115.	37.	2	1	3	37.	8.	19.	31.		
	14	1	80677	6	182.	60.	3	0	4	38.	11.	19.	25.	32.	
	15	1	80677	6	181.	63.	3	0	3	39.	11.	19.	33.		
	16	1	80677	6	174.	45.	1	1	3	47.	10.	22.	42.		
	17	1	80677	6	167.	43.	1	1	4	40.	8.	15.	24.	37.	
	18	1	80677	6	145.	38.	1	2	3	32.	10.	16.	30.		
	19	1	80677	6	200.	83.	3	0	4	51.	10.	18.	34.	46.	
	20	1	80677	6	174.	57.	3	0	3	50.	12.	23.	37.		
	21	1	80677	6	181.	62.	3	0	3	43.	18.	32.	39.		
	22	1	80677	6	167.	50.	3	0	2	40.	15.	32.			
	23	1	80677	6	156.	48.	3	0	3	36.	12.	23.	32.		
	24	1	80677	6	173.	64.	3	0	3	41.	7.	17.	37.		
	25	1	80677	6	190.	69.	3	0	3	37.	11.	19.	30.		
	26	1	80677	6	110.	12.	1	1	2	26.	11.	22.			
	27	1	80677	6	169.	46.	2	1	4	47.	10.	19.	33.	43.	
	28	1	80677	6	184.	60.	2	1	4	42.	8.	17.	29.	37.	
	29	1	180777	6	137.	30.	3	0	3	35.	8.	22.	31.		
	30	1	180777	6	68.	4.	3	0	1	19.	10.				
	31	1	180777	6	75.	6.	3	0	1	16.	7.				
	32	1	180777	6	78.	6.	3	0	2	15.	7.	13.			
	33	1	180777	6	70.	4.	3	0	1	17.	7.				
	34	1	180777	6	68.	4.	3	0	2	20.	10.	17.			
	35	1	150677	6	152.	34.	3	0	3	40.	9.	22.	34.		
	36	1	150677	6	260.	135.	3	0	5	65.	18.	29.	39.	54.	62.
	94	1	210777	7	175.	59.	3	0	4	40.	6.	15.	29.	36.	
	95	1	210777	7	130.	32.	3	0	3	33.	9.	22.	29.		
	180	1	18057A	6	192.	77.	3	0	4	43.	5.	13.	25.	39.	
	181	1	18057A	6	152.	37.	3	0	3	29.	5.	15.	26.		
	182	1	18057A	6	192.	76.	3	0	4	40.	7.	12.	25.	34.	
	183	1	18057A	6	190.	71.	3	0	4	49.	6.	15.	32.	47.	
	184	1	18057A	6	141.	27.	3	0	3	34.	5.	19.	34.		
	185	1	18057A	6	170.	52.	3	0	4	38.	6.	14.	26.	36.	
	186	1	18057A	6	168.	53.	3	0	4	39.	4.	14.	29.	39.	
	187	1	18057A	6	121.	21.	3	0	2	24.	6.	21.			
	188	1	18057A	6	186.	64.	3	0	4	46.	12.	26.	37.	45.	
	189	1	18057A	6	162.	42.	3	0	3	32.	6.	17.	29.		
	190	1	18057A	6	120.	20.	3	0	3	17.	4.	11.	16.		
	191	1	18057A	6	152.	36.	3	0	4	26.	6.	12.	19.	24.	
	192	1	18057A	6	117.	19.	3	0	2	21.	4.	17.			
	193	1	18057A	6	95.	13.	3	0	2	17.	4.	13.			
	194	1	18057A	6	104.	16.	3	0	2	19.	9.	19.			

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
195	1	180578	6	109.	17.	3	0	2	19.	9.	18.			
196	1	180578	6	172.	53.	3	0	4	38.	7.	13.	24.	37.	
197	1	180578	6	152.	36.	3	0	4	35.	4.	15.	26.	33.	
198	1	180578	6	162.	45.	3	0	4	40.	3.	9.	24.	39.	
199	1	180578	6	218.	101.	3	0	5	53.	5.	22.	31.	42.	50.
200	1	180578	6	89.	12.	3	0	1	12.	10.				
201	1	180578	6	105.	17.	3	0	2	14.	5.	13.			
202	1	180578	6	101.	14.	3	0	2	15.	8.	14.			
203	1	180578	6	124.	24.	3	0	3	30.	7.	20.	28.		
204	1	180578	6	95.	13.	3	0	3	34.	8.	21.	33.		
205	1	180578	6	111.	18.	3	0	3	28.	4.	14.	26.		
206	1	180578	6	134.	28.	3	0	3	29.	6.	14.	27.		
207	1	180578	6	100.	15.	3	0	3	29.	6.	16.	26.		
208	1	180578	6	93.	15.	3	0	2	16.	6.	14.			
209	1	180578	6	92.	13.	3	0	2	14.	4.	13.			
210	1	180578	6	115.	20.	3	0	3	22.	7.	15.	22.		
211	1	180578	6	101.	17.	3	0	3	18.	6.	11.	16.		
212	1	180578	6	120.	22.	3	0	2	24.	4.	21.			
213	1	180578	6	95.	11.	3	0	2	12.	5.	11.			
214	1	180578	6	112.	17.	3	0	2	12.	6.	12.			
215	1	180578	6	93.	13.	3	0	2	12.	5.	9.			
216	1	180578	6	96.	14.	3	0	2	18.	5.	16.			
217	1	180578	6	103.	14.	3	0	2	17.	5.	15.			
218	1	180578	6	111.	18.	3	0	3	21.	6.	14.	19.		
219	1	180578	6	96.	14.	3	0	2	22.	9.	20.			
220	1	180578	6	84.	12.	3	0	2	11.	3.	11.			
221	1	180578	6	131.	29.	3	0	3	28.	7.	18.	26.		
222	1	180578	6	172.	56.	3	0	4	43.	8.	16.	27.	41.	
223	1	180578	6	90.	13.	3	0	2	13.	5.	11.			
224	1	180578	6	94.	12.	3	0	2	12.	6.	11.			
225	1	180578	6	102.	15.	3	0	2	17.	7.	15.			
226	1	180578	6	92.	13.	3	0	2	17.	6.	16.			
227	1	180578	6	110.	18.	3	0	2	21.	7.	18.			
228	1	180578	6	127.	26.	3	0	3	30.	8.	19.	28.		
229	1	180578	6	123.	24.	3	0	3	24.	6.	12.	21.		
230	1	180578	6	135.	31.	3	0	3	27.	6.	18.	25.		
231	1	180578	6	169.	47.	3	0	4	36.	5.	13.	22.	36.	
232	1	180578	6	162.	48.	3	0	4	33.	4.	12.	17.	32.	
233	1	180578	6	84.	10.	3	0	2	18.	6.	16.			
234	1	180578	6	89.	11.	3	0	2	16.	7.	14.			
235	1	180578	6	141.	34.	3	0	3	22.	5.	12.	21.		
236	1	180578	6	97.	14.	3	0	2	17.	10.	16.			
237	1	180578	6	176.	65.	3	0	4	49.	5.	15.	23.	46.	
238	1	180578	6	211.	89.	3	0	5	54.	9.	21.	37.	44.	52.
239	1	180578	6	188.	68.	3	0	4	38.	5.	11.	26.	35.	
240	1	180578	6	171.	52.	3	0	4	33.	6.	12.	25.	31.	
241	1	180578	6	174.	52.	3	0	4	50.	5.	11.	23.	48.	
242	1	180578	6	173.	49.	3	0	4	49.	8.	19.	30.	48.	
243	1	180578	6	196.	75.	3	0	4	35.	5.	9.	13.	26.	
244	1	180578	6	170.	55.	3	0	4	45.	5.	11.	25.	43.	
245	1	180578	6	146.	60.	3	0	5	45.	4.	13.	21.	26.	37.
246	1	180578	6	218.	110.	3	0	5	55.	5.	10.	20.	42.	53.
247	1	180578	6	176.	52.	3	0	4	40.	7.	12.	27.	31.	
248	1	180578	6	200.	93.	3	0	5	37.	6.	11.	18.	27.	36.
249	1	180578	6	183.	51.	3	0	4	37.	4.	11.	24.	37.	

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEx	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
	250	1	180578	6	216.	82.	3	0	5	55.	4.	9.	19.	32.	54.
	251	1	180578	6	220.	99.	3	0	5	53.	9.	20.	31.	36.	46.
	252	1	180578	6	162.	44.	3	0	4	37.	7.	15.	21.	37.	
	253	1	180578	6	163.	46.	3	0	3	40.	10.	22.	40.		
	254	1	180578	6	210.	92.	3	0	4	50.	9.	16.	32.	43.	
	255	1	180578	6	190.	63.	3	0	4	39.	6.	12.	25.	35.	
	256	1	180578	6	188.	59.	3	0	4	34.	6.	12.	21.	33.	
	257	1	180578	6	85.	10.	3	0	2	16.	4.	13.			
	258	1	180578	6	85.	10.	3	0	2	13.	5.	12.			
	259	1	180578	6	182.	60.	3	0	4	40.	7.	16.	28.	38.	
	260	1	180578	6	216.	95.	3	0	5	55.	7.	16.	31.	42.	53.
	261	1	180578	6	211.	87.	3	0	5	49.	9.	15.	29.	37.	49.
	262	1	180578	6	182.	43.	3	0	4	51.	9.	19.	30.	49.	
	263	1	180578	6	172.	33.	3	0	4	31.	8.	14.	23.	31.	
	264	1	180578	6	187.	63.	3	0	4	51.	7.	14.	30.	48.	
	265	1	180578	6	186.	64.	3	0	4	47.	8.	14.	31.	45.	
	266	1	180578	6	197.	70.	3	0	4	48.	8.	19.	32.	48.	
	267	1	180578	6	194.	68.	3	0	4	48.	7.	16.	25.	45.	
	268	1	180578	6	209.	89.	3	0	5	60.	7.	21.	40.	47.	60.
DROP	269	1	220578	6	277.	0.	3	0	5	78.	8.	19.	34.	65.	76.
	270	1	190578	6	225.	102.	3	0	4	56.	8.	17.	32.	53.	
	271	1	190578	6	223.	105.	3	0	4	63.	7.	18.	36.	62.	
	272	1	180578	6	165.	46.	3	0	3	33.	11.	25.	32.		
	273	1	180578	6	182.	58.	3	0	4	40.	6.	13.	24.	38.	
	274	1	180578	6	154.	40.	3	0	3	38.	9.	20.	36.		
	275	1	180578	6	159.	46.	3	0	3	34.	7.	15.	32.		
	276	1	180578	6	105.	16.	3	0	2	26.	8.	22.			
	277	1	180578	6	156.	40.	3	0	3	31.	6.	17.	29.		
	278	1	180578	6	196.	79.	3	0	3	47.	7.	25.	45.		
	279	1	180578	6	212.	83.	3	0	4	54.	6.	14.	30.	53.	
	280	1	180578	6	155.	44.	3	0	4	34.	6.	18.	27.	34.	
	281	1	180578	6	166.	48.	3	0	2	29.	4.	15.			
	282	1	180578	6	130.	24.	3	0	2	21.	9.	20.			
	283	1	180578	6	217.	97.	3	0	4	47.	11.	21.	34.	45.	
	284	1	180578	6	206.	87.	3	0	5	45.	7.	14.	21.	28.	45.
	285	1	180578	6	181.	60.	3	0	4	44.	8.	16.	27.	42.	
	286	1	180578	6	172.	51.	3	0	4	31.	6.	13.	20.	29.	
	287	1	180578	6	148.	31.	3	0	4	39.	6.	15.	26.	38.	
	288	1	180578	6	103.	15.	3	0	3	26.	4.	9.	23.		
	289	1	180578	6	97.	16.	3	0	3	19.	6.	10.	18.		
	290	1	180578	6	105.	16.	3	0	3	27.	4.	13.	25.		
	291	1	180578	6	106.	17.	3	0	3	21.	4.	12.	19.		
	292	1	180578	6	98.	13.	3	0	2	16.	8.	14.			
	293	1	180578	6	99.	15.	3	0	2	15.	8.	13.			
	294	1	180578	6	96.	14.	3	0	3	20.	4.	15.	19.		
	295	1	180578	6	165.	46.	3	0	4	39.	5.	13.	23.	38.	
	296	1	180578	6	193.	78.	3	0	4	39.	6.	13.	24.	36.	
	297	1	180578	6	206.	88.	3	0	4	44.	9.	16.	31.	39.	
	298	1	180578	6	229.	113.	3	0	5	50.	6.	14.	25.	39.	47.
	299	1	180578	6	182.	61.	3	0	4	36.	4.	11.	28.	34.	
	300	1	180578	6	174.	60.	3	0	4	44.	5.	10.	28.	42.	
	301	1	180578	6	189.	65.	3	0	4	49.	6.	12.	34.	47.	
	302	1	180578	6	84.	12.	3	0	2	12.	4.	10.			
	303	1	180578	6	88.	9.	3	0	2	19.	7.	17.			
	304	1	180578	6	185.	59.	3	0	4	44.	6.	13.	25.	39.	

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
	305	1	180578	6	177.	54.	3	0	4	41.	5.	11.	17.	39.	
	1	1	180978	6	188.	68.	3	0	5	49.	7.	17.	27.	34.	44.
	2	1	150978	6	103.	11.	3	0	2	17.	4.	11.			
	3	1	140978	6	182.	58.	3	0	5	35.	7.	11.	14.	20.	30.
	4	1	150978	6	187.	63.	3	0	4	38.	6.	9.	17.	25.	
	5	1	140978	6	90.	9.	3	0	2	18.	7.	12.			
	6	1	140978	6	85.	6.	3	0	1	16.	8.				
	7	1	140978	6	169.	50.	3	0	4	38.	7.	14.	18.	32.	
	8	1	140978	6	105.	14.	3	0	2	23.	7.	13.			
	9	1	140978	6	122.	21.	3	0	2	26.	7.	18.			
	10	1	150978	6	113.	14.	3	0	2	28.	11.	17.			
	11	1	140978	6	100.	10.	3	0	2	19.	5.	10.			
	12	1	140978	6	138.	31.	3	0	3	38.	4.	10.	22.		
	13	1	200978	6	283.	279.	3	0	5	70.	8.	13.	21.	45.	60.
	14	1	140978	6	146.	35.	3	0	3	37.	7.	16.	23.		
	15	1	140978	6	122.	21.	3	0	2	27.	5.	13.			
	16	1	140978	6	135.	36.	3	0	3	36.	7.	13.	26.		
	17	1	140978	6	80.	8.	3	0	2	16.	5.	10.			
	18	1	140978	6	145.	33.	3	0	3	36.	6.	11.	18.		
	19	1	150978	6	194.	72.	3	0	5	49.	8.	15.	25.	32.	37.
	20	1	140978	6	125.	21.	3	0	3	26.	4.	9.	17.		
	21	1	140978	6	190.	62.	3	0	5	49.	8.	13.	19.	28.	33.
	22	1	140978	6	137.	29.	3	0	3	32.	5.	9.	19.		
	23	1	140978	6	120.	13.	3	0	3	30.	6.	15.	21.		
	24	1	140978	6	132.	24.	3	0	3	30.	6.	16.	25.		
	25	1	140978	6	100.	10.	3	0	2	23.	7.	13.			
	26	1	140978	6	137.	28.	3	0	3	30.	9.	14.	18.		
	27	1	150978	6	114.	13.	3	0	2	27.	6.	14.			
	28	1	200978	6	193.	93.	3	0	5	49.	7.	16.	23.	35.	42.
	29	1	140978	6	96.	10.	3	0	2	16.	7.	11.			
	30	1	140978	6	129.	23.	3	0	2	31.	11.	21.			
	31	1	140978	6	94.	14.	3	0	2	19.	5.	10.			
	32	1	200978	6	156.	54.	3	0	4	45.	6.	16.	24.	35.	
	33	1	150978	6	102.	11.	3	0	2	20.	8.	11.			
	34	1	150978	6	115.	14.	3	0	2	25.	8.	14.			
	35	1	150978	6	111.	13.	3	0	2	23.	9.	19.			
	36	1	200978	6	197.	94.	3	0	5	47.	9.	12.	20.	27.	34.
	37	1	200978	6	164.	52.	3	0	4	44.	9.	13.	17.	27.	
	38	1	200978	6	208.	102.	3	0	5	58.	7.	13.	20.	25.	45.
	39	1	200978	6	218.	112.	3	0	5	50.	5.	10.	16.	24.	36.
	40	1	200978	6	126.	26.	3	0	2	26.	9.	18.			
	41	1	200978	6	101.	16.	3	0	3	24.	7.	12.	18.		
	42	1	200978	6	89.	14.	3	0	2	18.	6.	11.			
	43	1	200978	6	195.	88.	3	0	5	48.	7.	14.	22.	30.	38.
	44	1	200978	6	132.	32.	3	0	3	38.	13.	19.	26.		
	45	1	200978	6	152.	40.	3	0	4	41.	9.	13.	23.	33.	
	46	1	200978	6	113.	20.	3	0	2	21.	7.	13.			
	47	1	200978	6	184.	69.	3	0	4	43.	7.	19.	28.	36.	
	48	1	200978	6	211.	101.	3	0	5	44.	6.	11.	19.	25.	32.
	49	1	200978	6	165.	61.	3	0	4	43.	6.	14.	20.	33.	
	50	1	200978	6	167.	61.	3	0	4	48.	6.	14.	23.	38.	
DROP	51	1	180978	6	125.	0.	3	0	3	34.	10.	20.	24.		
	52	1	150978	6	152.	33.	3	0	3	34.	8.	17.	25.		
	53	1	150978	6	175.	46.	3	0	4	49.	8.	14.	26.	39.	
	54	1	150978	6	168.	42.	3	0	4	30.	5.	9.	16.	23.	

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
	55	1	150978	6	111.	16.	3	0	3	32.	6.	11.	18.		
	56	1	150978	6	108.	13.	3	0	2	25.	8.	18.			
	57	1	140978	6	165.	56.	3	0	4	34.	6.	10.	15.	23.	
	58	1	150978	6	116.	14.	3	0	3	28.	4.	11.	17.		
	59	1	140978	6	104.	12.	3	0	2	29.	10.	15.			
	60	1	140978	6	190.	84.	3	0	5	47.	8.	15.	20.	28.	33.
	61	1	140978	6	200.	97.	3	0	5	54.	6.	18.	28.	35.	39.
	62	1	140978	6	206.	89.	3	0	5	52.	6.	12.	28.	37.	45.
	63	1	140978	6	132.	37.	3	0	2	30.	11.	19.			
	64	1	140978	6	145.	45.	3	0	3	41.	8.	16.	31.		
	65	1	140978	6	145.	47.	3	0	3	31.	8.	13.	19.		
	66	1	140978	6	187.	70.	3	0	5	44.	6.	10.	22.	31.	35.
DROP	67	1	180978	6	175.	62.	3	0	0	0.					
	68	1	140978	6	120.	23.	3	0	2	28.	8.	17.			
	69	1	140978	6	110.	15.	3	0	2	25.	7.	15.			
	70	1	180978	6	135.	30.	3	0	3	25.	6.	14.	22.		
	71	1	180978	6	77.	10.	3	0	1	13.	6.				
DROP	72	1	180978	6	128.	0.	3	0	3	38.	10.	20.	26.		
	73	1	140978	6	116.	19.	3	0	2	21.	8.	16.			
	74	1	140978	6	124.	23.	3	0	3	26.	6.	12.	15.		
	75	1	180978	6	79.	10.	3	0	1	15.	7.				
	76	1	140978	6	87.	8.	3	0	2	22.	9.	18.			
	77	1	180978	6	140.	29.	3	0	3	34.	7.	14.	19.		
	78	1	180978	6	98.	12.	3	0	2	19.	7.	13.			
	79	1	180978	6	142.	34.	3	0	3	25.	7.	12.	15.		
	80	1	180978	6	209.	101.	3	0	4	47.	8.	13.	18.	31.	
	81	1	180978	6	173.	64.	3	0	3	33.	6.	11.	18.		
	82	1	180978	6	212.	114.	3	0	5	66.	8.	16.	30.	38.	51.
	83	1	180978	6	169.	48.	3	0	3	43.	6.	17.	32.		
	84	1	180978	6	99.	12.	3	0	2	17.	6.	11.			
	85	1	140978	6	131.	20.	3	0	3	29.	8.	15.	22.		
	86	1	180978	6	99.	12.	3	0	2	21.	6.	12.			
DROP	87	1	180978	6	155.	45.	3	0	0	0.					
	88	1	180978	6	168.	58.	3	0	4	33.	7.	13.	19.	31.	
	89	1	140978	6	106.	12.	3	0	2	22.	6.	12.			
	90	1	140978	6	130.	29.	3	0	3	30.	5.	9.	16.		
	91	1	140978	6	97.	15.	3	0	2	16.	6.	10.			
	92	1	140978	6	137.	35.	3	0	3	40.	9.	18.	25.		
	93	1	140978	6	84.	10.	3	0	2	27.	9.	20.			
	94	1	140978	6	95.	13.	3	0	2	22.	8.	14.			
	95	1	140978	6	139.	27.	3	0	3	31.	5.	15.	26.		
	96	1	180978	6	175.	58.	3	0	4	40.	6.	16.	25.	30.	
	97	1	180978	6	222.	120.	3	0	6	61.	5.	9.	18.	28.	39. 46.
	98	1	180978	6	156.	47.	3	0	3	43.	10.	18.	26.		
	99	1	180978	6	205.	88.	3	0	4	54.	9.	16.	27.	38.	
	100	1	150978	6	107.	12.	3	0	2	22.	5.	12.			
	101	1	140978	6	137.	26.	3	0	2	34.	8.	18.			
	102	1	140978	6	101.	13.	3	0	2	19.	4.	11.			
	103	1	150978	6	91.	11.	3	0	2	21.	6.	13.			
	104	1	200978	6	106.	18.	3	0	2	22.	6.	15.			
	105	1	200978	6	177.	74.	3	0	4	51.	10.	22.	30.	44.	
	106	1	140978	6	131.	27.	3	0	2	23.	8.	15.			
	107	1	140978	6	96.	11.	3	0	2	26.	8.	14.			
	108	1	140978	6	95.	9.	3	0	2	18.	4.	10.			
	109	1	150978	6	79.	6.	3	0	1	16.	8.				

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
	110	1	14097A	6	107.	15.	3	0	3	23.	5.	10.	16.		
	111	1	14097A	6	148.	38.	3	0	3	31.	10.	14.	20.		
	112	1	14097A	6	115.	16.	3	0	3	34.	6.	14.	21.		
	113	1	14097A	6	152.	39.	3	0	3	36.	6.	13.	21.		
	114	1	14097A	6	134.	25.	3	0	3	30.	7.	11.	17.		
	115	1	14097A	6	111.	19.	3	0	2	24.	7.	14.			
	116	1	15097A	6	155.	46.	3	0	3	43.	8.	20.	35.		
	117	1	15097A	6	107.	12.	3	0	3	25.	4.	12.	17.		
	118	1	14097A	6	140.	38.	3	0	3	39.	8.	12.	23.		
	119	1	14097A	6	231.	131.	3	0	4	56.	9.	18.	34.	48.	
	120	1	14097A	6	131.	27.	3	0	4	28.	5.	12.	16.	22.	
	121	1	14097A	6	120.	17.	3	0	3	26.	6.	10.	16.		
	122	1	15097A	6	171.	56.	3	0	4	44.	6.	11.	17.	27.	
	123	1	15097A	6	105.	13.	3	0	2	14.	5.	9.			
	124	1	15097A	6	163.	50.	3	0	3	40.	5.	16.	27.		
	125	1	15097A	6	108.	13.	3	0	2	22.	7.	12.			
	126	1	14097A	6	122.	17.	3	0	2	21.	5.	13.			
	127	1	14097A	6	173.	70.	3	0	4	42.	10.	20.	28.	32.	
	128	1	14097A	6	129.	15.	3	0	3	22.	5.	11.	15.		
	129	1	14097A	6	175.	55.	3	0	4	32.	4.	13.	18.	24.	
	130	1	14097A	6	77.	8.	3	0	1	17.	8.				
	131	1	14097A	6	187.	69.	3	0	5	43.	8.	15.	18.	25.	29.
	132	1	15097A	6	94.	9.	3	0	2	21.	7.	15.			
	133	1	14097A	6	124.	19.	3	0	2	28.	8.	17.			
	134	1	15097A	6	165.	53.	3	0	4	39.	9.	16.	19.	28.	
	135	1	15097A	6	183.	82.	3	0	4	43.	8.	15.	25.	30.	
	136	1	15097A	6	104.	11.	3	0	2	24.	7.	12.			
DROP	137	1	20097A	6	205.	90.	3	0	0	0.					
	138	1	14097A	6	182.	67.	3	0	4	47.	9.	21.	28.	34.	
	139	1	14097A	6	143.	36.	3	0	3	36.	6.	13.	25.		
	140	1	18097A	6	190.	65.	3	0	5	62.	5.	9.	17.	38.	55.
DROP	141	1	18097A	6	202.	0.	3	0	4	42.	7.	12.	18.	32.	
	142	1	18097A	6	115.	22.	3	0	2	21.	5.	10.			
	143	1	18097A	6	135.	22.	3	0	3	25.	7.	12.	20.		
	144	1	18097A	6	120.	21.	3	0	2	28.	8.	17.			
	145	1	20097A	6	131.	30.	3	0	3	35.	8.	14.	20.		
	146	1	20097A	6	129.	30.	3	0	3	37.	7.	13.	21.		
	147	1	20097A	6	98.	14.	3	0	2	20.	7.	13.			
	437	1	5107A	6	82.	6.	3	0	1	22.	12.				
	438	1	5107A	6	231.	137.	3	0	4	59.	8.	22.	38.	49.	
	439	1	27097A	6	89.	10.	3	0	1	17.	9.				
	440	1	21097A	6	117.	16.	3	0	2	31.	9.	19.			
DROP	306	1	7067A	9	171.	0.	3	0	4	63.	19.	36.	49.	58.	
DROP	307	1	7067A	9	183.	0.	3	0	3	52.	13.	30.	46.		
DROP	308	1	7067A	9	162.	0.	3	0	3	37.	10.	18.	33.		
DROP	309	1	7067A	9	180.	0.	3	0	4	47.	7.	21.	33.	42.	
DROP	310	1	7067A	9	190.	0.	3	0	4	43.	9.	19.	28.	38.	
DROP	311	1	7067A	9	192.	0.	3	0	4	46.	8.	17.	31.	42.	
DROP	312	1	7067A	9	170.	0.	3	0	3	28.	8.	12.	22.		
DROP	313	1	7067A	9	177.	0.	3	0	3	48.	14.	22.	43.		
DROP	314	1	7067A	9	167.	0.	3	0	4	34.	7.	18.	24.	30.	
DROP	315	1	7067A	9	166.	0.	3	0	3	38.	11.	21.	35.		
DROP	316	1	7067A	9	172.	0.	3	0	3	35.	7.	16.	30.		
DROP	317	1	7067A	9	177.	0.	3	0	4	54.	6.	14.	28.	42.	
DROP	318	1	7067A	9	162.	0.	3	0	3	32.	8.	18.	30.		

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
DROP	319	1	7067A	9	149.	0.	3	0	3	30.	11.	21.	26.		
DROP	320	1	7067A	9	173.	0.	3	0	3	39.	6.	18.	34.		
DROP	321	1	7067A	9	164.	0.	3	0	3	35.	7.	18.	30.		
DROP	322	1	7067A	9	192.	0.	3	0	4	53.	11.	19.	35.	48.	
DROP	323	1	7067A	9	179.	0.	3	0	4	42.	9.	18.	26.	39.	
DROP	324	1	13067A	9	172.	0.	3	0	3	42.	11.	23.	36.		
DROP	325	1	13067A	9	183.	0.	3	0	4	51.	10.	20.	33.	45.	
DROP	326	1	13067A	9	170.	0.	3	0	0	0.					
DROP	327	1	13067A	9	178.	0.	3	0	5	60.	8.	16.	26.	39.	49.
DROP	328	1	13067A	9	168.	0.	3	0	3	39.	8.	19.	31.		
DROP	329	1	13067A	9	191.	0.	3	0	4	39.	7.	13.	24.	35.	
DROP	330	1	13067A	9	161.	0.	3	0	4	40.	8.	17.	25.	34.	
DROP	331	1	13067A	9	165.	0.	3	0	3	42.	6.	13.	33.		
DROP	332	1	13067A	9	185.	0.	3	0	4	49.	12.	23.	33.	44.	
DROP	333	1	13067A	9	169.	0.	3	0	3	46.	9.	22.	39.		
DROP	334	1	13067A	9	184.	0.	3	0	3	48.	10.	22.	40.		
DROP	335	1	13067A	9	208.	0.	3	0	4	42.	6.	12.	22.	38.	
DROP	336	1	13067A	9	161.	0.	3	0	3	40.	11.	21.	36.		
DROP	337	1	13067A	9	175.	0.	3	0	3	40.	4.	18.	36.		
DROP	338	1	13067A	9	192.	0.	3	0	3	45.	11.	28.	40.		
DROP	404	1	20A7A	8	94.	0.	3	0	2	21.	7.	14.			
DROP	405	1	20A7A	8	85.	0.	3	0	1	20.	9.				
DROP	406	1	20A7A	8	99.	0.	3	0	1	27.	8.				
DROP	407	1	20A7A	8	76.	0.	3	0	1	17.	7.				
DROP	408	1	20A7A	8	84.	0.	3	0	1	18.	9.				
DROP	409	1	20A7A	8	92.	0.	3	0	2	27.	6.	14.			
DROP	410	1	20A7A	8	85.	0.	3	0	2	25.	6.	15.			
DROP	411	1	20A7A	8	79.	0.	3	0	1	18.	7.				
DROP	412	1	20A7A	8	84.	0.	3	0	1	17.	9.				
DROP	413	1	20A7A	8	91.	0.	3	0	2	19.	6.	11.			
DROP	414	1	20A7A	8	89.	0.	3	0	2	16.	5.	10.			
DROP	415	1	20A7A	8	118.	0.	3	0	2	26.	7.	19.			
DROP	416	1	20A7A	8	90.	0.	3	0	2	14.	8.	11.			
DROP	417	1	20A7A	8	72.	0.	3	0	2	16.	6.	11.			
DROP	418	1	20A7A	8	81.	0.	3	0	2	19.	8.	13.			
DROP	419	1	20A7A	8	103.	0.	3	0	3	19.	6.	9.	15.		
DROP	420	1	20A7A	8	65.	0.	3	0	1	12.	3.				
DROP	421	1	20A7A	8	77.	0.	3	0	1	16.	9.				
DROP	422	1	20A7A	8	75.	0.	3	0	1	15.	7.				
DROP	423	1	20A7A	8	51.	0.	3	0	1	30.	70.				
DROP	424	1	20A7A	8	80.	0.	3	0	1	16.	11.				
DROP	425	1	20A7A	8	100.	0.	3	0	3	27.	8.	16.	23.		
DROP	426	1	20A7A	8	93.	0.	3	0	2	21.	7.	17.			
DROP	427	1	20A7A	8	64.	0.	3	0	2	13.	6.	10.			
DROP	428	1	20A7A	8	69.	0.	3	0	1	14.	8.				
DROP	429	1	20A7A	8	119.	0.	3	0	3	26.	7.	18.	23.		
DROP	430	1	20A7A	8	76.	0.	3	0	2	23.	7.	12.			
DROP	431	1	20A7A	8	83.	0.	3	0	2	20.	8.	13.			
DROP	432	1	20A7A	8	87.	0.	3	0	1	20.	10.				
DROP	433	1	20A7A	8	70.	0.	3	0	2	12.	7.	10.			
DROP	434	1	20A7A	8	75.	0.	3	0	2	16.	10.	14.			
DROP	435	1	20A7A	8	74.	0.	3	0	1	15.	8.				
DROP	436	1	20A7A	8	64.	0.	3	0	1	14.	8.				
DROP	148	1	30A7A	8	131.	0.	3	0	3	33.	7.	13.	22.		
DROP	149	1	30A7A	8	118.	0.	3	0	2	27.	7.	15.			

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

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DROP	150	1	30878	8	96.	0.	3	0	2	24.	7.	16.			
DROP	151	1	30878	8	70.	0.	3	0	1	17.	7.				
DROP	152	1	30878	8	96.	0.	3	0	2	17.	6.	11.			
DROP	153	1	30878	8	67.	0.	3	0	1	15.	5.				
DROP	154	1	30878	8	87.	0.	3	0	2	16.	6.	10.			
DROP	155	1	30878	8	154.	0.	3	0	3	58.	9.	19.	38.		
DROP	156	1	30878	8	80.	0.	3	0	1	17.	7.				
DROP	157	1	30878	8	131.	0.	3	0	2	32.	8.	18.			
DROP	158	1	30878	8	71.	0.	3	0	1	16.	7.				
DROP	159	1	30878	8	108.	0.	3	0	2	27.	9.	21.			
DROP	160	1	30878	8	120.	0.	3	0	2	43.	13.	33.			
DROP	161	1	30878	8	126.	0.	3	0	2	35.	10.	22.			
DROP	162	1	30878	8	93.	0.	3	0	1	19.	14.				
DROP	163	1	30878	8	122.	0.	3	0	2	23.	7.	13.			
DROP	164	1	30878	8	94.	0.	3	0	1	20.	13.				
DROP	165	1	30878	8	85.	0.	3	0	1	20.	7.				
DROP	166	1	30878	8	65.	0.	3	0	1	15.	6.				
DROP	167	1	30878	8	65.	0.	3	0	1	16.	8.				
DROP	168	1	30878	8	88.	0.	3	0	1	17.	9.				
DROP	169	1	30878	8	80.	0.	3	0	1	21.	9.				
DROP	170	1	30878	8	105.	0.	3	0	2	21.	8.	13.			
DROP	171	1	30878	8	67.	0.	3	0	1	13.	5.				
DROP	172	1	30878	8	81.	0.	3	0	1	18.	9.				
DROP	173	1	30878	8	79.	0.	3	0	1	17.	9.				
DROP	174	1	30878	8	70.	0.	3	0	1	16.	10.				
DROP	175	1	30878	8	97.	0.	3	0	2	21.	6.	14.			
DROP	176	1	30878	8	93.	0.	3	0	2	20.	7.	15.			
DROP	177	1	30878	8	89.	0.	3	0	2	21.	8.	15.			
DROP	178	1	30878	8	69.	0.	3	0	1	17.	8.				
DROP	179	1	30878	8	101.	0.	3	0	2	19.	5.	14.			
	1	1	180579	6	155.	46.	3	0	5	30.	6.	10.	15.	25.	28.
	2	1	180579	6	178.	61.	3	0	3	40.	11.	20.	34.		
	3	1	180579	6	120.	28.	3	0	3	27.	7.	17.	25.		
	4	1	180579	6	216.	94.	3	0	5	50.	7.	13.	20.	36.	46.
	5	1	180579	6	176.	57.	3	0	4	46.	9.	17.	23.	38.	
	6	1	180579	6	170.	57.	3	0	4	39.	6.	17.	28.	35.	
	7	1	180579	6	132.	29.	3	0	4	28.	9.	15.	19.	25.	
	8	1	180579	6	172.	58.	3	0	4	43.	7.	15.	24.	39.	
	9	1	180579	6	178.	57.	3	0	5	62.	10.	17.	28.	43.	57.
	10	1	180579	6	179.	50.	3	0	4	45.	6.	19.	32.	45.	
	11	1	180579	6	163.	45.	3	0	4	36.	7.	12.	28.	31.	
	12	1	180579	6	120.	28.	3	0	3	23.	9.	17.	20.		
	13	1	180579	6	166.	55.	3	0	3	44.	6.	17.	37.		
	14	1	180579	6	118.	19.	3	0	3	33.	12.	21.	30.		
	15	1	180579	6	173.	61.	3	0	4	50.	8.	14.	25.	44.	
	16	1	180579	6	105.	21.	3	0	2	17.	7.	14.			
	17	1	180579	6	176.	53.	3	0	4	50.	9.	18.	32.	39.	
	18	1	180579	6	160.	44.	3	0	4	35.	9.	17.	24.	33.	
	19	1	180579	6	161.	47.	3	0	3	47.	9.	18.	41.		
	20	1	180579	6	161.	47.	3	0	4	33.	11.	20.	24.	31.	
	21	1	180579	6	81.	8.	3	0	2	12.	7.	12.			
	22	1	180579	6	185.	66.	3	0	4	43.	11.	18.	28.	41.	
	23	1	180579	6	168.	551.	3	0	4	37.	6.	18.	28.	34.	
	24	1	180579	6	152.	44.	3	0	4	32.	6.	15.	20.	25.	
	25	1	180579	6	192.	73.	3	0	4	41.	8.	13.	28.	39.	

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
26	1	180579	6	118.	28.	3	0	3	36.	13.	23.	33.		
27	1	180579	6	175.	55.	3	0	4	37.	9.	16.	20.	33.	
28	1	180579	6	111.	25.	3	0	2	17.	7.	14.			
29	1	180579	6	105.	14.	3	0	2	17.	7.	15.			
30	1	180579	6	104.	14.	3	0	2	25.	13.	23.			
31	1	180579	6	209.	99.	3	0	5	56.	12.	17.	30.	37.	48.
32	1	180579	6	159.	48.	3	0	3	32.	7.	15.	28.		
33	1	180579	6	83.	8.	3	0	2	16.	7.	14.			
34	1	180579	6	199.	65.	3	0	4	42.	5.	10.	24.	34.	
35	1	180579	6	193.	67.	3	0	4	60.	8.	18.	36.	49.	
36	1	180579	6	193.	73.	3	0	4	54.	9.	16.	28.	46.	
37	1	180579	6	191.	69.	3	0	4	47.	9.	19.	31.	45.	
38	1	180579	6	92.	9.	3	0	2	14.	7.	12.			
39	1	180579	6	178.	56.	3	0	4	39.	10.	15.	23.	36.	
40	1	180579	6	171.	52.	3	0	4	40.	6.	10.	27.	38.	
41	1	180579	6	111.	17.	3	0	3	27.	7.	12.	22.		
42	1	180579	6	180.	61.	3	0	5	43.	9.	21.	26.	32.	40.
43	1	180579	6	106.	24.	3	0	2	15.	10.	13.			
44	1	180579	6	141.	34.	3	0	3	30.	10.	18.	26.		
45	1	180579	6	181.	66.	3	0	4	34.	6.	10.	17.	30.	
46	1	180579	6	186.	65.	3	0	5	40.	6.	11.	22.	33.	39.
47	1	180579	6	188.	84.	3	0	5	56.	7.	15.	25.	42.	52.
48	1	180579	6	133.	31.	3	0	3	28.	6.	15.	25.		
49	1	180579	6	170.	55.	3	0	4	42.	9.	16.	22.	38.	
50	1	180579	6	137.	30.	3	0	3	32.	6.	16.	29.		
51	1	180579	6	139.	31.	3	0	3	33.	10.	21.	31.		
52	1	180579	6	175.	55.	3	0	3	49.	11.	25.	43.		
53	1	180579	6	144.	41.	3	0	4	34.	8.	14.	21.	31.	
54	1	180579	6	162.	46.	3	0	4	34.	8.	11.	16.	31.	
55	1	180579	6	156.	40.	3	0	3	27.	6.	13.	24.		
56	1	180579	6	200.	89.	3	0	4	47.	9.	18.	30.	41.	
57	1	180579	6	120.	20.	3	0	3	20.	8.	11.	17.		
58	1	180579	6	201.	88.	3	0	5	73.	10.	20.	28.	44.	67.
59	1	180579	6	98.	11.	3	0	2	19.	7.	17.			
60	1	180579	6	164.	48.	3	0	3	36.	9.	17.	32.		
61	1	180579	6	98.	13.	3	0	2	24.	8.	22.			
62	1	180579	6	123.	25.	3	0	3	24.	5.	12.	21.		
63	1	180579	6	156.	39.	3	0	3	26.	11.	14.	23.		
64	1	180579	6	160.	46.	3	0	3	29.	6.	13.	26.		
65	1	180579	6	91.	9.	3	0	2	19.	8.	16.			
66	1	180579	6	165.	50.	3	0	3	37.	11.	22.	35.		
67	1	180579	6	158.	41.	3	0	3	42.	12.	23.	39.		
68	1	180579	6	156.	31.	3	0	3	34.	11.	29.	31.		
69	1	180579	6	194.	84.	3	0	3	46.	11.	25.	40.		
70	1	180579	6	197.	82.	3	0	4	46.	11.	17.	31.	42.	
71	1	180579	6	227.	97.	3	0	4	36.	6.	13.	22.	33.	
72	1	180579	6	79.	10.	3	0	2	20.	8.	17.			
73	1	180579	6	224.	101.	3	0	5	58.	7.	14.	18.	34.	54.
74	1	180579	6	215.	91.	3	0	4	68.	8.	20.	39.	64.	
75	1	180579	6	173.	57.	3	0	3	44.	8.	20.	37.		
76	1	180579	6	218.	89.	3	0	4	70.	11.	31.	47.	65.	
77	1	180579	6	177.	55.	3	0	3	44.	9.	19.	39.		
78	1	180579	6	182.	67.	3	0	4	37.	8.	14.	26.	37.	
79	1	180579	6	157.	48.	3	0	4	46.	11.	19.	33.	40.	
80	1	180579	6	210.	90.	3	0	5	51.	6.	12.	23.	40.	49.

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)							
	81	1	180579	6	215.	84.	3	0	7	61.	8.	13.	22.	37.	42.	52.	61.
	82	1	180579	6	168.	47.	3	0	4	35.	7.	13.	20.	30.			
	83	1	180579	6	162.	51.	3	0	3	52.	13.	32.	46.				
	84	1	180579	6	96.	10.	3	0	2	21.	8.	16.					
	85	1	180579	6	142.	34.	3	0	3	28.	6.	13.	26.				
	86	1	180579	6	166.	46.	3	0	3	39.	8.	20.	37.				
	87	1	180579	6	148.	40.	3	0	3	31.	7.	16.	28.				
	88	1	180579	6	180.	51.	3	0	4	48.	7.	12.	26.	42.			
	89	1	180579	6	189.	66.	3	0	4	43.	10.	19.	26.	38.			
	90	1	180579	6	184.	60.	3	0	3	44.	12.	25.	41.				
	91	1	180579	6	171.	52.	3	0	3	54.	17.	31.	47.				
	92	1	180579	6	156.	40.	3	0	3	34.	7.	27.	30.				
	93	1	180579	6	181.	60.	3	0	4	40.	6.	12.	21.	32.			
	94	1	180579	6	163.	44.	3	0	4	37.	8.	13.	20.	31.			
	95	1	190579	6	125.	17.	3	0	3	26.	8.	16.	26.				
	96	1	190579	6	129.	24.	3	0	3	25.	7.	16.	25.				
	97	1	190579	6	135.	26.	3	0	3	30.	8.	20.	28.				
	98	1	190579	6	91.	8.	3	0	2	15.	6.	12.					
	99	1	190579	6	104.	12.	3	0	3	22.	6.	12.	20.				
	100	1	190579	6	92.	9.	3	0	2	20.	12.	16.					
DROP	101	1	190579	6	140.	30.	3	0	0	0.							
	102	1	190579	6	120.	19.	3	0	3	27.	6.	15.	24.				
	103	1	190579	6	105.	14.	3	0	2	21.	10.	17.					
	104	1	190579	6	118.	18.	3	0	3	30.	12.	18.	28.				
	105	1	190579	6	96.	10.	3	0	2	22.	9.	19.					
	106	1	190579	6	115.	17.	3	0	2	20.	9.	18.					
	107	1	190579	6	134.	26.	3	0	3	27.	7.	14.	24.				
	108	1	190579	6	110.	14.	3	0	2	16.	7.	14.					
	109	1	190579	6	125.	19.	3	0	3	27.	6.	14.	27.				
	110	1	190579	6	255.	165.	3	0	4	58.	9.	17.	34.	51.			
	111	1	190579	6	127.	21.	3	0	3	30.	10.	14.	26.				
	112	1	190579	6	122.	22.	3	0	3	31.	9.	16.	26.				
	113	1	190579	6	215.	89.	3	0	5	49.	6.	16.	26.	38.	45.		
	114	1	190579	6	140.	28.	3	0	4	37.	8.	14.	22.	37.			
DROP	115	1	190579	6	138.	0.	3	0	3	34.	11.	23.	31.				
	116	1	190579	6	112.	18.	3	0	3	15.	5.	10.	13.				
	117	1	190579	6	234.	122.	3	0	5	58.	12.	21.	36.	46.	55.		
	118	1	200579	6	262.	185.	3	0	5	66.	7.	17.	31.	55.	64.		
	119	1	200579	6	194.	69.	3	0	4	53.	9.	17.	31.	48.			
	120	1	200579	6	86.	7.	3	0	2	13.	6.	11.					
	121	1	200579	6	80.	5.	3	0	2	19.	7.	16.					
	122	1	200579	6	92.	7.	3	0	2	19.	7.	16.					
	123	1	200579	6	192.	71.	3	0	4	53.	10.	18.	34.	49.			
	124	1	200579	6	207.	88.	3	0	4	58.	11.	19.	36.	52.			
	125	1	200579	6	195.	63.	3	0	5	65.	9.	19.	25.	35.	59.		
	126	1	200579	6	93.	7.	3	0	2	16.	5.	14.					
	638	1	180579	6	124.	25.	1	0	3	38.	7.	24.	35.				
	639	1	180579	6	131.	28.	3	0	3	44.	9.	25.	41.				
	640	1	180579	6	116.	20.	1	0	3	25.	6.	12.	22.				
	642	1	180579	6	116.	18.	3	0	3	39.	12.	25.	36.				
	643	1	180579	6	156.	44.	1	0	3	42.	7.	19.	35.				
	644	1	180579	6	167.	47.	1	2	4	45.	9.	20.	32.	45.			
	645	1	180579	6	117.	18.	2	1	3	29.	5.	17.	27.				
	646	1	180579	6	126.	24.	1	1	3	29.	8.	16.	25.				
	647	1	180579	6	233.	108.	1	2	6	73.	8.	17.	39.	56.	62.	71.	

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)						
	648	1	180579	6	176.	66.	2	0	4	66.	12.	20.	39.	62.		
	649	1	180579	6	136.	29.	1	0	3	38.	10.	22.	33.			
	650	1	180579	6	197.	80.	1	2	4	72.	7.	13.	21.	48.		
	269	1	180979	6	265.	191.	3	0	6	73.	8.	15.	29.	47.	58.	65.
	270	1	180979	6	268.	191.	3	0	6	64.	7.	13.	20.	32.	52.	57.
	271	1	180979	6	122.	18.	3	0	3	37.	7.	20.	32.			
	272	1	180979	6	124.	19.	3	0	3	25.	7.	13.	21.			
	273	1	180979	6	180.	67.	3	0	4	43.	7.	11.	22.	32.		
	274	1	180979	6	180.	46.	3	0	5	65.	6.	11.	21.	31.	50.	
	275	1	180979	6	185.	72.	3	0	5	77.	8.	18.	23.	38.	57.	
DROP	276	1	180979	6	175.	44.	3	0	0	0.						
	277	1	180979	6	194.	60.	3	0	3	37.	8.	17.	27.			
	278	1	180979	6	193.	67.	3	0	4	66.	10.	19.	24.	45.		
DROP	279	1	180979	6	193.	66.	3	0	0	0.						
	280	1	180979	6	113.	16.	3	0	2	27.	7.	16.				
	281	1	180979	6	128.	18.	3	0	2	33.	9.	17.				
	282	1	180979	6	121.	15.	3	0	3	29.	6.	12.	20.			
	283	1	180979	6	133.	23.	3	0	3	26.	10.	15.	20.			
	284	1	190979	6	201.	79.	3	0	5	50.	11.	17.	23.	29.	37.	
	285	1	190979	6	210.	88.	3	0	5	56.	12.	18.	30.	41.	47.	
	286	1	190979	6	169.	53.	3	0	3	45.	9.	19.	32.			
	287	1	190979	6	172.	60.	3	0	4	49.	5.	9.	15.	30.		
	288	1	190979	6	199.	74.	3	0	5	61.	10.	18.	23.	39.	52.	
	289	1	190979	6	159.	46.	3	0	3	40.	9.	20.	29.			
	290	1	190979	6	78.	10.	3	0	2	21.	9.	17.				
	291	1	190979	6	159.	49.	3	0	3	40.	8.	16.	27.			
	292	1	190979	6	152.	40.	3	0	3	28.	11.	18.	22.			
	293	1	190979	6	140.	26.	3	0	3	31.	10.	19.	28.			
	294	1	190979	6	136.	24.	3	0	2	30.	7.	16.				
	295	1	190979	6	136.	23.	3	0	3	35.	11.	17.	27.			
	296	1	190979	6	138.	34.	3	0	3	35.	9.	19.	28.			
	297	1	190979	6	140.	39.	3	0	3	43.	5.	20.	30.			
	298	1	190979	6	141.	33.	3	0	3	41.	9.	20.	33.			
	299	1	200979	6	202.	89.	3	0	4	45.	7.	12.	19.	34.		
	300	1	200979	6	207.	92.	3	0	5	52.	12.	19.	25.	41.	47.	
	301	1	200979	6	217.	100.	3	0	6	71.	7.	17.	25.	32.	45.	64.
	302	1	200979	6	155.	41.	3	0	3	38.	7.	11.	24.			
	303	1	200979	6	216.	100.	3	0	6	71.	11.	21.	26.	43.	52.	61.
	304	1	200979	6	225.	111.	3	0	5	63.	7.	18.	24.	37.	49.	
	305	1	200979	6	192.	87.	3	0	5	47.	11.	15.	29.	35.	41.	
	306	1	200979	6	188.	65.	3	0	4	46.	10.	16.	28.	37.		
	307	1	200979	6	154.	47.	3	0	3	46.	9.	16.	29.			
	308	1	200979	6	150.	40.	3	0	3	31.	6.	12.	24.			
	309	1	200979	6	150.	35.	3	0	3	37.	7.	17.	25.			
	310	1	200979	6	165.	50.	3	0	4	32.	8.	14.	19.	24.		
	311	1	200979	6	162.	52.	3	0	4	43.	10.	22.	29.	37.		
	312	1	200979	6	176.	60.	3	0	4	35.	6.	12.	22.	28.		
	313	1	200979	6	148.	42.	3	0	3	47.	12.	27.	36.			
	314	1	200979	6	82.	11.	3	0	1	18.	8.					
	315	1	200979	6	145.	35.	3	0	2	29.	8.	15.				
	316	1	200979	6	95.	13.	3	0	1	20.	10.					
	317	1	200979	6	100.	15.	3	0	1	27.	12.					
	318	1	200979	6	119.	19.	3	0	2	32.	12.	22.				
	319	1	200979	6	120.	23.	3	0	3	25.	7.	14.	22.			
	320	1	200979	6	120.	24.	3	0	2	26.	8.	14.				

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)						
	321	1	200979	6	129.	30.	3	0	3	38.	5.	20.	30.			
	322	1	200979	6	127.	26.	3	0	3	23.	9.	12.	18.			
	323	1	200979	6	125.	30.	3	0	2	32.	12.	23.				
	324	1	200979	6	128.	25.	3	0	2	27.	7.	14.				
	325	1	200979	6	134.	30.	3	0	2	33.	11.	21.				
	326	1	200979	6	134.	28.	3	0	3	31.	8.	14.	26.			
	327	1	250979	6	228.	113.	3	0	5	61.	6.	12.	21.	41.	50.	
	328	1	250979	6	105.	11.	3	0	2	21.	7.	14.				
	329	1	250979	6	100.	15.	3	0	2	22.	10.	17.				
	330	1	260979	6	246.	164.	3	0	6	64.	8.	15.	28.	37.	43.	56.
	331	1	260979	6	210.	90.	3	0	6	55.	7.	12.	18.	34.	38.	45.
	332	1	270979	6	216.	98.	3	0	6	61.	8.	17.	24.	35.	43.	56.
	333	1	270979	6	240.	168.	3	0	5	59.	6.	12.	21.	32.	47.	
	334	1	270979	6	229.	122.	3	0	5	57.	9.	21.	32.	44.	49.	
	335	1	270979	6	85.	10.	3	0	1	16.	10.					
	651	1	130979	6	105.	13.	3	0	2	26.	7.	15.				
	652	1	130979	6	75.	4.	3	0	2	17.	7.	14.				
	641	1	170979	6	156.	48.	2	0	3	48.	11.	26.	36.			
DROP	127	1	220579	9	143.	0.	3	0	3	34.	11.	20.	31.			
DROP	128	1	220579	9	97.	0.	3	0	2	16.	6.	14.				
DROP	129	1	220579	9	136.	0.	3	0	3	32.	11.	20.	28.			
DROP	130	1	220579	9	189.	0.	3	0	3	56.	10.	28.	49.			
DROP	131	1	220579	9	128.	0.	3	0	2	22.	6.	18.				
DROP	132	1	220579	9	82.	0.	3	0	1	14.	10.					
DROP	133	1	220579	9	81.	0.	3	0	1	16.	11.					
DROP	134	1	220579	9	83.	0.	3	0	1	15.	11.					
DROP	135	1	220579	9	103.	0.	3	0	2	18.	6.	14.				
DROP	136	1	220579	9	94.	0.	3	0	2	17.	8.	13.				
DROP	137	1	220579	9	112.	0.	3	0	2	32.	12.	24.				
DROP	138	1	220579	9	174.	0.	3	0	3	40.	10.	20.	34.			
DROP	139	1	220579	9	215.	0.	3	0	5	51.	6.	22.	30.	38.	46.	
DROP	140	1	220579	9	175.	0.	3	0	3	37.	8.	19.	29.			
DROP	141	1	220579	9	233.	0.	3	0	5	72.	15.	22.	41.	53.	67.	
DROP	142	1	220579	9	122.	0.	3	0	3	26.	6.	17.	24.			
DROP	143	1	220579	9	99.	0.	3	0	2	24.	10.	21.				
DROP	144	1	220579	9	112.	0.	3	0	2	21.	7.	17.				
DROP	145	1	220579	9	100.	0.	3	0	2	24.	11.	19.				
DROP	146	1	220579	9	103.	0.	3	0	2	18.	8.	14.				
DROP	147	1	220579	9	108.	0.	3	0	2	20.	8.	16.				
DROP	148	1	220579	9	109.	0.	3	0	2	21.	9.	16.				
DROP	149	1	220579	9	155.	0.	3	0	3	44.	15.	30.	39.			
DROP	150	1	220579	9	208.	0.	3	0	5	56.	9.	20.	37.	47.	53.	
DROP	151	1	220579	9	161.	0.	3	0	3	33.	12.	19.	30.			
DROP	152	1	220579	9	166.	0.	3	0	3	46.	12.	23.	37.			
DROP	153	1	220579	9	196.	0.	3	0	3	45.	15.	34.	39.			
DROP	154	1	220579	9	153.	0.	3	0	3	33.	9.	17.	29.			
DROP	155	1	220579	9	150.	0.	3	0	3	37.	9.	19.	32.			
DROP	156	1	220579	9	172.	0.	3	0	3	44.	9.	23.	36.			
DROP	157	1	220579	9	165.	0.	3	0	3	37.	8.	17.	33.			
DROP	158	1	220579	9	165.	0.	3	0	3	40.	8.	20.	34.			
DROP	159	1	220579	9	87.	0.	3	0	2	21.	8.	15.				
DROP	160	1	220579	9	75.	0.	3	0	1	12.	9.					
DROP	161	1	220579	9	93.	0.	3	0	2	19.	7.	14.				
DROP	162	1	220579	9	181.	0.	3	0	4	43.	9.	19.	26.	38.		
DROP	163	1	230579	9	139.	0.	3	0	3	32.	11.	19.	28.			

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	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)				
DROP	164	1	230579	9	92.	0.	3	0	2	28.	11.	23.		
DROP	165	1	230579	9	171.	0.	3	0	3	46.	9.	23.	36.	
DROP	166	1	230579	9	105.	0.	3	0	3	22.	8.	13.	19.	
DROP	167	1	230579	9	98.	0.	3	0	2	22.	8.	17.		
DROP	168	1	230579	9	82.	0.	3	0	1	14.	10.			
DROP	169	1	230579	9	97.	0.	3	0	2	25.	9.	20.		
DROP	170	1	230579	9	98.	0.	3	0	2	19.	9.	16.		
DROP	171	1	230579	9	95.	0.	3	0	2	28.	12.	25.		
DROP	172	1	230579	9	162.	0.	3	0	3	37.	10.	19.	33.	
DROP	173	1	230579	9	144.	0.	3	0	3	34.	11.	22.	30.	
DROP	174	1	230579	9	200.	0.	3	0	3	56.	10.	24.	51.	
DROP	175	1	230579	9	65.	0.	3	0	1	14.	11.			
DROP	176	1	230579	9	102.	0.	3	0	2	17.	7.	13.		
DROP	177	1	230579	9	90.	0.	3	0	2	17.	6.	12.		
DROP	178	1	230579	9	73.	0.	3	0	1	12.	9.			
DROP	179	1	230579	9	70.	0.	3	0	1	13.	9.			
DROP	180	1	230579	9	70.	0.	3	0	1	18.	14.			
DROP	181	1	230579	9	118.	0.	3	0	3	30.	11.	17.	27.	
DROP	182	1	230579	9	119.	0.	3	0	2	23.	11.	17.		
DROP	183	1	230579	9	127.	0.	3	0	3	31.	7.	15.	27.	
DROP	184	1	230579	9	118.	0.	3	0	2	35.	13.	28.		
DROP	185	1	230579	9	117.	0.	3	0	3	29.	8.	17.	25.	
DROP	186	1	230579	9	111.	0.	3	0	2	24.	7.	18.		
DROP	187	1	230579	9	103.	0.	3	0	2	19.	6.	13.		
DROP	188	1	230579	9	97.	0.	3	0	2	26.	11.	20.		
DROP	189	1	230579	9	102.	0.	3	0	2	34.	13.	30.		
DROP	190	1	230579	9	99.	0.	3	0	2	20.	6.	14.		
DROP	191	1	230579	9	136.	0.	3	0	3	32.	9.	19.	28.	
DROP	192	1	230579	9	116.	0.	3	0	2	28.	11.	21.		
DROP	193	1	230579	9	87.	0.	3	0	2	20.	7.	14.		
DROP	194	1	230579	9	112.	0.	3	0	3	21.	6.	10.	19.	
DROP	195	1	230579	9	94.	0.	3	0	2	25.	10.	20.		
DROP	196	1	230579	9	131.	0.	3	0	3	37.	10.	24.	34.	
DROP	197	1	230579	9	101.	0.	3	0	2	23.	10.	19.		
DROP	198	1	230579	9	84.	0.	3	0	2	16.	7.	14.		
DROP	199	1	230579	9	109.	0.	3	0	2	24.	11.	19.		
DROP	200	1	240579	9	107.	0.	3	0	2	21.	8.	17.		
DROP	201	1	240579	9	117.	0.	3	0	2	21.	11.	17.		
DROP	202	1	240579	9	138.	0.	3	0	4	42.	12.	19.	24.	37.
DROP	203	1	240579	9	75.	0.	3	0	2	17.	6.	14.		
DROP	204	1	240579	9	105.	0.	3	0	2	21.	8.	17.		
DROP	205	1	240579	9	87.	0.	3	0	2	22.	7.	17.		
DROP	206	1	240579	9	118.	0.	3	0	3	29.	7.	20.	27.	
DROP	207	1	240579	9	108.	0.	3	0	2	31.	14.	27.		
DROP	208	1	240579	9	100.	0.	3	0	2	19.	9.	14.		
DROP	209	1	240579	9	82.	0.	3	0	1	14.	9.			
DROP	210	1	240579	9	76.	0.	3	0	1	13.	9.			
DROP	211	1	240579	9	81.	0.	3	0	1	16.	12.			
DROP	212	1	240579	9	76.	0.	3	0	1	13.	9.			
DROP	213	1	240579	9	74.	0.	3	0	1	17.	10.			
DROP	214	1	240579	9	89.	0.	3	0	2	17.	7.	12.		
DROP	215	1	240579	9	86.	0.	3	0	1	15.	11.			
DROP	216	1	240579	9	171.	0.	3	0	3	29.	7.	16.	25.	
DROP	217	1	250579	9	165.	0.	3	0	3	45.	12.	26.	40.	
DROP	218	1	290579	9	89.	0.	3	0	2	17.	7.	12.		

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	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)				
DROP	219	1	290579	9	101.	0.	3	0	2	25.	7.	19.		
DROP	220	1	290579	9	105.	0.	3	0	2	17.	8.	14.		
DROP	221	1	290579	9	89.	0.	3	0	1	22.	13.			
DROP	222	1	290579	9	148.	0.	3	0	3	38.	9.	22.	34.	
DROP	223	1	290579	9	196.	0.	3	0	4	55.	7.	18.	38.	51.
DROP	224	1	290579	9	201.	0.	3	0	4	55.	19.	36.	43.	51.
DROP	225	1	290579	9	211.	0.	3	0	4	50.	9.	21.	36.	46.
DROP	226	1	290579	9	138.	0.	3	0	0	0.				
DROP	227	1	290579	9	106.	0.	3	0	2	19.	7.	13.		
DROP	228	1	290579	9	77.	0.	3	0	1	16.	7.			
DROP	229	1	290579	9	91.	0.	3	0	2	17.	7.	12.		
DROP	230	1	290579	9	95.	0.	3	0	2	17.	7.	12.		
DROP	231	1	290579	9	143.	0.	3	0	3	46.	9.	24.	37.	
DROP	232	1	290579	9	115.	0.	3	0	2	27.	7.	19.		
DROP	233	1	290579	9	110.	0.	3	0	3	28.	7.	15.	21.	
DROP	234	1	290579	9	85.	0.	3	0	2	21.	9.	16.		
DROP	235	1	290579	9	99.	0.	3	0	2	30.	10.	20.		
DROP	236	1	290579	9	104.	0.	3	0	2	21.	11.	18.		
DROP	237	1	290579	9	71.	0.	3	0	1	13.	7.			
DROP	238	1	290579	9	72.	0.	3	0	1	17.	10.			
DROP	239	1	300579	9	189.	0.	3	0	4	43.	7.	14.	19.	33.
DROP	240	1	70679	9	63.	0.	3	0	1	15.	7.			
DROP	241	1	70679	9	69.	0.	3	0	1	16.	8.			
DROP	242	1	70679	9	75.	0.	3	0	1	14.	7.			
DROP	243	1	70679	9	64.	0.	3	0	1	13.	8.			
DROP	244	1	70679	9	71.	0.	3	0	2	17.	7.	12.		
DROP	245	1	70679	9	62.	0.	3	0	1	19.	11.			
DROP	246	1	70679	9	62.	0.	3	0	1	11.	7.			
DROP	247	1	70679	9	64.	0.	3	0	1	14.	7.			
DROP	248	1	70679	9	58.	0.	3	0	1	12.	7.			
DROP	249	1	70679	9	102.	0.	3	0	2	28.	10.	17.		
DROP	250	1	70679	9	74.	0.	3	0	1	18.	10.			
DROP	251	1	70679	9	65.	0.	3	0	1	19.	12.			
DROP	252	1	70679	9	85.	0.	3	0	2	20.	9.	16.		
DROP	253	1	140679	9	46.	0.	3	0	1	10.	6.			
DROP	254	1	140679	9	64.	0.	3	0	1	15.	10.			
DROP	255	1	140679	9	83.	0.	3	0	1	18.	9.			
DROP	256	1	140679	9	62.	0.	3	0	1	11.	8.			
DROP	257	1	140679	9	73.	0.	3	0	1	16.	10.			
DROP	258	1	140679	9	59.	0.	3	0	0	0.				
DROP	259	1	140679	9	58.	0.	3	0	1	12.	9.			
DROP	260	1	140679	9	96.	0.	3	0	2	24.	8.	15.		
DROP	261	1	140679	9	74.	0.	3	0	1	21.	10.			
DROP	262	1	140679	9	58.	0.	3	0	1	11.	6.			
DROP	263	1	140679	9	62.	0.	3	0	1	15.	9.			
DROP	264	1	140679	9	63.	0.	3	0	1	13.	8.			
DROP	265	1	140679	9	54.	0.	3	0	1	11.	8.			
DROP	266	1	240779	9	77.	0.	3	0	1	17.	9.			
DROP	267	1	240779	9	65.	0.	3	0	1	9.	6.			
DROP	268	1	240779	9	74.	0.	3	0	2	18.	8.	15.		
DROP	653	1	140679	9	88.	0.	3	0	2	28.	8.	15.		
DROP	654	1	140679	9	66.	0.	3	0	1	17.	12.			
DROP	655	1	90879	8	78.	0.	3	0	2	18.	5.	13.		
DROP	656	1	90879	8	69.	0.	3	0	2	14.	6.	11.		
DROP	657	1	90879	8	78.	0.	3	0	1	20.	10.			

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	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
DROP	658	1	140679	9	55.	0.	3	0	1	12.	8.				
DROP	659	1	140679	9	70.	0.	3	0	2	20.	6.	14.			
DROP	660	1	90879	8	69.	0.	3	0	1	15.	10.				
DROP	661	1	90879	8	69.	0.	3	0	1	14.	8.				
DROP	662	1	90879	8	76.	0.	3	0	2	19.	8.	15.			
DROP	663	1	90879	8	64.	0.	3	0	1	15.	10.				
DROP	664	1	90879	8	78.	0.	3	0	1	17.	8.				
DROP	665	1	90879	8	77.	0.	3	0	1	15.	9.				
	1	1	200580	6	183.	53.	3	0	4	35.	5.	11.	21.	31.	
	2	1	200580	6	183.	57.	3	0	4	41.	7.	13.	21.	38.	
	3	1	200580	6	151.	34.	3	0	3	47.	10.	22.	42.		
	4	1	200580	6	168.	45.	3	0	3	37.	7.	18.	35.		
	5	1	200580	6	115.	16.	3	0	2	18.	7.	16.			
	6	1	200580	6	94.	8.	3	0	2	12.	7.	12.			
	7	1	200580	6	164.	44.	3	0	4	36.	4.	10.	22.	36.	
	8	1	200580	6	144.	29.	3	0	3	33.	9.	18.	31.		
	9	1	200580	6	187.	58.	3	0	4	38.	8.	16.	26.	35.	
	10	1	200580	6	164.	41.	3	0	3	37.	11.	18.	33.		
	11	1	200580	6	156.	40.	3	0	4	38.	6.	12.	20.	34.	
	12	1	200580	6	182.	54.	3	0	4	50.	5.	15.	23.	41.	
	13	1	200580	6	165.	46.	3	0	4	42.	9.	17.	27.	36.	
	14	1	200580	6	90.	8.	3	0	2	18.	8.	16.			
	15	1	200580	6	138.	24.	3	0	3	32.	6.	16.	29.		
	16	1	200580	6	232.	106.	3	0	5	49.	5.	10.	19.	39.	46.
	17	1	200580	6	138.	28.	3	0	3	30.	8.	16.	26.		
	18	1	200580	6	215.	90.	3	0	5	61.	8.	21.	37.	49.	59.
	19	1	200580	6	126.	18.	3	0	3	23.	7.	16.	23.		
	20	1	200580	6	173.	53.	3	0	4	33.	5.	11.	15.	29.	
DROP	21	1	200580	6	103.	0.	3	0	2	17.	6.	14.			
	22	1	200580	6	162.	39.	3	0	4	33.	6.	10.	19.	30.	
	23	1	200580	6	152.	34.	3	0	4	40.	11.	19.	30.	36.	
	24	1	200580	6	197.	74.	3	0	4	55.	6.	14.	32.	49.	
	25	1	200580	6	125.	17.	3	0	2	20.	5.	12.			
	26	1	200580	6	132.	20.	3	0	3	22.	8.	13.	22.		
	27	1	200580	6	220.	94.	3	0	4	45.	5.	11.	26.	41.	
	28	1	200580	6	161.	42.	3	0	4	32.	4.	9.	19.	30.	
	29	1	200580	6	158.	36.	3	0	3	44.	10.	23.	39.		
	30	1	200580	6	173.	50.	3	0	4	49.	9.	20.	32.	45.	
	31	1	200580	6	124.	22.	3	0	3	27.	7.	13.	25.		
	32	1	200580	6	154.	36.	3	0	3	45.	6.	18.	41.		
	33	1	200580	6	132.	22.	3	0	3	23.	6.	12.	22.		
	34	1	200580	6	161.	40.	3	0	3	33.	9.	22.	31.		
	35	1	200580	6	132.	25.	3	0	3	24.	7.	16.	24.		
	36	1	270580	6	186.	61.	3	0	4	44.	10.	15.	31.	42.	
	37	1	270580	6	106.	16.	3	0	2	22.	7.	19.			
	38	1	270580	6	195.	67.	3	0	4	47.	6.	12.	26.	37.	
	39	1	270580	6	125.	23.	3	0	2	23.	10.	21.			
	40	1	270580	6	169.	47.	3	0	3	33.	8.	16.	30.		
	41	1	270580	6	218.	87.	3	0	5	53.	8.	17.	28.	38.	53.
	42	1	270580	6	176.	51.	3	0	4	34.	8.	16.	23.	30.	
	43	1	270580	6	238.	109.	3	0	5	65.	7.	18.	35.	52.	65.
	44	1	270580	6	103.	16.	3	0	2	16.	6.	13.			
	45	1	270580	6	120.	24.	3	0	3	30.	9.	19.	28.		
	46	1	270580	6	170.	49.	3	0	4	45.	11.	23.	37.	42.	
	47	1	270580	6	168.	43.	3	0	3	37.	10.	20.	34.		

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FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
48	1	270580	6	202.	79.	3	0	4	53.	7.	16.	29.	49.	
49	1	270580	6	101.	15.	3	0	2	18.	9.	16.			
50	1	270580	6	170.	47.	3	0	3	35.	8.	13.	30.		
51	1	270580	6	154.	33.	3	0	3	30.	7.	16.	28.		
52	1	270580	6	177.	54.	3	0	3	41.	7.	18.	36.		
53	1	270580	6	102.	16.	3	0	3	23.	7.	14.	19.		
54	1	270580	6	116.	18.	3	0	2	22.	11.	20.			
55	1	270580	6	105.	14.	3	0	2	20.	8.	16.			
56	1	270580	6	154.	40.	3	0	4	36.	7.	17.	26.	36.	
57	1	270580	6	135.	19.	3	0	3	26.	8.	18.	26.		
58	1	270580	6	241.	127.	3	0	5	61.	9.	15.	27.	43.	59.
59	1	270580	6	180.	53.	3	0	4	42.	6.	15.	24.	37.	
60	1	270580	6	165.	41.	3	0	4	39.	5.	11.	19.	35.	
61	1	270580	6	184.	60.	3	0	4	43.	6.	10.	21.	36.	
62	1	270580	6	140.	29.	3	0	3	24.	8.	15.	24.		
63	1	270580	6	165.	35.	3	0	4	32.	5.	14.	21.	30.	
64	1	270580	6	180.	57.	3	0	4	37.	6.	12.	23.	32.	
65	1	270580	6	110.	18.	3	0	2	21.	9.	17.			
66	1	270580	6	112.	18.	3	0	2	22.	9.	20.			
67	1	270580	6	167.	47.	3	0	4	45.	8.	18.	30.	41.	
68	1	270580	6	200.	77.	3	0	4	55.	6.	16.	28.	45.	
69	1	270580	6	130.	23.	3	0	3	33.	8.	15.	29.		
70	1	270580	6	215.	90.	3	0	5	45.	6.	16.	25.	34.	42.
71	1	270580	6	191.	62.	3	0	5	39.	8.	17.	24.	31.	36.
72	1	270580	6	115.	19.	3	0	2	24.	8.	22.			
73	1	270580	6	101.	14.	3	0	2	20.	7.	17.			
74	1	270580	6	177.	49.	3	0	3	35.	9.	17.	31.		
75	1	270580	6	190.	68.	3	0	4	46.	6.	11.	25.	42.	
76	1	270580	6	170.	45.	3	0	4	37.	7.	14.	24.	35.	
77	1	270580	6	182.	56.	3	0	4	40.	7.	16.	26.	37.	
78	1	270580	6	202.	75.	3	0	4	42.	7.	13.	23.	33.	
79	1	270580	6	237.	115.	3	0	5	56.	10.	19.	36.	48.	56.
80	1	270580	6	231.	105.	3	0	4	55.	7.	20.	33.	52.	
81	1	270580	6	115.	21.	3	0	2	30.	13.	25.			
82	1	270580	6	123.	24.	3	0	2	23.	10.	19.			
83	1	270580	6	155.	38.	3	0	4	35.	6.	14.	21.	30.	
84	1	270580	6	160.	42.	3	0	3	32.	6.	15.	26.		
85	1	270580	6	182.	58.	3	0	4	50.	7.	17.	29.	46.	
86	1	270580	6	130.	20.	3	0	3	33.	6.	15.	29.		
87	1	270580	6	174.	46.	3	0	4	44.	8.	15.	27.	40.	
88	1	270580	6	173.	48.	3	0	4	37.	6.	14.	24.	34.	
89	1	270580	6	185.	62.	3	0	4	57.	7.	19.	36.	52.	
90	1	270580	6	187.	58.	3	0	4	44.	8.	19.	36.	42.	
91	1	270580	6	198.	76.	3	0	4	54.	6.	17.	31.	51.	
92	1	270580	6	110.	14.	3	0	3	28.	9.	20.	28.		
93	1	270580	6	180.	56.	3	0	4	37.	6.	12.	23.	35.	
94	1	270580	6	101.	15.	3	0	2	18.	6.	16.			
95	1	270580	6	187.	56.	3	0	4	37.	7.	14.	25.	33.	
96	1	270580	6	204.	76.	3	0	4	46.	9.	19.	29.	42.	
97	1	270580	6	178.	52.	3	0	4	40.	7.	14.	23.	35.	
98	1	270580	6	102.	16.	3	0	3	22.	5.	10.	22.		
99	1	270580	6	189.	62.	3	0	4	38.	5.	10.	20.	35.	
100	1	280580	6	230.	100.	3	0	5	53.	6.	17.	27.	38.	48.
101	1	280580	6	260.	155.	3	0	6	62.	8.	14.	29.	36.	46. 56.
102	1	280580	6	238.	125.	3	0	5	61.	6.	12.	18.	37.	56.

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)						
103	1	40680	6	292.	211.	3	0	6	73.	7.	18.	25.	34.	41.	51.
104	1	170980	6	159.	42.	3	0	3	43.	8.	14.	28.			
105	1	170980	6	230.	115.	3	0	4	54.	7.	18.	35.	44.		
106	1	170980	6	144.	27.	3	0	2	28.	8.	20.				
107	1	170980	6	126.	21.	3	0	2	31.	9.	19.				
108	1	170980	6	206.	101.	3	0	4	58.	8.	22.	35.	47.		
109	1	170980	6	210.	99.	3	0	4	45.	9.	16.	23.	33.		
110	1	170980	6	218.	88.	3	0	4	42.	6.	12.	20.	31.		
111	1	170980	6	123.	18.	3	0	2	27.	8.	16.				
112	1	170980	6	202.	86.	3	0	4	50.	7.	16.	23.	33.		
113	1	170980	6	190.	68.	3	0	4	46.	6.	15.	24.	35.		
114	1	170980	6	104.	13.	3	0	1	19.	8.					
115	1	170980	6	151.	35.	3	0	3	40.	7.	16.	30.			
116	1	170980	6	152.	42.	3	0	3	31.	5.	11.	22.			
117	1	170980	6	139.	32.	3	0	3	35.	8.	17.	28.			
118	1	170980	6	140.	31.	3	0	3	43.	8.	19.	35.			
119	1	170980	6	208.	90.	3	0	3	50.	8.	19.	36.			
120	1	170980	6	169.	50.	3	0	3	47.	7.	18.	34.			
121	1	170980	6	205.	86.	3	0	4	63.	12.	22.	33.	52.		
122	1	170980	6	195.	70.	3	0	3	59.	7.	19.	39.			
123	1	170980	6	159.	52.	3	0	3	35.	7.	14.	27.			
124	1	170980	6	202.	83.	3	0	4	54.	7.	15.	20.	41.		
125	1	170980	6	212.	92.	3	0	4	46.	7.	15.	26.	37.		
126	1	170980	6	208.	92.	3	0	4	53.	7.	14.	25.	41.		
127	1	170980	6	160.	44.	3	0	3	39.	7.	16.	29.			
128	1	170980	6	252.	136.	3	0	4	52.	7.	14.	31.	44.		
129	1	170980	6	148.	33.	3	0	2	36.	10.	22.				
130	1	170980	6	105.	14.	3	0	1	25.	12.					
131	1	170980	6	220.	97.	3	0	5	73.	11.	23.	40.	56.	66.	
132	1	170980	6	131.	25.	3	0	2	35.	9.	18.				
133	1	170980	6	167.	55.	3	0	3	51.	13.	25.	39.			
134	1	170980	6	116.	14.	3	0	2	24.	7.	16.				
135	1	170980	6	179.	63.	3	0	3	42.	8.	16.	32.			
136	1	170980	6	209.	93.	3	0	4	54.	6.	13.	25.	37.		
137	1	170980	6	152.	40.	3	0	2	32.	8.	21.				
138	1	170980	6	241.	151.	3	0	4	65.	10.	26.	43.	55.		
139	1	170980	6	192.	70.	3	0	4	51.	9.	16.	25.	36.		
140	1	170980	6	194.	78.	3	0	4	63.	7.	20.	41.	54.		
141	1	170980	6	131.	26.	3	0	2	31.	8.	18.				
142	1	170980	6	130.	29.	3	0	2	35.	7.	16.				
143	1	170980	6	191.	62.	3	0	3	46.	9.	20.	34.			
144	1	170980	6	100.	16.	3	0	1	22.	9.					
145	1	170980	6	196.	71.	3	0	4	53.	6.	13.	21.	36.		
146	1	170980	6	142.	42.	3	0	3	39.	11.	20.	31.			
147	1	170980	6	154.	38.	3	0	3	36.	9.	21.	29.			
148	1	170980	6	168.	47.	3	0	3	35.	10.	15.	24.			
149	1	170980	6	116.	16.	3	0	2	19.	6.	12.				
150	1	170980	6	196.	72.	3	0	4	49.	7.	16.	25.	37.		
151	1	170980	6	230.	117.	3	0	5	50.	8.	19.	30.	40.	46.	
152	1	170980	6	150.	37.	3	0	3	37.	6.	12.	25.			
153	1	170980	6	208.	91.	3	0	4	57.	13.	22.	30.	43.		
154	1	180980	6	165.	46.	3	0	2	38.	10.	24.				
155	1	180980	6	146.	36.	3	0	3	39.	7.	15.	26.			
156	1	180980	6	96.	12.	3	0	1	21.	9.					
157	1	180980	6	131.	25.	3	0	3	35.	8.	17.	29.			

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)						
	158	1	180980	6	183.	61.	3	0	3	61.	11.	26.	47.			
	159	1	180980	6	122.	24.	3	0	2	25.	9.	18.				
	160	1	180980	6	131.	30.	3	0	2	27.	6.	14.				
	161	1	180980	6	122.	22.	3	0	2	35.	8.	20.				
	162	1	180980	6	145.	39.	3	0	3	33.	8.	17.	26.			
	163	1	180980	6	134.	28.	3	0	2	29.	9.	16.				
	164	1	180980	6	134.	30.	3	0	2	31.	10.	22.				
	165	1	180980	6	270.	227.	3	0	5	66.	6.	13.	24.	37.	49.	
	166	1	180980	6	140.	34.	3	0	2	28.	11.	18.				
	167	1	180980	6	115.	17.	3	0	2	25.	6.	16.				
	168	1	180980	6	144.	33.	3	0	3	35.	7.	13.	25.			
	169	1	180980	6	196.	90.	3	0	4	49.	7.	13.	25.	38.		
	170	1	180980	6	156.	36.	3	0	3	36.	5.	14.	23.			
	171	1	180980	6	101.	12.	3	0	1	23.	8.					
	172	1	180980	6	227.	111.	3	0	5	68.	7.	12.	22.	44.	62.	
	173	1	180980	6	145.	36.	3	0	3	32.	7.	17.	26.			
	174	1	180980	6	148.	39.	3	0	2	32.	7.	15.				
	175	1	180980	6	142.	36.	3	0	2	31.	8.	17.				
	176	1	180980	6	118.	21.	3	0	2	26.	6.	12.				
	177	1	180980	6	121.	22.	3	0	3	46.	7.	17.	31.			
	178	1	180980	6	110.	17.	3	0	2	23.	9.	16.				
	179	1	180980	6	89.	9.	3	0	1	24.	13.					
	180	1	180980	6	155.	42.	3	0	3	47.	9.	16.	32.			
	181	1	180980	6	115.	18.	3	0	2	20.	5.	11.				
DROP	182	1	220980	6	120.	0.	3	0	2	35.	10.	19.				
	183	1	230980	6	125.	26.	3	0	2	32.	10.	22.				
	184	1	230980	6	130.	21.	3	0	2	25.	10.	17.				
	185	1	230980	6	112.	18.	3	0	2	27.	9.	16.				
	323	1	170580	5	150.	30.	2	1	3	32.	7.	15.	29.			
	324	1	190580	5	214.	80.	1	0	6	45.	6.	13.	19.	32.	39.	45.
	325	1	190580	5	115.	19.	1	0	3	28.	5.	11.	25.			
	326	1	280580	5	175.	61.	1	1	4	56.	7.	21.	33.	47.		
	328	2	100680	9	226.	102.	2	2	6	72.	5.	10.	23.	45.	60.	72.
	329	2	100680	9	157.	35.	1	1	5	47.	7.	12.	19.	31.	41.	
	339	2	130978	2	142.	30.	3	0	2	43.	10.	25.				
	340	2	60978	2	82.	6.	3	0	1	18.	9.					
	342	2	300878	6	260.	184.	3	0	6	76.	10.	21.	31.	48.	59.	66.
	343	2	60978	2	103.	10.	3	0	2	18.	5.	12.				
	344	2	300878	6	220.	104.	3	0	6	61.	9.	17.	23.	28.	36.	42.
	345	2	60978	2	126.	22.	3	0	2	30.	7.	18.				
	350	2	60978	6	86.	8.	3	0	1	15.	9.					
	351	2	190978	2	148.	32.	3	0	3	39.	9.	16.	25.			
	352	2	60978	2	139.	26.	3	0	2	32.	7.	22.				
	353	2	60978	2	103.	11.	3	0	2	19.	8.	14.				
	354	2	60978	2	146.	36.	3	0	2	33.	7.	16.				
	355	2	130978	6	125.	20.	3	0	2	24.	11.	21.				
	356	2	130978	6	126.	19.	3	0	3	26.	6.	15.	23.			
	357	2	130978	2	99.	10.	3	0	2	26.	9.	17.				
	358	2	130978	6	116.	14.	3	0	2	24.	8.	16.				
	359	2	130978	6	128.	21.	3	0	3	28.	5.	14.	19.			
	360	2	130978	6	117.	14.	3	0	2	31.	8.	20.				
	361	2	130978	6	113.	20.	3	0	2	23.	7.	17.				
	362	2	60978	2	105.	13.	3	0	2	23.	8.	19.				
	363	2	130978	6	135.	24.	3	0	2	39.	17.	28.				
	364	2	130978	6	134.	23.	3	0	3	29.	7.	11.	15.			

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
365	2	130978	6	180.	67.	3	0	5	50.	6.	13.	19.	30.	39.
366	2	130978	6	107.	10.	3	0	2	18.	5.	12.			
367	2	130978	6	145.	34.	3	0	2	33.	10.	21.			
441	2	130978	6	158.	44.	3	0	3	25.	8.	16.	23.		
346	2	80978	1	162.	40.	1	1	3	36.	7.	12.	23.		
347	2	80978	1	206.	90.	1	1	6	59.	6.	14.	21.	28.	44. 51.
348	2	80978	1	146.	40.	1	1	3	45.	10.	19.	30.		
349	2	80978	1	170.	41.	1	1	3	42.	12.	19.	28.		
341	2	80978	1	293.	291.	2	2	6	100.	8.	16.	27.	37.	71. 95.
336	2	180579	6	170.	45.	3	0	3	39.	8.	23.	34.		
337	2	180579	6	170.	48.	3	0	3	37.	6.	16.	31.		
338	2	180579	6	160.	38.	3	0	3	51.	9.	27.	45.		
339	2	180579	6	216.	79.	3	0	4	47.	8.	19.	30.	44.	
340	2	180579	6	168.	48.	3	0	3	43.	9.	21.	37.		
341	2	180579	6	167.	47.	3	0	3	51.	9.	28.	43.		
342	2	180579	6	161.	43.	3	0	3	45.	8.	20.	37.		
343	2	180579	6	165.	44.	3	0	3	40.	10.	23.	37.		
344	2	180579	6	172.	51.	3	0	3	37.	8.	18.	32.		
345	2	180579	6	221.	103.	3	0	4	54.	12.	27.	44.	52.	
346	2	180579	6	171.	51.	3	0	3	35.	10.	19.	30.		
347	2	180579	6	162.	41.	3	0	3	39.	7.	22.	34.		
348	2	180579	6	164.	39.	3	0	3	37.	11.	22.	35.		
349	2	180579	6	155.	34.	3	0	3	39.	9.	24.	37.		
350	2	180579	6	156.	37.	3	0	3	33.	6.	15.	31.		
351	2	180579	6	157.	38.	3	0	3	39.	11.	17.	36.		
352	2	180579	6	156.	36.	3	0	3	52.	9.	31.	47.		
353	2	180579	6	155.	38.	3	0	3	56.	8.	28.	49.		
354	2	180579	6	159.	40.	3	0	3	44.	10.	23.	41.		
355	2	180579	6	205.	75.	3	0	4	55.	8.	21.	40.	55.	
356	2	180579	6	223.	102.	3	0	5	55.	8.	18.	29.	40.	51.
357	2	180579	6	120.	19.	3	0	3	33.	7.	16.	30.		
358	2	180579	6	165.	49.	3	0	3	42.	8.	21.	38.		
359	2	180579	6	215.	84.	3	0	5	62.	11.	30.	41.	52.	59.
360	2	180579	6	186.	63.	3	0	3	37.	8.	18.	31.		
361	2	180579	6	106.	11.	3	0	2	22.	7.	15.			
362	2	180579	6	105.	11.	3	0	2	31.	15.	26.			
363	2	180579	6	165.	42.	3	0	3	33.	8.	17.	28.		
364	2	180579	6	110.	13.	3	0	2	22.	7.	18.			
365	2	180579	6	104.	12.	3	0	2	33.	11.	28.			
366	2	180579	6	200.	71.	3	0	4	40.	13.	24.	29.	36.	
367	2	180579	6	127.	19.	3	0	3	29.	7.	16.	26.		
368	2	180579	6	125.	19.	3	0	3	31.	7.	17.	28.		
369	2	180579	6	132.	20.	3	0	3	36.	7.	18.	33.		
370	2	180579	6	227.	102.	3	0	4	70.	11.	29.	50.	66.	
371	2	180579	6	256.	150.	3	0	5	72.	13.	30.	49.	56.	69.
372	2	180579	6	151.	34.	3	0	3	39.	10.	19.	34.		
373	2	180579	6	200.	81.	3	0	4	63.	8.	21.	42.	60.	
374	2	190579	6	169.	52.	3	0	3	39.	10.	23.	35.		
375	2	190579	6	204.	91.	3	0	4	58.	7.	18.	32.	53.	
376	2	190579	6	171.	43.	3	0	3	45.	13.	22.	38.		
377	2	190579	6	164.	50.	3	0	3	44.	9.	25.	41.		
378	2	190579	6	174.	53.	3	0	3	39.	9.	20.	31.		
379	2	190579	6	145.	36.	3	0	3	27.	7.	15.	25.		
380	2	190579	6	148.	39.	3	0	3	34.	8.	18.	32.		
381	2	190579	6	184.	64.	3	0	3	40.	9.	22.	36.		

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)				
	382	2	190579	6	130.	11.	3	0	2	22.	9.	19.		
	383	2	190579	6	124.	24.	3	0	3	32.	9.	18.	29.	
	384	2	190579	6	172.	47.	3	0	4	40.	7.	15.	25.	37.
	385	2	190579	6	166.	47.	3	0	3	37.	9.	18.	33.	
	386	2	190579	6	176.	55.	3	0	3	32.	7.	15.	26.	
	387	2	190579	6	144.	30.	3	0	3	29.	8.	19.	28.	
	388	2	190579	6	155.	46.	3	0	3	34.	7.	19.	32.	
	389	2	190579	6	151.	29.	3	0	3	33.	9.	17.	28.	
	390	2	190579	6	159.	35.	3	0	3	37.	9.	21.	35.	
	391	2	190579	6	152.	41.	3	0	3	40.	9.	21.	36.	
	392	2	190579	6	150.	35.	3	0	3	34.	8.	20.	31.	
DROP	393	2	190579	6	156.	42.	3	0	0	0.				
DROP	396	2	200579	6	160.	74.	3	0	0	0.				
	400	2	200579	6	168.	65.	3	0	4	52.	11.	21.	33.	52.
	402	2	200579	6	160.	46.	3	0	4	42.	10.	14.	21.	37.
	403	2	200579	6	169.	50.	3	0	3	47.	7.	22.	38.	
	404	2	200579	6	178.	60.	3	0	4	43.	10.	22.	30.	41.
	405	2	200579	6	170.	77.	3	0	3	33.	8.	18.	28.	
	406	2	200579	6	174.	62.	3	0	4	49.	13.	26.	41.	47.
	407	2	200579	6	194.	85.	3	0	4	45.	11.	20.	25.	39.
	408	2	200579	6	136.	34.	3	0	2	32.	16.	25.		
	409	2	200579	6	142.	44.	3	0	3	32.	10.	21.	29.	
	410	2	200579	6	160.	49.	3	0	3	40.	10.	23.	33.	
	411	2	200579	6	178.	79.	3	0	3	46.	13.	25.	41.	
	412	2	200579	6	180.	59.	3	0	4	50.	9.	19.	32.	46.
	413	2	200579	6	95.	11.	3	0	2	21.	10.	19.		
	414	2	200579	6	95.	20.	3	0	2	25.	9.	21.		
	415	2	200579	6	157.	49.	3	0	3	33.	7.	20.	30.	
	416	2	200579	6	195.	115.	3	0	3	62.	16.	33.	54.	
	434	2	220579	6	165.	51.	3	0	3	34.	9.	20.	31.	
	435	2	220579	6	176.	58.	3	0	3	45.	11.	24.	42.	
	439	2	220579	6	170.	51.	3	0	3	38.	9.	19.	35.	
	440	2	220579	6	165.	42.	3	0	3	58.	10.	31.	48.	
	441	2	220579	6	165.	54.	3	0	3	41.	5.	18.	36.	
	442	2	220579	6	160.	41.	3	0	3	32.	7.	17.	26.	
	443	2	220579	6	172.	44.	3	0	3	46.	11.	27.	41.	
	444	2	220579	6	187.	72.	3	0	3	47.	15.	26.	41.	
	445	2	220579	6	184.	79.	3	0	3	52.	14.	28.	48.	
	446	2	220579	6	132.	31.	3	0	3	33.	8.	21.	29.	
	447	2	220579	6	182.	70.	3	0	3	43.	7.	20.	39.	
	448	2	220579	6	172.	47.	3	0	3	41.	11.	24.	38.	
DROP	449	2	220579	6	174.	0.	3	0	3	42.	11.	23.	37.	
	450	2	220579	6	135.	34.	3	0	3	32.	13.	21.	28.	
DROP	451	2	220579	6	196.	0.	3	0	3	45.	9.	21.	42.	
	452	2	220579	6	172.	54.	3	0	3	55.	12.	26.	40.	
	453	2	220579	6	112.	20.	3	0	3	30.	10.	17.	28.	
	454	2	220579	6	165.	43.	3	0	3	42.	15.	26.	39.	
	455	2	220579	6	163.	46.	3	0	3	39.	12.	26.	37.	
	458	2	220579	6	108.	17.	3	0	2	24.	10.	20.		
	463	2	220579	6	168.	60.	3	0	3	34.	7.	17.	32.	
	464	2	230579	6	154.	42.	3	0	3	31.	9.	19.	29.	
	469	2	230579	6	110.	23.	3	0	2	22.	7.	16.		
	470	2	230579	6	228.	119.	3	0	4	54.	8.	21.	37.	52.
	471	2	230579	6	131.	35.	3	0	3	37.	9.	20.	34.	
	472	2	230579	6	202.	85.	3	0	4	53.	10.	20.	33.	51.

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)						
473	2	230579	6	131.	28.	3	0	3	26.	9.	17.	24.			
474	2	230579	6	122.	28.	3	0	3	33.	12.	22.	31.			
666	2	220579	6	173.	55.	2	2	3	53.	10.	27.	45.			
667	2	220579	6	104.	11.	1	1	2	22.	7.	16.				
668	2	220579	6	163.	47.	1	2	4	49.	8.	14.	24.	39.		
669	2	220579	6	105.	14.	1	0	3	33.	7.	15.	28.			
670	2	220579	6	162.	48.	1	0	4	37.	7.	13.	20.	32.		
671	2	220579	6	153.	36.	2	0	4	30.	7.	13.	22.	27.		
672	2	220579	6	156.	43.	3	0	4	53.	9.	18.	27.	46.		
673	2	220579	6	113.	17.	2	0	4	35.	7.	13.	23.	31.		
674	2	220579	6	151.	34.	2	0	3	37.	9.	20.	34.			
675	2	220579	6	160.	42.	2	0	4	46.	8.	24.	33.	40.		
676	2	220579	6	153.	33.	1	0	4	50.	9.	22.	32.	46.		
677	2	220579	6	154.	34.	1	0	4	49.	8.	23.	30.	41.		
678	2	220579	6	160.	41.	2	0	3	40.	9.	21.	35.			
679	2	220579	6	175.	53.	2	0	3	48.	10.	22.	40.			
680	2	220579	6	170.	55.	2	0	4	44.	7.	14.	24.	37.		
681	2	220579	6	167.	53.	1	0	3	46.	13.	27.	38.			
682	2	220579	6	168.	46.	1	0	3	35.	7.	20.	31.			
683	2	220579	6	157.	38.	1	0	3	30.	8.	15.	27.			
684	2	220579	6	179.	59.	1	0	4	58.	13.	25.	34.	52.		
686	2	190579	6	114.	16.	2	1	3	30.	7.	18.	28.			
687	2	190579	6	100.	10.	1	1	2	21.	7.	19.				
688	2	210579	6	125.	20.	1	0	3	31.	11.	18.	26.			
689	2	240579	6	151.	42.	1	2	3	39.	8.	20.	35.			
691	2	220579	6	175.	62.	1	0	4	42.	7.	17.	29.	38.		
692	2	220579	6	146.	34.	1	0	3	34.	11.	19.	30.			
693	2	220579	6	162.	43.	2	0	4	47.	9.	17.	30.	42.		
694	2	220579	6	154.	41.	1	0	3	41.	8.	22.	36.			
695	2	220579	6	155.	38.	1	0	3	50.	6.	23.	43.			
696	2	220579	6	153.	41.	1	0	3	35.	7.	19.	30.			
697	2	220579	6	167.	48.	2	2	4	54.	4.	12.	20.	42.		
698	2	220579	6	162.	41.	1	0	4	49.	10.	20.	26.	43.		
699	2	220579	6	153.	35.	1	0	4	43.	6.	14.	26.	38.		
700	2	220579	6	132.	24.	1	0	3	38.	11.	21.	34.			
704	2	200579	6	170.	62.	3	0	5	43.	7.	12.	20.	29.	43.	
708	2	220579	6	152.	35.	2	1	3	37.	11.	23.	36.			
709	2	220579	6	161.	44.	1	1	3	36.	9.	20.	33.			
710	2	220579	6	156.	39.	2	1	4	29.	7.	15.	20.	26.		
711	2	220579	6	181.	62.	1	1	4	58.	7.	14.	33.	53.		
712	2	220579	6	251.	161.	2	2	6	97.	9.	22.	47.	67.	82.	93.
713	2	220579	6	185.	66.	2	0	4	47.	6.	14.	25.	42.		
715	2	220579	6	145.	32.	2	1	3	27.	6.	12.	24.			
716	2	220579	6	127.	22.	1	1	3	29.	8.	16.	27.			
717	2	220579	6	125.	20.	1	1	3	28.	9.	13.	25.			
718	2	220579	6	113.	16.	2	1	3	33.	9.	21.	32.			
719	2	220579	6	175.	55.	2	0	4	52.	8.	22.	35.	48.		
720	2	220579	6	177.	60.	2	0	5	45.	6.	17.	23.	29.	43.	
721	2	220579	6	174.	56.	1	0	5	55.	7.	13.	29.	47.	52.	
722	2	220579	6	170.	54.	1	0	3	47.	12.	23.	44.			
723	2	220579	6	172.	50.	2	0	4	50.	9.	22.	39.	48.		
724	2	220579	6	165.	47.	1	0	4	49.	12.	25.	40.	47.		
725	2	220579	6	160.	47.	1	0	3	40.	10.	20.	34.			
726	2	220579	6	161.	44.	1	0	4	54.	10.	26.	43.	51.		
497	2	180579	6	167.	45.	3	0	3	56.	9.	23.	49.			

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
	498	2	180579	6	163.	43.	3	0	3	42.	8.	21.	37.		
	520	2	190579	6	147.	34.	3	0	3	36.	9.	21.	34.		
	521	2	190579	6	165.	46.	3	0	3	39.	12.	23.	34.		
	486	2	180979	6	221.	120.	3	0	4	76.	9.	24.	40.	61.	
DROP	487	2	180979	6	195.	88.	3	0	0	0.					
	488	2	180979	6	143.	40.	3	0	3	45.	6.	19.	28.		
	489	2	180979	6	190.	78.	3	0	4	50.	7.	18.	32.	41.	
	490	2	180979	6	185.	67.	3	0	3	63.	8.	28.	45.		
	491	2	180979	6	182.	74.	3	0	3	62.	12.	32.	48.		
	492	2	180979	6	209.	158.	3	0	4	80.	12.	28.	53.	65.	
	493	2	180979	6	200.	89.	3	0	3	63.	10.	28.	52.		
	494	2	180979	6	123.	25.	3	0	2	32.	8.	18.			
	495	2	180979	6	124.	28.	3	0	2	34.	7.	19.			
	496	2	180979	6	158.	47.	3	0	3	52.	7.	18.	34.		
	499	2	190979	6	106.	17.	3	0	2	33.	10.	23.			
	500	2	190979	6	238.	145.	3	0	4	82.	12.	32.	58.	72.	
	501	2	190979	6	196.	82.	3	0	3	66.	15.	30.	45.		
	502	2	190979	6	184.	74.	3	0	3	60.	9.	25.	43.		
	503	2	190979	6	174.	49.	3	0	3	46.	8.	25.	39.		
	504	2	190979	6	204.	86.	3	0	4	61.	8.	20.	43.	50.	
	505	2	190979	6	155.	42.	3	0	3	44.	11.	23.	39.		
	506	2	190979	6	154.	46.	3	0	3	46.	12.	24.	37.		
	507	2	190979	6	173.	58.	3	0	3	50.	9.	19.	33.		
	508	2	190979	6	204.	90.	3	0	4	81.	12.	30.	48.	61.	
	509	2	190979	6	89.	9.	3	0	2	24.	10.	19.			
	510	2	190979	6	132.	35.	3	0	3	43.	8.	21.	33.		
	511	2	190979	6	140.	35.	3	0	3	52.	12.	26.	42.		
	512	2	190979	6	222.	123.	3	0	5	80.	10.	30.	49.	57.	72.
	513	2	190979	6	222.	115.	3	0	4	56.	9.	20.	37.	46.	
	514	2	190979	6	149.	43.	3	0	3	51.	7.	19.	33.		
	515	2	190979	6	165.	68.	3	0	3	62.	11.	29.	48.		
DROP	516	2	190979	6	166.	47.	3	0	0	0.					
	517	2	190979	6	163.	47.	3	0	3	56.	6.	21.	41.		
	518	2	190979	6	197.	84.	3	0	5	60.	9.	17.	25.	47.	57.
	519	2	190979	6	139.	37.	3	0	2	36.	9.	21.			
	522	2	200979	6	156.	43.	3	0	3	47.	8.	21.	36.		
	523	2	200979	6	156.	52.	3	0	4	59.	6.	14.	23.	41.	
	524	2	200979	6	115.	21.	3	0	2	41.	9.	24.			
	525	2	200979	6	202.	89.	3	0	4	78.	13.	33.	57.	65.	
	526	2	200979	6	176.	60.	3	0	3	49.	8.	18.	35.		
	527	2	200979	6	205.	104.	3	0	4	58.	8.	20.	39.	50.	
	528	2	200979	6	194.	87.	3	0	3	47.	10.	25.	40.		
	529	2	200979	6	164.	50.	3	0	3	41.	7.	15.	28.		
	530	2	200979	6	163.	56.	3	0	4	35.	6.	16.	21.	26.	
	531	2	200979	6	164.	54.	3	0	4	63.	7.	20.	40.	55.	
	532	2	200979	6	140.	38.	3.	0	3	47.	8.	17.	29.		
	533	2	200979	6	149.	41.	3	0	3	37.	10.	20.	28.		
	534	2	200979	6	142.	33.	3	0	3	38.	8.	15.	26.		
	535	2	200979	6	192.	87.	3	0	5	73.	10.	22.	33.	50.	64.
	536	2	200979	6	155.	45.	3	0	3	53.	8.	17.	32.		
	537	2	200979	6	194.	80.	3	0	3	49.	6.	18.	40.		
	538	2	200979	6	194.	90.	3	0	3	56.	10.	21.	37.		
	539	2	200979	6	155.	53.	3	0	3	52.	9.	25.	41.		
	540	2	200979	6	154.	49.	3	0	4	45.	7.	21.	30.	38.	
	541	2	200979	6	154.	28.	3	0	2	36.	10.	20.			

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
	542	2	200979	6	130.	26.	3	0	3	43.	6.	18.	27.		
	543	2	200979	6	215.	100.	3	0	4	61.	9.	25.	41.	52.	
	544	2	200979	6	134.	29.	3	0	2	32.	14.	23.			
	545	2	200979	6	133.	30.	3	0	3	50.	9.	20.	28.		
	546	2	200979	6	120.	23.	3	0	2	31.	11.	19.			
	547	2	210979	6	243.	74.	3	0	5	92.	10.	28.	41.	60.	80.
	548	2	250979	6	120.	20.	3	0	3	31.	10.	17.	27.		
	549	2	250979	6	162.	49.	3	0	3	47.	9.	20.	27.		
	550	2	250979	6	210.	90.	3	0	5	75.	10.	22.	30.	50.	59.
	551	2	250979	6	171.	56.	3	0	4	51.	14.	23.	36.	45.	
	552	2	250979	6	157.	38.	3	0	4	57.	10.	28.	38.	47.	
	553	2	250979	6	165.	47.	3	0	3	52.	10.	24.	39.		
	554	2	250979	6	124.	20.	3	0	3	35.	12.	18.	28.		
	555	2	260979	6	204.	92.	3	0	4	75.	9.	25.	43.	56.	
	556	2	260979	6	185.	70.	3	0	3	62.	11.	28.	45.		
	557	2	260979	6	206.	96.	3	0	4	45.	6.	12.	26.	36.	
	558	2	260979	6	220.	112.	3	0	3	54.	13.	29.	43.		
	559	2	260979	6	220.	125.	3	0	3	60.	10.	22.	39.		
	560	2	270979	6	154.	44.	3	0	3	38.	9.	18.	27.		
	561	2	270979	6	192.	74.	3	0	4	47.	8.	17.	31.	41.	
	562	2	270979	6	155.	42.	3	0	3	40.	7.	13.	24.		
DROP	563	2	270979	6	160.	51.	3	0	0	0.					
	564	2	270979	6	131.	26.	3	0	2	42.	11.	24.			
	565	2	270979	6	217.	113.	3	0	5	80.	11.	20.	29.	49.	68.
	566	2	270979	6	218.	105.	3	0	4	58.	9.	22.	38.	50.	
	567	2	270979	6	166.	51.	3	0	3	47.	8.	18.	32.		
	568	2	270979	6	167.	51.	3	0	3	55.	13.	26.	42.		
	569	2	270979	6	159.	51.	3	0	4	48.	9.	22.	32.	43.	
	570	2	270979	6	153.	41.	3	0	4	58.	11.	17.	24.	38.	
	571	2	270979	6	143.	32.	3	0	2	46.	15.	26.			
DROP	394	2	200579	9	180.	0.	3	0	4	44.	8.	16.	24.	38.	
DROP	395	2	200579	5	218.	0.	3	0	4	56.	16.	27.	39.	53.	
DROP	397	2	200579	9	93.	0.	3	0	2	24.	8.	20.			
DROP	398	2	200579	9	108.	0.	3	0	2	21.	7.	16.			
DROP	399	2	200579	9	108.	0.	3	0	2	28.	11.	23.			
DROP	401	2	200579	9	149.	0.	3	0	3	29.	7.	16.	28.		
DROP	417	2	210579	9	101.	0.	3	0	3	29.	8.	14.	25.		
DROP	418	2	210579	9	93.	0.	3	0	2	19.	8.	15.			
DROP	419	2	210579	9	102.	0.	3	0	2	23.	11.	19.			
DROP	420	2	210579	9	86.	0.	3	0	1	19.	11.				
DROP	421	2	210579	9	128.	0.	3	0	3	30.	7.	19.	28.		
DROP	422	2	210579	9	101.	0.	3	0	2	26.	6.	22.			
DROP	423	2	210579	9	108.	0.	3	0	2	25.	9.	18.			
DROP	424	2	210579	9	72.	0.	3	0	1	15.	10.				
DROP	425	2	210579	9	112.	0.	3	0	2	29.	6.	12.			
DROP	426	2	210579	9	138.	0.	3	0	3	38.	14.	26.	34.		
DROP	427	2	210579	9	111.	0.	3	0	2	18.	8.	16.			
DROP	428	2	210579	9	105.	0.	3	0	2	23.	9.	19.			
DROP	429	2	210579	9	94.	0.	3	0	2	20.	6.	15.			
DROP	430	2	210579	9	107.	0.	3	0	2	23.	9.	17.			
DROP	431	2	210579	9	104.	0.	3	0	2	22.	8.	18.			
DROP	432	2	210579	9	86.	0.	3	0	2	27.	11.	22.			
DROP	433	2	210579	9	94.	0.	3	0	2	27.	11.	22.			
DROP	436	2	220579	9	99.	0.	3	0	2	22.	9.	18.			
DROP	437	2	220579	9	125.	0.	3	0	3	31.	12.	18.	26.		

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)						
DROP	438	2	220579	9	99.	0.	3	0	2	20.	10.	17.				
DROP	456	2	220579	9	102.	0.	3	0	2	18.	9.	15.				
DROP	457	2	220579	9	94.	0.	3	0	2	24.	13.	22.				
DROP	459	2	220579	9	98.	0.	3	0	2	19.	9.	16.				
DROP	460	2	220579	9	102.	0.	3	0	2	21.	11.	19.				
DROP	461	2	220579	9	106.	0.	3	0	2	18.	7.	15.				
DROP	462	2	220579	9	94.	0.	3	0	3	26.	8.	16.	20.			
DROP	465	2	230579	9	89.	0.	3	0	2	15.	6.	13.				
DROP	466	2	230579	9	162.	0.	3	0	0	0.						
DROP	467	2	230579	9	96.	0.	3	0	2	22.	7.	17.				
DROP	468	2	230579	9	98.	0.	3	0	2	20.	10.	18.				
DROP	475	2	230579	9	108.	0.	3	0	2	19.	8.	15.				
DROP	476	2	230579	9	86.	0.	3	0	2	22.	6.	16.				
DROP	477	2	230579	9	120.	0.	3	0	3	36.	8.	18.	29.			
DROP	478	2	230579	9	102.	0.	3	0	2	22.	7.	16.				
DROP	479	2	230579	9	100.	0.	3	0	2	21.	10.	18.				
DROP	480	2	230579	9	114.	0.	3	0	2	25.	12.	22.				
DROP	481	2	230579	9	101.	0.	3	0	2	23.	9.	19.				
DROP	482	2	230579	9	102.	0.	3	0	2	21.	8.	16.				
DROP	483	2	230579	9	116.	0.	3	0	2	25.	9.	20.				
DROP	484	2	240579	9	100.	0.	3	0	2	23.	10.	20.				
DROP	485	2	70679	9	70.	0.	3	0	1	16.	11.					
	685	2	190579	9	172.	56.	1	0	4	39.	6.	14.	20.	35.		
	690	2	200579	5	200.	72.	3	0	5	69.	13.	26.	32.	45.	61.	
DROP	701	2	200579	5	229.	101.	2	2	0	0.						
	702	2	200579	5	209.	8.	3	0	5	55.	6.	19.	27.	39.	49.	
	703	2	200579	5	194.	71.	3	0	4	53.	10.	22.	37.	53.		
	705	2	80879	8	83.	11.	3	0	2	24.	9.	16.				
	706	2	80879	8	128.	26.	3	0	3	33.	8.	19.	27.			
	707	2	80879	8	87.	13.	3	0	2	28.	11.	22.				
	714	2	80879	8	125.	24.	3	0	3	36.	12.	21.	30.			
	727	2	80879	8	85.	10.	3	0	2	25.	10.	17.				
	186	2	190580	6	232.	116.	3	0	4	53.	13.	22.	37.	49.		
	187	2	190580	6	323.	320.	3	0	6	85.	9.	18.	38.	48.	60.	77.
	188	2	210580	6	211.	90.	3	0	4	49.	7.	18.	33.	49.		
	189	2	210580	6	104.	10.	3	0	2	18.	7.	13.				
	190	2	210580	6	116.	17.	3	0	3	20.	7.	14.	20.			
	191	2	210580	6	235.	113.	3	0	4	58.	9.	21.	44.	53.		
	192	2	210580	6	215.	90.	3	0	4	46.	8.	20.	32.	46.		
	193	2	210580	6	212.	90.	3	0	4	49.	8.	17.	30.	46.		
	194	2	210580	6	210.	84.	3	0	5	58.	10.	17.	25.	42.	55.	
	195	2	210580	6	236.	132.	3	0	5	66.	11.	22.	38.	53.	62.	
	196	2	210580	6	164.	40.	3	0	3	33.	8.	17.	31.			
	197	2	210580	6	185.	57.	3	0	4	36.	8.	12.	18.	31.		
	198	2	210580	6	184.	61.	3	0	4	47.	8.	20.	32.	44.		
	199	2	210580	6	232.	110.	3	0	5	59.	9.	16.	33.	51.	59.	
	200	2	210580	6	215.	102.	3	0	5	58.	8.	15.	25.	45.	52.	
	201	2	210580	6	113.	22.	3	0	3	38.	12.	25.	34.			
	202	2	210580	6	250.	137.	3	0	5	66.	11.	26.	31.	40.	59.	
	203	2	210580	6	235.	112.	3	0	5	55.	8.	18.	31.	44.	51.	
	204	2	210580	6	184.	60.	3	0	4	41.	6.	17.	29.	41.		
	205	2	210580	6	213.	94.	3	0	4	43.	9.	16.	29.	41.		
	206	2	210580	6	248.	140.	3	0	4	56.	9.	21.	38.	52.		
	207	2	210580	6	212.	82.	3	0	4	51.	12.	25.	39.	48.		
	208	2	210580	6	168.	54.	3	0	4	37.	7.	17.	21.	34.		

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)						
209	2	210580	6	225.	107.	3	0	4	56.	9.	19.	39.	52.		
210	2	210580	6	285.	242.	3	0	6	80.	10.	20.	36.	48.	61.	80.
211	2	210580	6	143.	34.	3	0	3	30.	8.	14.	24.			
212	2	210580	6	225.	95.	3	0	5	49.	11.	22.	34.	42.	49.	
213	2	210580	6	145.	28.	3	0	4	46.	10.	20.	32.	46.		
214	2	210580	6	160.	42.	3	0	3	41.	9.	20.	33.			
215	2	210580	6	160.	48.	3	0	4	40.	12.	21.	32.	40.		
216	2	210580	6	204.	74.	3	0	4	44.	9.	18.	30.	41.		
217	2	210580	6	180.	55.	3	0	4	56.	10.	23.	35.	52.		
218	2	210580	6	102.	12.	3	0	2	22.	7.	19.				
219	2	210580	6	89.	13.	3	0	1	12.	10.					
220	2	210580	6	172.	50.	3	0	4	45.	10.	20.	30.	42.		
221	2	210580	6	176.	65.	3	0	4	41.	8.	18.	28.	38.		
222	2	210580	6	188.	60.	3	0	4	53.	7.	15.	27.	47.		
223	2	210580	6	221.	105.	3	0	5	58.	7.	12.	24.	38.	54.	
224	2	210580	6	169.	49.	3	0	4	40.	8.	15.	25.	36.		
225	2	210580	6	149.	36.	3	0	3	34.	11.	20.	30.			
226	2	210580	6	169.	48.	3	0	3	46.	9.	21.	39.			
227	2	210580	6	183.	61.	3	0	4	53.	9.	21.	33.	51.		
228	2	210580	6	179.	61.	3	0	4	52.	8.	20.	31.	48.		
229	2	210580	6	125.	23.	3	0	3	33.	8.	16.	30.			
230	2	210580	6	167.	50.	3	0	3	45.	10.	21.	42.			
231	2	210580	6	204.	86.	3	0	4	49.	10.	21.	33.	46.		
232	2	210580	6	184.	56.	3	0	3	40.	7.	18.	35.			
233	2	210580	6	173.	46.	3	0	3	39.	11.	22.	36.			
234	2	210580	6	185.	62.	3	0	5	50.	6.	17.	26.	37.	48.	
235	2	210580	6	149.	35.	3	0	3	32.	7.	14.	30.			
236	2	210580	6	205.	79.	3	0	4	49.	13.	21.	32.	47.		
237	2	210580	6	155.	43.	3	0	3	36.	11.	23.	36.			
238	2	210580	6	183.	62.	3	0	4	42.	9.	16.	26.	38.		
239	2	210580	6	225.	100.	3	0	5	61.	12.	22.	38.	50.	61.	
240	2	210580	6	223.	110.	3	0	5	54.	6.	21.	30.	41.	51.	
241	2	210580	6	135.	24.	3	0	3	30.	13.	21.	29.			
242	2	210580	6	125.	25.	3	0	3	28.	12.	19.	28.			
243	2	210580	6	132.	26.	3	0	4	29.	8.	16.	22.	29.		
244	2	210580	6	124.	21.	3	0	3	24.	7.	13.	21.			
245	2	210580	6	167.	52.	3	0	4	45.	7.	19.	32.	41.		
246	2	210580	6	215.	93.	3	0	4	68.	10.	32.	48.	65.		
247	2	210580	6	183.	62.	3	0	4	47.	6.	15.	28.	41.		
248	2	210580	6	178.	59.	3	0	3	38.	8.	18.	34.			
249	2	210580	6	214.	89.	3	0	4	48.	8.	17.	29.	45.		
250	2	210580	6	185.	60.	3	0	4	47.	10.	22.	30.	43.		
251	2	210580	6	245.	129.	3	0	5	67.	7.	18.	34.	49.	62.	
252	2	210580	6	198.	78.	3	0	4	44.	8.	17.	29.	39.		
253	2	210580	6	260.	161.	3	0	4	65.	7.	21.	37.	60.		
254	2	210580	6	190.	63.	3	0	4	56.	8.	20.	36.	52.		
255	2	210580	6	171.	45.	3	0	4	34.	7.	15.	25.	34.		
256	2	40680	6	134.	24.	3	0	3	29.	9.	18.	26.			
257	2	40680	6	159.	44.	3	0	4	39.	6.	16.	25.	35.		
258	2	40680	6	260.	174.	3	0	5	72.	7.	15.	23.	43.	65.	
259	2	40680	6	127.	23.	3	0	3	26.	7.	14.	25.			
260	2	40680	6	188.	60.	3	0	4	44.	11.	20.	27.	40.		
261	2	40680	6	139.	26.	3	0	3	31.	10.	20.	31.			
262	2	40680	6	157.	44.	3	0	4	43.	9.	17.	26.	43.		
263	2	40680	6	174.	50.	3	0	3	40.	10.	21.	37.			

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
264	2	40680	6	202.	74.	3	0	4	49.	6.	16.	31.	44.	
265	2	40680	6	198.	70.	3	0	4	49.	7.	20.	29.	44.	
266	2	40680	6	94.	10.	3	0	2	21.	7.	15.			
267	2	40680	6	177.	57.	3	0	3	45.	12.	22.	40.		
268	2	40680	6	215.	92.	3	0	5	42.	8.	19.	29.	35.	42.
269	2	40680	6	188.	57.	3	0	4	38.	8.	17.	25.	34.	
270	2	100980	6	125.	24.	3	0	2	33.	6.	15.			
271	2	100980	6	193.	82.	3	0	4	61.	8.	18.	41.	52.	
272	2	100980	6	180.	75.	3	0	4	43.	7.	18.	25.	35.	
273	2	100980	6	181.	62.	3	0	3	45.	9.	23.	36.		
274	2	100980	6	145.	33.	3	0	2	35.	7.	18.			
275	2	100980	6	167.	64.	3	0	4	41.	6.	13.	22.	31.	
276	2	100980	6	282.	257.	3	0	5	86.	6.	12.	26.	46.	69.
277	2	100980	6	92.	13.	3	0	1	21.	10.				
278	2	100980	6	165.	42.	3	0	3	32.	8.	14.	20.		
279	2	100980	6	179.	66.	3	0	3	48.	10.	21.	37.		
280	2	100980	6	225.	125.	3	0	4	73.	10.	20.	30.	52.	
281	2	100980	6	169.	70.	3	0	4	58.	8.	17.	28.	41.	
282	2	100980	6	165.	51.	3	0	3	50.	7.	14.	34.		
283	2	100980	6	115.	21.	3	0	2	30.	6.	17.			
284	2	100980	6	200.	83.	3	0	3	43.	11.	20.	32.		
285	2	100980	6	173.	58.	3	0	3	42.	7.	16.	30.		
286	2	100980	6	208.	100.	3	0	4	52.	9.	18.	33.	46.	
287	2	100980	6	148.	46.	3	0	2	32.	7.	16.			
288	2	100980	6	240.	150.	3	0	4	66.	9.	22.	38.	54.	
289	2	100980	6	268.	231.	3	0	4	63.	7.	18.	32.	49.	
290	2	100980	6	273.	245.	3	0	5	90.	8.	24.	50.	71.	81.
291	2	100980	6	191.	76.	3	0	3	54.	10.	21.	41.		
292	2	100980	6	199.	79.	3	0	4	53.	8.	18.	27.	39.	
293	2	100980	6	166.	55.	3	0	3	52.	9.	19.	35.		
294	2	100980	6	195.	75.	3	0	4	44.	5.	15.	27.	37.	
295	2	100980	6	213.	103.	3	0	4	73.	9.	24.	43.	65.	
296	2	100980	6	229.	114.	3	0	4	51.	10.	19.	30.	42.	
297	2	100980	6	145.	43.	3	0	3	33.	8.	14.	22.		
298	2	100980	6	148.	43.	3	0	2	30.	8.	15.			
299	2	100980	6	190.	72.	3	0	4	63.	9.	22.	39.	50.	
300	2	100980	6	149.	42.	3	0	2	34.	9.	21.			
301	2	100980	6	210.	151.	3	0	4	63.	7.	16.	31.	52.	
302	2	100980	6	125.	27.	3	0	2	26.	7.	14.			
303	2	100980	6	135.	31.	3	0	2	36.	9.	20.			
304	2	100980	6	189.	62.	3	0	3	50.	10.	23.	35.		
305	2	100980	6	146.	34.	3	0	2	36.	10.	21.			
306	2	100980	6	220.	100.	3	0	4	61.	9.	19.	35.	52.	
307	2	100980	6	217.	96.	3	0	4	52.	9.	19.	28.	40.	
308	2	100980	6	166.	58.	3	0	3	55.	10.	24.	37.		
309	2	180980	6	159.	44.	3	0	3	33.	8.	14.	26.		
310	2	180980	6	197.	73.	3	0	3	43.	6.	14.	32.		
311	2	180980	6	128.	23.	3	0	2	25.	7.	15.			
312	2	180980	6	203.	80.	3	0	4	49.	7.	15.	25.	36.	
313	2	180980	6	231.	121.	3	0	4	58.	7.	17.	27.	45.	
314	2	180980	6	226.	111.	3	0	4	52.	7.	19.	31.	46.	
315	2	180980	6	166.	57.	3	0	3	38.	10.	19.	32.		
316	2	180980	6	161.	50.	3	0	3	27.	8.	14.	21.		
317	2	180980	6	152.	45.	3	0	3	31.	10.	15.	25.		
318	2	180980	6	222.	121.	3	0	4	47.	7.	14.	24.	37.	

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)						
	319	2	180980	6	173.	66.	3	0	3	51.	7.	20.	39.			
	320	2	230980	6	174.	52.	3	0	3	45.	6.	17.	29.			
	321	2	230980	6	174.	66.	3	0	3	53.	7.	19.	35.			
	322	2	230980	6	131.	29.	3	0	2	30.	8.	16.				
	327	2	100980	6	232.	139.	2	1	5	57.	7.	15.	28.	36.	49.	
	330	2	100680	9	204.	87.	2	1	5	54.	8.	19.	33.	40.	50.	
	331	2	100680	9	220.	98.	2	2	4	56.	11.	22.	36.	56.		
	332	2	100680	9	172.	51.	2	1	3	40.	9.	16.	35.			
	333	2	100680	9	166.	45.	1	1	5	48.	7.	14.	21.	33.	42.	
	334	2	100680	9	173.	49.	1	1	4	37.	6.	13.	22.	33.		
	335	2	100680	9	194.	70.	2	1	4	50.	6.	14.	27.	46.		
	336	2	100680	9	192.	80.	1	2	4	40.	6.	11.	21.	37.		
	337	2	100680	9	211.	96.	2	2	5	67.	8.	22.	36.	51.	62.	
	338	2	100680	9	180.	54.	1	1	4	43.	8.	17.	26.	37.		
	339	2	100680	9	225.	118.	2	2	6	71.	8.	14.	29.	46.	60.	69.
	340	2	100680	9	207.	80.	2	2	4	45.	7.	16.	26.	43.		
	341	2	100680	9	200.	75.	1	2	4	52.	8.	18.	30.	47.		
	342	2	100680	9	181.	52.	2	1	4	50.	7.	18.	29.	44.		
	343	2	100680	9	162.	37.	1	1	3	38.	9.	21.	35.			
	344	2	100680	9	172.	44.	1	1	4	39.	7.	14.	23.	35.		
	345	2	100680	9	158.	34.	2	1	4	41.	6.	11.	22.	36.		
	346	2	100680	9	155.	27.	1	1	4	34.	5.	13.	21.	32.		
	347	2	100680	9	178.	59.	1	1	4	40.	6.	13.	24.	38.		
	348	2	100680	9	166.	47.	1	1	4	50.	7.	23.	35.	46.		
	349	2	100680	9	165.	50.	2	1	4	52.	9.	21.	35.	47.		
	350	2	100680	9	166.	46.	2	1	4	35.	7.	13.	24.	32.		
	351	2	100680	9	180.	59.	2	1	4	47.	7.	14.	21.	38.		
	352	2	100680	9	177.	63.	1	1	4	32.	6.	11.	17.	28.		
	353	2	100680	9	197.	79.	2	1	5	46.	8.	15.	21.	33.	43.	
	354	2	100680	9	221.	95.	2	1	5	58.	7.	13.	23.	42.	55.	
	355	2	100680	9	211.	101.	1	2	5	43.	4.	7.	15.	27.	39.	
	356	2	100680	9	203.	75.	2	1	5	65.	6.	19.	24.	40.	57.	
	357	2	100680	9	175.	51.	1	1	4	33.	7.	13.	19.	31.		
	358	2	100680	9	188.	61.	2	1	4	53.	6.	10.	24.	43.		
	359	2	100680	9	216.	87.	2	2	5	51.	8.	19.	32.	40.	49.	
	360	2	100680	9	178.	58.	1	1	4	27.	7.	12.	20.	25.		
	361	2	100680	9	172.	51.	1	1	5	54.	7.	13.	20.	32.	49.	
	572	3	230879	6	229.	126.	3	0	6	71.	12.	20.	34.	42.	57.	64.
	573	3	230879	6	149.	40.	3	0	3	39.	8.	21.	30.			
	574	3	230879	6	117.	20.	3	0	2	31.	8.	16.				
DROP	575	3	230879	6	160.	50.	3	0	0	0.						
DROP	576	3	230879	6	200.	110.	3	0	0	0.						
	577	3	230879	6	98.	12.	3	0	2	28.	8.	16.				
	578	3	230879	6	132.	26.	3	0	3	40.	8.	17.	26.			
	579	3	230879	6	122.	28.	3	0	3	40.	12.	23.	32.			
	580	3	230879	6	98.	16.	3	0	2	24.	11.	18.				
	581	3	230879	6	101.	21.	3	0	2	33.	8.	14.				
	582	3	230879	6	117.	23.	3	0	3	27.	4.	10.	22.			
	583	3	230879	6	249.	182.	3	0	5	66.	12.	21.	38.	49.	59.	
	584	3	230879	6	180.	78.	3	0	4	54.	9.	22.	37.	46.		
	585	3	230879	6	143.	34.	3	0	3	36.	9.	16.	27.			
	586	3	230879	6	169.	62.	3	0	4	40.	9.	18.	25.	32.		
	587	3	230879	6	155.	41.	3	0	4	51.	11.	28.	38.	44.		
DROP	588	3	230879	6	160.	56.	3	0	0	0.						
	589	3	230879	6	155.	49.	3	0	4	42.	9.	15.	25.	33.		

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)						
	590	3	230879	6	114.	23.	3	0	3	30.	7.	14.	26.			
	591	3	230879	6	176.	64.	3	0	4	48.	8.	19.	32.	39.		
	592	3	230879	6	91.	13.	3	0	2	23.	9.	17.				
	593	3	230879	6	157.	46.	3	0	4	40.	6.	12.	17.	28.		
	594	3	230879	6	177.	60.	3	0	5	51.	8.	12.	19.	34.	47.	
	595	3	230879	6	158.	49.	3	0	4	50.	9.	17.	33.	41.		
	596	3	230879	6	166.	50.	3	0	3	51.	12.	26.	39.			
	597	3	230879	6	133.	33.	3	0	3	34.	11.	20.	29.			
	598	3	230879	6	150.	41.	3	0	3	49.	8.	22.	38.			
	599	3	230879	6	137.	33.	3	0	3	32.	8.	19.	27.			
	600	3	230879	6	101.	18.	3	0	2	30.	8.	17.				
	601	3	230879	6	153.	45.	3	0	3	35.	9.	19.	28.			
	602	3	240879	6	137.	29.	3	0	3	34.	7.	17.	25.			
	603	3	240879	6	164.	47.	3	0	3	39.	7.	20.	29.			
	604	3	240879	6	95.	12.	3	0	2	19.	8.	13.				
	605	3	240879	6	159.	48.	3	0	4	31.	7.	13.	19.	28.		
	606	3	240879	6	160.	46.	3	0	4	48.	7.	20.	29.	36.		
	607	3	240879	6	168.	52.	3	0	4	40.	6.	14.	23.	28.		
	608	3	240879	6	152.	39.	3	0	3	41.	10.	19.	33.			
	609	3	240879	6	112.	19.	3	0	3	31.	6.	14.	25.			
	610	3	240879	6	166.	54.	3	0	3	32.	12.	19.	26.			
	611	3	240879	6	142.	38.	3	0	3	33.	12.	19.	28.			
	612	3	240879	6	112.	20.	3	0	3	20.	5.	9.	17.			
	613	3	240879	6	135.	34.	3	0	3	37.	11.	19.	33.			
	614	3	240879	6	134.	32.	3	0	3	28.	7.	13.	23.			
	615	3	240879	6	108.	22.	3	0	2	19.	8.	14.				
	616	3	240879	6	140.	40.	3	0	3	29.	7.	13.	21.			
	617	3	240879	6	131.	35.	3	0	3	28.	10.	15.	22.			
	618	3	240879	6	109.	18.	3	0	2	24.	9.	17.				
	619	3	240879	6	117.	22.	3	0	3	28.	7.	12.	20.			
	620	3	240879	6	94.	13.	3	0	2	22.	8.	15.				
	621	3	240879	6	121.	29.	3	0	3	30.	8.	14.	26.			
	622	3	240879	6	241.	169.	3	0	6	73.	8.	15.	33.	45.	53.	65.
	623	3	240879	6	231.	163.	3	0	5	66.	10.	15.	24.	45.	57.	
	624	3	240879	6	105.	18.	3	0	2	25.	10.	19.				
	625	3	240879	6	255.	183.	3	0	6	80.	11.	18.	28.	46.	59.	74.
	626	3	240879	6	99.	17.	3	0	2	24.	9.	18.				
	627	3	240879	6	84.	10.	3	0	2	23.	10.	19.				
DROP	628	3	240879	6	158.	0.	3	0	3	32.	10.	19.	24.			
	629	3	240879	6	186.	71.	3	0	3	49.	12.	23.	34.			
	630	3	240879	6	180.	65.	3	0	3	47.	12.	18.	30.			
DROP	631	3	300879	6	88.	0.	3	0	2	18.	9.	14.				
DROP	632	3	300879	6	76.	0.	3	0	2	20.	9.	17.				
DROP	633	3	300879	6	237.	0.	3	0	5	60.	9.	15.	30.	41.	51.	
DROP	634	3	300879	6	85.	0.	3	0	2	22.	7.	17.				
DROP	635	3	300879	6	89.	0.	3	0	2	25.	6.	13.				
DROP	636	3	300879	6	88.	0.	3	0	2	22.	7.	17.				
DROP	637	3	300879	6	77.	0.	3	0	2	20.	7.	16.				
	728	3	220879	4	78.	6.	3	0	1	13.	7.					
	729	3	220879	4	65.	3.	3	0	1	10.	7.					
	730	3	220879	4	70.	5.	3	0	1	10.	7.					
	732	3	220879	4	70.	4.	3	0	2	14.	6.	12.				
	733	3	220879	4	69.	4.	3	0	2	16.	6.	12.				
	734	3	220879	4	80.	6.	3	0	2	25.	7.	15.				
	735	3	220879	4	81.	6.	3	0	2	16.	7.	13.				

PROGRAM SCALES INPUT DATA GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)				
	736	3	220879	4	89.	8.	3	0	3	23.	6.	13.	20.	
	737	3	220879	4	87.	8.	3	0	2	17.	8.	14.		
	738	3	220879	4	126.	24.	1	2	3	28.	6.	13.	22.	
	739	3	220879	4	102.	14.	1	2	3	26.	6.	15.	21.	
	740	3	220879	4	158.	45.	1	0	4	32.	6.	11.	19.	27.
	741	3	220879	4	111.	16.	2	1	3	34.	9.	15.	25.	
	742	3	220879	4	65.	3.	3	0	1	10.	7.			
	743	3	220879	4	137.	32.	3	0	3	36.	10.	20.	30.	
DROP	744	3	230879	4	71.	4.	3	0	0	0.				
	745	3	240879	4	98.	11.	3	0	2	22.	9.	17.		
	746	3	240879	4	85.	6.	3	0	2	23.	8.	20.		

1(ii)

PROGRAM SCALES INPUT DATA GROWTH OF SEA-RUN SALMON IN SPRUCE PD 1977(6+) AND LITTLE GULL LAKE 1979(5+)

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)						
747	3	240879	6	533.	827.	3	0	5	110.	5.	16.	24.	31.	87.	
96	1	190977	6	572.	1574.	1	0	6	160.	8.	20.	39.	52.	66.	122.

APPENDIX 2: BROOK TROUT RAW DATA PRINTOUT

(i) Growth of brook trout in Spruce and Headwater ponds 1977–80 . . . 58

(ii) Growth of brook trout in Little Gull Lake 1979 88

The coding format is described in:

Nickerson, S., P. M. Ryan, G. Somerton, and J. Wright. 1980. A computer program for processing fish age and growth data. Can. Tech. Rep. Fish Aquat. Sci. 964: iv + 20 p.

Lake numbers 1, 2, and 3 indicate Spruce Pond, Headwater Pond, and Little Gull Lake, respectively.

2(i)

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)				
	71	1	200777	1	198.	104.	2	0	3	24.	7.	11.	19.	
	81	1	210777	1	228.	149.	2	0	3	24.	5.	11.	19.	
	97	1	210777	1	214.	129.	2	0	3	24.	7.	11.	19.	
	32	1	190777	1	293.	366.	1	0	4	27.	7.	13.	19.	23.
	48	1	190777	1	219.	139.	2	0	3	22.	10.	16.	19.	
	124	1	210777	1	146.	48.	1	0	2	15.	6.	13.		
DROP	2	1	190777	1	220.	138.	2	0	0	0.				
DROP	3	1	190777	1	235.	149.	2	0	0	0.				
	11	1	190777	1	178.	81.	2	0	2	24.	9.	20.		
	12	1	190777	1	158.	60.	1	0	2	19.	10.	15.		
	13	1	190777	1	154.	52.	1	0	2	19.	6.	13.		
	14	1	190777	1	186.	87.	2	0	2	17.	6.	13.		
	15	1	190777	1	170.	69.	2	0	2	21.	5.	15.		
	16	1	190777	1	151.	50.	1	0	2	19.	6.	15.		
	17	1	190777	1	169.	66.	1	0	2	22.	12.	18.		
	18	1	190777	1	175.	70.	2	0	2	20.	9.	16.		
	23	1	190777	1	165.	62.	1	0	2	26.	4.	15.		
	87	1	210777	1	161.	47.	1	0	2	20.	12.	16.		
	88	1	210777	1	171.	60.	1	0	2	22.	7.	17.		
	89	1	210777	1	177.	74.	2	0	2	22.	10.	18.		
	90	1	210777	1	173.	68.	1	0	2	18.	10.	13.		
	91	1	210777	1	166.	52.	2	0	2	23.	13.	20.		
	92	1	210777	1	165.	64.	1	0	2	21.	13.	18.		
	93	1	210777	1	159.	56.	2	0	2	20.	9.	16.		
	59	1	200777	1	164.	54.	2	0	2	26.	13.	21.		
	60	1	200777	1	158.	58.	1	0	2	20.	7.	14.		
	61	1	200777	1	210.	128.	2	0	2	27.	13.	24.		
	62	1	200777	1	174.	71.	1	0	2	21.	8.	16.		
	64	1	200777	1	161.	51.	2	0	2	20.	8.	16.		
	65	1	200777	1	169.	60.	2	0	2	18.	9.	15.		
	66	1	200777	1	177.	69.	2	0	2	21.	10.	18.		
	68	1	200777	1	190.	91.	2	0	2	19.	10.	16.		
	70	1	200777	1	194.	76.	2	0	2	21.	10.	16.		
	77	1	200777	1	204.	122.	2	0	2	21.	10.	17.		
	79	1	210777	1	236.	180.	1	0	2	27.	8.	21.		
	80	1	210777	1	165.	59.	1	0	2	22.	7.	17.		
	94	1	210777	1	163.	57.	2	0	2	17.	6.	13.		
	95	1	210777	1	165.	55.	2	0	2	17.	7.	14.		
	96	1	210777	1	159.	52.	1	0	2	21.	11.	15.		
	98	1	210777	1	164.	55.	2	0	2	16.	7.	12.		
	99	1	210777	1	151.	47.	1	0	2	18.	12.	16.		
	100	1	210777	1	193.	94.	2	0	2	21.	10.	18.		
	101	1	210777	1	174.	69.	2	0	2	22.	9.	17.		
	38	1	190777	1	204.	118.	1	0	2	18.	6.	16.		
	46	1	190777	1	155.	58.	2	0	2	17.	7.	13.		
	49	1	190777	1	178.	85.	1	0	2	22.	6.	16.		
	121	1	210777	1	214.	125.	2	0	3	25.	7.	14.	20.	
	53	1	200777	1	199.	116.	1	0	3	24.	6.	13.	20.	
	56	1	200777	1	216.	142.	2	0	3	25.	7.	12.	20.	
	110	1	210777	1	223.	145.	1	0	4	28.	6.	16.	20.	26.
	111	1	210777	1	257.	213.	2	0	4	27.	6.	11.	20.	25.
	113	1	210777	1	220.	139.	1	0	3	29.	7.	13.	20.	
	51	1	200777	1	240.	205.	2	0	4	33.	6.	12.	20.	25.
	123	1	210777	1	223.	160.	2	0	3	24.	10.	16.	21.	
	125	1	210777	1	244.	169.	2	0	4	27.	7.	13.	21.	25.

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)				
7	1	190777	1	207.	136.	1	0	3	26.	6.	13.	21.	
74	1	200777	1	206.	111.	1	0	3	26.	8.	13.	21.	
102	1	210777	1	180.	73.	1	0	3	23.	10.	15.	21.	
104	1	210777	1	223.	140.	1	0	3	24.	6.	16.	21.	
36	1	190777	1	209.	123.	1	0	3	25.	7.	16.	21.	
37	1	190777	1	285.	376.	1	0	4	30.	9.	14.	21.	27.
42	1	190777	1	300.	327.	2	0	4	34.	9.	15.	21.	27.
4	1	190777	1	223.	138.	2	0	3	27.	10.	16.	22.	
8	1	190777	1	188.	82.	2	0	3	30.	6.	14.	22.	
21	1	190777	1	229.	175.	2	0	3	26.	6.	12.	22.	
83	1	210777	1	251.	201.	2	0	4	30.	7.	16.	22.	25.
54	1	200777	1	219.	136.	2	0	3	27.	9.	16.	22.	
73	1	200777	1	236.	152.	1	0	3	26.	6.	15.	22.	
75	1	200777	1	220.	147.	2	0	3	25.	6.	13.	22.	
106	1	210777	1	213.	135.	2	0	3	25.	5.	15.	22.	
119	1	210777	1	196.	110.	2	0	3	28.	6.	15.	22.	
122	1	210777	1	220.	131.	2	0	3	25.	9.	14.	23.	
10	1	190777	1	152.	47.	2	0	3	25.	10.	17.	23.	
31	1	190777	1	218.	139.	2	0	3	20.	6.	9.	13.	
58	1	200777	1	335.	534.	1	0	4	35.	7.	16.	23.	30.
69	1	200777	1	258.	237.	1	0	4	35.	7.	15.	23.	30.
76	1	200777	1	237.	180.	2	0	3	26.	12.	20.	23.	
112	1	210777	1	216.	143.	2	0	3	31.	6.	12.	23.	
117	1	210777	1	217.	139.	2	0	3	29.	9.	17.	23.	
50	1	200777	1	200.	118.	1	0	3	17.	4.	8.	13.	
5	1	190777	1	215.	147.	2	0	3	27.	7.	17.	24.	
6	1	190777	1	245.	204.	2	0	3	27.	7.	16.	24.	
24	1	190777	1	254.	126.	1	0	4	31.	7.	16.	24.	28.
78	1	200777	1	229.	146.	1	0	3	27.	8.	17.	24.	
44	1	190777	1	223.	143.	2	0	4	22.	7.	10.	14.	16.
63	1	200777	1	180.	74.	2	0	3	20.	5.	9.	15.	
107	1	210777	1	246.	203.	2	0	4	22.	5.	12.	15.	20.
108	1	210777	1	236.	180.	2	0	4	25.	4.	10.	15.	21.
39	1	190777	1	230.	155.	2	0	4	23.	5.	10.	15.	20.
43	1	190777	1	267.	246.	2	0	4	33.	7.	18.	25.	30.
45	1	190777	1	257.	239.	2	0	4	23.	5.	10.	15.	18.
47	1	190777	1	235.	177.	1	0	4	25.	5.	12.	15.	20.
120	1	210777	1	212.	137.	2	0	3	21.	5.	10.	16.	
127	1	270677	5	225.	134.	2	0	4	24.	6.	12.	16.	21.
19	1	190777	1	204.	120.	1	0	3	21.	6.	11.	16.	
29	1	190777	1	246.	193.	2	0	4	24.	4.	10.	16.	21.
84	1	210777	1	261.	247.	2	0	4	25.	5.	11.	16.	20.
85	1	210777	1	222.	147.	1	0	4	31.	6.	12.	16.	24.
86	1	210777	1	225.	144.	2	0	3	21.	6.	11.	16.	
52	1	200777	1	206.	130.	2	0	3	29.	7.	16.	26.	
55	1	200777	1	257.	237.	2	0	3	35.	7.	14.	26.	
57	1	200777	1	266.	267.	1	0	3	33.	8.	14.	26.	
103	1	210777	1	247.	202.	2	0	4	28.	6.	12.	16.	24.
109	1	210777	1	247.	199.	1	0	4	31.	7.	13.	16.	26.
116	1	210777	1	206.	110.	2	0	3	22.	4.	9.	16.	
41	1	190777	1	205.	123.	2	0	3	18.	7.	11.	16.	
1	1	180777	6	236.	136.	2	0	4	26.	7.	12.	17.	21.
9	1	190777	1	210.	127.	2	0	3	22.	4.	9.	17.	
20	1	190777	1	225.	140.	2	0	4	28.	7.	13.	17.	23.
27	1	190777	1	216.	137.	2	0	3	24.	7.	11.	17.	

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
	28	1	190777	1	210.	117.	2	0	3	22.	5.	10.	17.		
	67	1	200777	1	231.	162.	1	0	3	21.	6.	11.	17.		
	105	1	210777	1	237.	169.	2	0	4	26.	5.	11.	17.	22.	
	114	1	210777	1	204.	184.	2	0	3	31.	9.	16.	27.		
	115	1	210777	1	242.	187.	2	0	4	27.	7.	14.	17.	22.	
	118	1	210777	1	212.	136.	1	0	3	25.	6.	10.	17.		
	34	1	190777	1	215.	146.	1	0	3	20.	7.	12.	17.		
	35	1	190777	1	238.	193.	2	0	3	24.	7.	11.	17.		
	129	1	270677	5	241.	163.	2	0	4	28.	5.	12.	18.	24.	
	22	1	190777	1	223.	151.	2	0	3	23.	7.	11.	18.		
	25	1	190777	1	212.	152.	1	0	3	22.	6.	10.	18.		
	26	1	190777	1	198.	104.	1	0	3	23.	7.	12.	18.		
	30	1	190777	1	267.	284.	1	0	4	26.	6.	13.	18.	23.	
	82	1	210777	1	210.	136.	2	0	4	29.	6.	13.	18.	24.	
	72	1	200777	1	207.	119.	2	0	3	21.	6.	13.	18.		
	33	1	190777	1	263.	120.	1	0	4	28.	8.	14.	18.	23.	
	40	1	190777	1	310.	182.	1	0	5	38.	7.	11.	18.	24.	34.
	126	1	270677	5	170.	62.	1	0	2	16.	8.	14.			
	128	1	270677	5	225.	148.	2	0	3	24.	7.	13.	19.		
	1	1	190578	6	103.	8.	3	0	1	9.	8.				
	2	1	190578	6	102.	10.	3	0	1	11.	8.				
	3	1	180578	6	130.	27.	3	0	2	15.	8.	15.			
DROP	4	1	230578	6	327.	0.	3	0	6	30.	3.	9.	14.	19.	24. 28.
DROP	5	1	230578	6	298.	0.	3	0	5	30.	6.	12.	17.	24.	27.
DROP	6	1	230578	6	280.	0.	3	0	5	27.	3.	11.	18.	21.	26.
	7	1	180578	6	165.	48.	3	0	3	23.	5.	13.	21.		
	8	1	180578	6	164.	45.	3	0	3	19.	6.	12.	16.		
	9	1	180578	6	168.	53.	3	0	3	21.	4.	10.	17.		
	10	1	180578	6	166.	49.	3	0	3	22.	7.	14.	20.		
	11	1	180578	6	165.	56.	3	0	2	17.	4.	10.			
	1	1	180578	6	162.	45.	3	0	3	21.	7.	12.	17.		
	13	1	180578	6	162.	50.	3	0	2	16.	4.	11.			
	14	1	180578	6	204.	85.	3	0	3	20.	7.	11.	16.		
	15	1	180578	6	205.	78.	3	0	3	21.	8.	16.	21.		
	16	1	180578	6	200.	90.	3	0	3	26.	6.	17.	26.		
	17	1	180578	6	202.	78.	3	0	3	26.	7.	14.	23.		
	18	1	180578	6	202.	80.	3	0	3	23.	6.	14.	20.		
	19	1	180578	6	183.	66.	3	0	3	20.	7.	15.	20.		
	20	1	180578	6	185.	77.	3	0	3	20.	6.	11.	17.		
	21	1	180578	6	186.	78.	3	0	3	22.	8.	13.	19.		
	22	1	180578	6	218.	122.	3	0	3	19.	6.	10.	15.		
	23	1	180578	6	210.	95.	3	0	3	22.	6.	13.	19.		
	24	1	180578	6	214.	116.	3	0	3	25.	7.	14.	23.		
	25	1	180578	6	214.	102.	3	0	3	30.	7.	16.	26.		
	26	1	180578	6	215.	101.	3	0	3	29.	11.	19.	26.		
	27	1	180578	6	192.	77.	3	0	3	20.	4.	12.	18.		
	28	1	180578	6	197.	85.	3	0	3	20.	4.	11.	17.		
	29	1	180578	6	197.	77.	3	0	3	23.	5.	12.	20.		
	30	1	180578	6	195.	77.	3	0	3	21.	6.	13.	19.		
	31	1	180578	6	196.	104.	3	0	3	23.	7.	13.	20.		
	32	1	190578	6	234.	146.	2	0	4	30.	6.	11.	20.	26.	
	33	1	190578	6	235.	125.	3	0	4	33.	5.	10.	17.	22.	
	34	1	190578	6	238.	127.	3	0	4	28.	6.	13.	22.	25.	
	35	1	190578	6	221.	102.	3	0	3	24.	6.	13.	19.		
	36	1	180578	6	228.	126.	3	0	3	24.	8.	17.	22.		

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
	37	1	180578	6	224.	115.	3	0	3	26.	4.	10.	20.		
	38	1	180578	6	220.	103.	3	0	3	28.	3.	8.	15.		
	39	1	180578	6	225.	105.	3	0	3	33.	8.	17.	27.		
	40	1	180578	6	224.	121.	3	0	3	23.	6.	15.	21.		
	41	1	190578	6	247.	147.	3	0	4	26.	4.	11.	17.	22.	
	42	1	190578	6	245.	141.	3	0	4	29.	7.	12.	18.	26.	
	43	1	200578	6	243.	155.	3	0	3	20.	5.	12.	16.		
	44	1	200578	6	241.	154.	3	0	3	32.	7.	19.	28.		
	45	1	180578	6	240.	150.	3	0	4	32.	7.	11.	20.	29.	
	46	1	200578	6	290.	260.	3	0	4	31.	7.	16.	21.	28.	
	47	1	180578	6	294.	272.	3	0	5	27.	6.	11.	16.	20.	25.
	48	1	200578	6	273.	234.	3	0	4	28.	5.	10.	20.	25.	
DROP	49	1	180578	6	272.	0.	3	0	4	28.	6.	11.	18.	24.	
DROP	50	1	210578	6	275.	0.	3	0	4	31.	7.	12.	17.	25.	
DROP	51	1	200578	6	251.	0.	3	0	4	23.	4.	10.	16.	20.	
	52	1	180578	6	258.	210.	3	0	4	30.	6.	10.	20.	26.	
	53	1	180578	6	255.	186.	3	0	4	30.	9.	15.	20.	25.	
	54	1	180578	6	250.	103.	3	0	4	28.	7.	11.	17.	24.	
	55	1	180578	6	286.	275.	3	0	4	31.	7.	13.	19.	24.	
	56	1	180578	6	301.	348.	3	0	5	35.	6.	14.	22.	26.	32.
	57	1	180578	6	269.	244.	3	0	4	29.	5.	10.	20.	25.	
	58	1	190578	6	220.	127.	3	0	3	30.	5.	11.	26.		
	59	1	200578	6	260.	185.	3	0	4	25.	6.	14.	19.	24.	
DROP	60	1	200578	6	260.	0.	3	0	4	31.	6.	13.	25.	29.	
	61	1	200578	6	263.	188.	3	0	4	25.	4.	9.	15.	22.	
	62	1	180578	6	238.	135.	3	0	3	20.	5.	10.	15.		
DROP	63	1	200578	6	238.	0.	3	0	3	27.	6.	12.	20.		
	64	1	180578	6	145.	32.	3	0	2	19.	7.	16.			
	65	1	180578	6	140.	34.	3	0	2	19.	7.	12.			
	66	1	180578	6	146.	36.	3	0	2	14.	7.	12.			
	67	1	180578	6	143.	35.	3	0	2	16.	6.	14.			
	68	1	180578	6	143.	37.	3	0	2	13.	6.	13.			
	69	1	180578	6	142.	35.	3	0	2	14.	6.	12.			
	70	1	180578	6	147.	36.	3	0	2	17.	8.	13.			
	71	1	180578	6	145.	36.	3	0	2	18.	8.	15.			
	72	1	180578	6	142.	33.	3	0	2	15.	6.	12.			
	73	1	180578	6	138.	30.	3	0	2	17.	7.	13.			
	74	1	180578	6	136.	30.	3	0	2	18.	6.	15.			
	75	1	180578	6	137.	31.	3	0	2	17.	6.	15.			
	76	1	180578	6	134.	30.	3	0	2	14.	5.	12.			
	77	1	180578	6	130.	27.	3	0	2	16.	7.	13.			
	78	1	180578	6	134.	29.	3	0	2	20.	7.	17.			
	79	1	180578	6	135.	29.	3	0	2	16.	7.	12.			
	80	1	180578	6	138.	33.	3	0	2	17.	6.	14.			
	81	1	190578	6	114.	11.	3	0	2	10.	5.	10.			
DROP	82	1	190578	6	111.	13.	3	0	0	0.					
	83	1	180578	6	112.	20.	3	0	2	11.	6.	9.			
	84	1	180578	6	110.	18.	3	0	1	9.	7.				
	85	1	190578	6	101.	8.	3	0	1	10.	7.				
	86	1	180578	6	107.	19.	3	0	1	16.	10.				
	87	1	190578	6	96.	10.	3	0	1	10.	6.				
	88	1	190578	6	95.	8.	3	0	1	12.	7.				
DROP	89	1	190578	6	90.	0.	3	0	1	9.	5.				
	90	1	180578	6	90.	13.	3	0	1	12.	8.				
DROP	91	1	190578	6	72.	0.	3	0	1	9.	6.				

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)			
	92	1	180578	6	170.	60.	3	0	2	18.	8.	16.	
DROP	93	1	190578	6	78.	0.	3	0	1	8.	6.		
DROP	94	1	190578	6	76.	0.	3	0	1	9.	6.		
	95	1	180578	6	79.	6.	3	0	1	9.	6.		
	96	1	180578	6	122.	20.	3	0	1	13.	7.		
	97	1	180578	6	129.	28.	3	0	1	10.	8.		
	98	1	180578	6	125.	27.	3	0	2	19.	7.	19.	
	99	1	180578	6	121.	22.	3	0	1	14.	11.		
	100	1	180578	6	150.	42.	3	0	2	19.	10.	19.	
	101	1	180578	6	157.	45.	3	0	2	18.	10.	18.	
	102	1	180578	6	150.	41.	3	0	2	15.	7.	15.	
	103	1	180578	6	153.	40.	3	0	2	18.	11.	16.	
	104	1	180578	6	150.	22.	3	0	2	17.	8.	17.	
	105	1	180578	6	177.	59.	3	0	2	20.	10.	17.	
	106	1	180578	6	170.	56.	3	0	3	22.	6.	9.	18.
	107	1	180578	6	172.	59.	3	0	2	17.	6.	14.	
	108	1	180578	6	172.	66.	3	0	2	19.	9.	16.	
	109	1	180578	6	176.	64.	3	0	2	17.	5.	12.	
	110	1	180578	6	170.	51.	3	0	2	20.	11.	17.	
	111	1	190578	6	82.	6.	3	0	1	10.	4.		
DROP	112	1	190578	6	89.	0.	3	0	1	9.	5.		
DROP	113	1	190578	6	82.	0.	3	0	1	10.	5.		
DROP	114	1	190578	6	86.	0.	3	0	1	10.	4.		
	115	1	180578	6	84.	11.	3	0	1	6.	4.		
	116	1	180578	6	86.	10.	3	0	1	9.	6.		
	117	1	180578	6	85.	10.	3	0	1	8.	3.		
	118	1	180578	6	83.	13.	3	0	1	7.	3.		
	119	1	180578	6	88.	8.	3	0	1	10.	6.		
	120	1	180578	6	80.	8.	3	0	1	10.	4.		
DROP	121	1	180578	6	80.	0.	3	0	1	9.	4.		
	122	1	180578	6	142.	34.	3	0	2	18.	6.	15.	
	123	1	180578	6	141.	34.	3	0	2	17.	6.	16.	
	124	1	180578	6	145.	38.	3	0	2	16.	6.	13.	
	125	1	180578	6	142.	35.	3	0	2	14.	5.	11.	
	126	1	180578	6	140.	32.	3	0	2	14.	5.	11.	
DROP	127	1	180578	6	86.	0.	3	0	1	10.	4.		
	128	1	180978	6	89.	14.	3	0	1	9.	6.		
	129	1	180978	6	144.	35.	3	0	2	15.	4.	9.	
	130	1	180978	6	187.	83.	3	0	2	18.	7.	13.	
	131	1	180978	6	196.	94.	3	0	2	24.	9.	18.	
	132	1	180978	6	188.	72.	3	0	2	22.	10.	14.	
	133	1	180978	6	156.	48.	3	0	2	17.	8.	13.	
	134	1	180978	6	210.	100.	3	0	2	24.	6.	16.	
	135	1	180978	6	178.	68.	3	0	2	19.	5.	13.	
	136	1	180978	6	177.	72.	3	0	2	22.	6.	14.	
	137	1	180978	6	218.	125.	3	0	3	28.	7.	11.	18.
DROP	138	1	180978	6	282.	251.	3	0	0	0.			
	139	1	180978	6	190.	74.	3	0	3	21.	7.	12.	19.
	140	1	180978	6	161.	50.	3	0	2	16.	7.	13.	
	141	1	180978	6	185.	80.	3	0	2	26.	8.	21.	
	142	1	180978	6	178.	71.	3	0	2	20.	6.	13.	
	143	1	180978	6	177.	64.	3	0	2	17.	5.	12.	
	144	1	180978	6	127.	24.	3	0	2	14.	3.	8.	
	145	1	180978	6	100.	13.	3	0	1	11.	6.		
	146	1	180978	6	210.	118.	3	0	2	19.	6.	11.	

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)				
147	1	18097A	6	255.	180.	3	0	4	33.	6.	9.	21.	28.
148	1	18097A	6	143.	38.	3	0	2	16.	5.	10.		
149	1	18097A	6	170.	64.	3	0	2	19.	8.	14.		
150	1	18097A	6	169.	53.	3	0	2	21.	6.	12.		
151	1	18097A	6	160.	48.	3	0	2	19.	6.	13.		
152	1	18097A	6	191.	92.	3	0	2	18.	7.	13.		
153	1	18097A	6	175.	69.	3	0	2	19.	9.	14.		
154	1	18097A	6	223.	137.	3	0	3	22.	7.	12.	18.	
155	1	18097A	6	219.	136.	3	0	3	25.	8.	12.	19.	
156	1	18097A	6	245.	158.	3	0	3	26.	8.	12.	18.	
157	1	18097A	6	187.	73.	3	0	2	20.	7.	16.		
158	1	18097A	6	98.	16.	3	0	1	14.	6.			
159	1	18097A	6	126.	24.	3	0	1	13.	7.			
160	1	18097A	6	105.	8.	3	0	1	10.	8.			
161	1	15097A	6	106.	13.	3	0	1	10.	5.			
162	1	15097A	6	171.	58.	3	0	2	20.	6.	14.		
163	1	15097A	6	221.	129.	3	0	3	26.	6.	9.	18.	
164	1	15097A	6	240.	144.	3	0	3	21.	6.	10.	14.	
165	1	15097A	6	152.	47.	3	0	2	17.	6.	13.		
166	1	15097A	6	227.	123.	3	0	3	26.	5.	9.	17.	
167	1	15097A	6	214.	110.	3	0	3	26.	7.	16.	22.	
168	1	15097A	6	237.	167.	3	0	2	29.	10.	24.		
169	1	15097A	6	225.	136.	3	0	3	24.	5.	10.	20.	
170	1	15097A	6	103.	13.	3	0	1	11.	4.			
171	1	15097A	6	102.	14.	3	0	1	12.	5.			
172	1	15097A	6	133.	26.	3	0	2	15.	6.	11.		
173	1	15097A	6	206.	92.	3	0	2	24.	5.	15.		
174	1	20097A	6	164.	50.	3	0	2	17.	7.	13.		
175	1	18097A	6	171.	58.	3	0	2	21.	8.	15.		
176	1	18097A	6	270.	204.	3	0	4	35.	8.	13.	23.	27.
177	1	18097A	6	181.	68.	3	0	2	20.	7.	16.		
178	1	18097A	6	104.	18.	3	0	1	11.	6.			
179	1	18097A	6	104.	18.	3	0	1	11.	5.			
180	1	18097A	6	228.	115.	3	0	3	29.	4.	13.	23.	
181	1	18097A	6	193.	90.	3	0	2	25.	10.	20.		
182	1	18097A	6	211.	106.	3	0	3	26.	6.	13.	21.	
183	1	18097A	6	185.	78.	3	0	2	17.	6.	12.		
184	1	15097A	6	175.	60.	3	0	3	15.	5.	7.	10.	
185	1	15097A	6	186.	66.	3	0	2	19.	6.	12.		
186	1	15097A	6	197.	83.	3	0	3	23.	5.	13.	19.	
187	1	15097A	6	185.	74.	3	0	3	20.	6.	9.	16.	
188	1	20097A	6	203.	94.	3	0	2	17.	7.	11.		
189	1	20097A	6	171.	54.	3	0	2	17.	4.	12.		
190	1	20097A	6	106.	15.	3	0	1	10.	5.			
191	1	20097A	6	145.	37.	3	0	2	15.	5.	11.		
192	1	20097A	6	117.	19.	3	0	1	12.	7.			
193	1	20097A	6	145.	36.	3	0	2	20.	5.	13.		
194	1	18097A	6	94.	12.	3	0	1	13.	7.			
195	1	18097A	6	120.	21.	3	0	1	16.	8.			
196	1	20097A	6	208.	105.	3	0	2	20.	5.	12.		
197	1	20097A	6	243.	166.	3	0	3	30.	5.	14.	24.	
198	1	20097A	6	244.	169.	3	0	3	23.	4.	11.	18.	
199	1	20097A	6	234.	138.	3	0	3	22.	7.	12.	17.	
200	1	18097A	6	127.	24.	3	0	1	13.	8.			
201	1	18097A	6	218.	120.	3	0	3	25.	4.	13.	19.	

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
	202	1	18097A	6	208.	106.	3	0	2	22.	4.	13.			
	203	1	14097A	6	190.	82.	3	0	2	17.	6.	11.			
	204	1	14097A	6	185.	81.	3	0	2	22.	10.	19.			
	205	1	14097A	6	205.	102.	3	0	3	25.	6.	13.	16.		
	206	1	14097A	6	135.	33.	3	0	2	18.	9.	15.			
	207	1	14097A	6	202.	92.	3	0	2	26.	6.	19.			
	208	1	14097A	6	182.	70.	3	0	2	22.	6.	15.			
	209	1	14097A	6	173.	70.	3	0	2	22.	7.	15.			
	210	1	14097A	6	100.	17.	3	0	1	10.	5.				
	211	1	14097A	6	131.	28.	3	0	2	15.	5.	10.			
	212	1	14097A	6	141.	35.	3	0	2	16.	5.	10.			
	213	1	14097A	6	163.	53.	3	0	2	26.	11.	19.			
	214	1	14097A	6	152.	48.	3	0	2	21.	5.	14.			
	215	1	14097A	6	141.	37.	3	0	2	12.	3.	8.			
	216	1	14097A	6	122.	24.	3	0	2	14.	9.	14.			
	217	1	14097A	6	119.	24.	3	0	1	12.	5.				
	218	1	14097A	6	80.	12.	3	0	1	13.	5.				
	219	1	14097A	6	124.	24.	3	0	1	14.	8.				
	220	1	14097A	6	93.	7.	3	0	1	12.	8.				
	221	1	14097A	6	98.	10.	3	0	1	11.	5.				
	222	1	14097A	6	110.	15.	3	0	1	10.	6.				
	223	1	14097A	6	120.	12.	3	0	1	13.	6.				
	224	1	14097A	6	280.	221.	3	0	5	28.	4.	9.	14.	18.	24.
	225	1	14097A	6	107.	15.	3	0	1	12.	7.				
	226	1	14097A	6	129.	19.	3	0	2	15.	4.	10.			
	227	1	14097A	6	134.	23.	3	0	2	17.	6.	11.			
	228	1	14097A	6	96.	11.	3	0	1	10.	6.				
	229	1	14097A	6	127.	23.	3	0	1	19.	9.				
	230	1	14097A	6	130.	27.	3	0	2	13.	6.	9.			
	231	1	14097A	6	240.	174.	3	0	4	26.	6.	11.	17.	22.	
	232	1	14097A	6	213.	100.	3	0	3	25.	3.	12.	23.		
	233	1	14097A	6	265.	215.	3	0	3	25.	9.	14.	19.		
	234	1	14097A	6	235.	152.	3	0	3	26.	6.	10.	17.		
	235	1	14097A	6	216.	130.	3	0	3	20.	5.	8.	15.		
	236	1	14097A	6	198.	90.	3	0	3	19.	6.	10.	16.		
	237	1	14097A	6	183.	75.	3	0	2	13.	4.	7.			
	238	1	14097A	6	180.	75.	3	0	2	20.	8.	16.			
	239	1	14097A	6	137.	30.	3	0	2	16.	5.	10.			
	240	1	14097A	6	119.	21.	3	0	1	14.	8.				
	241	1	14097A	6	115.	20.	3	0	1	16.	8.				
	362	1	5107A	6	83.	4.	3	0	1	12.	7.				
	363	1	5107A	6	232.	148.	3	0	3	24.	7.	12.	19.		
	364	1	2107A	6	75.	6.	3	0	1	9.	5.				
	365	1	27097A	6	85.	9.	3	0	1	10.	5.				
	366	1	26097A	6	253.	185.	3	0	3	28.	8.	14.	20.		
	367	1	2107A	6	302.	276.	3	0	5	34.	7.	13.	17.	23.	29.
DROP	360	1	3087A	8	45.	0.	3	0	0	5.					
DROP	361	1	22087A	7	41.	0.	3	1	0	7.					
	1	1	180579	6	110.	15.	3	0	2	14.	6.	12.			
	2	1	180579	6	161.	45.	3	0	2	21.	11.	19.			
	3	1	180579	6	115.	20.	3	0	2	14.	8.	13.			
	4	1	180579	6	170.	59.	3	0	2	17.	9.	15.			
	5	1	180579	6	211.	94.	3	0	3	21.	5.	12.	20.		
	6	1	180579	6	135.	30.	3	0	2	17.	7.	14.			
	7	1	180579	6	109.	19.	3	0	2	13.	3.	10.			

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)			
8	1	180579	6	97.	10.	3	0	2	14.	7.	12.	
9	1	180579	6	137.	29.	3	0	2	14.	8.	12.	
10	1	180579	6	142.	34.	3	0	2	15.	6.	12.	
11	1	180579	6	86.	9.	3	0	1	12.	7.		
12	1	180579	6	122.	22.	3	0	2	12.	5.	10.	
13	1	180579	6	180.	63.	3	0	3	24.	6.	13.	21.
14	1	180579	6	122.	25.	3	0	2	12.	6.	12.	
15	1	180579	6	198.	98.	3	0	3	19.	6.	14.	18.
16	1	180579	6	120.	25.	3	0	2	12.	5.	11.	
17	1	180579	6	120.	20.	3	0	2	12.	6.	11.	
18	1	180579	6	127.	23.	3	0	2	13.	7.	11.	
19	1	180579	6	206.	91.	3	0	3	23.	7.	14.	20.
20	1	180579	6	78.	8.	3	0	1	9.	6.		
21	1	180579	6	186.	72.	3	0	3	28.	5.	16.	24.
22	1	180579	6	185.	61.	3	0	3	22.	6.	11.	19.
23	1	180579	6	129.	26.	3	0	2	14.	7.	12.	
24	1	180579	6	115.	19.	3	0	2	14.	6.	11.	
25	1	180579	6	187.	82.	3	0	2	20.	9.	18.	
26	1	180579	6	185.	78.	3	0	2	19.	9.	15.	
27	1	180579	6	204.	96.	3	0	3	25.	8.	14.	23.
28	1	180579	6	184.	69.	3	0	3	20.	6.	11.	17.
29	1	180579	6	131.	22.	3	0	2	14.	8.	12.	
30	1	180579	6	177.	62.	3	0	3	22.	8.	14.	18.
31	1	180579	6	187.	71.	3	0	3	20.	4.	14.	20.
32	1	180579	6	129.	22.	3	0	2	11.	5.	9.	
33	1	180579	6	125.	26.	3	0	2	14.	5.	11.	
34	1	180579	6	114.	21.	3	0	2	15.	8.	14.	
35	1	180579	6	88.	8.	3	0	1	8.	6.		
36	1	180579	6	101.	13.	3	0	1	9.	7.		
37	1	180579	6	196.	84.	3	0	3	25.	6.	13.	21.
38	1	180579	6	104.	14.	3	0	1	10.	7.		
39	1	180579	6	197.	86.	3	0	3	21.	5.	12.	18.
40	1	180579	6	111.	15.	3	0	2	13.	5.	11.	
41	1	180579	6	103.	14.	3	0	1	8.	5.		
42	1	180579	6	92.	12.	3	0	1	10.	7.		
43	1	180579	6	106.	17.	3	0	1	9.	6.		
44	1	180579	6	106.	17.	3	0	1	11.	8.		
45	1	180579	6	105.	15.	3	0	2	11.	4.	9.	
46	1	180579	6	142.	36.	3	0	2	13.	5.	10.	
47	1	180579	6	154.	39.	3	0	2	17.	8.	14.	
48	1	180579	6	145.	31.	3	0	2	18.	9.	16.	
49	1	180579	6	145.	39.	3	0	2	14.	5.	12.	
50	1	180579	6	78.	7.	3	0	1	12.	8.		
51	1	180579	6	233.	126.	3	0	3	28.	10.	20.	25.
52	1	180579	6	125.	21.	3	0	2	13.	4.	11.	
53	1	180579	6	137.	33.	3	0	2	16.	8.	13.	
54	1	180579	6	136.	33.	3	0	2	15.	7.	13.	
55	1	180579	6	159.	50.	3	0	2	14.	6.	10.	
56	1	180579	6	80.	7.	3	0	1	10.	7.		
57	1	180579	6	110.	18.	3	0	2	12.	5.	10.	
58	1	180579	6	165.	54.	3	0	2	18.	9.	15.	
59	1	180579	6	206.	104.	3	0	3	22.	7.	15.	20.
60	1	180579	6	164.	57.	3	0	3	23.	9.	16.	20.
61	1	180579	6	154.	39.	3	0	2	17.	7.	15.	
62	1	180579	6	142.	32.	3	0	2	18.	7.	14.	

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)				
	63	1	180579	6	162.	53.	3	0	2	25.	10.	18.		
	64	1	180579	6	88.	8.	3	0	1	8.	5.			
	65	1	180579	6	200.	82.	3	0	3	21.	6.	14.	18.	
	66	1	180579	6	167.	60.	3	0	2	18.	9.	15.		
	67	1	180579	6	124.	25.	3	0	2	14.	7.	12.		
	68	1	180579	6	181.	76.	3	0	4	21.	5.	9.	13.	19.
	69	1	180579	6	213.	118.	3	0	3	18.	6.	12.	15.	
	70	1	180579	6	279.	175.	3	0	4	27.	6.	11.	18.	24.
	71	1	180579	6	173.	55.	3	0	2	19.	9.	15.		
	72	1	180579	6	182.	65.	3	0	3	23.	6.	13.	19.	
	73	1	180579	6	243.	132.	3	0	3	22.	7.	14.	19.	
	74	1	180579	6	243.	172.	3	0	3	22.	5.	10.	19.	
	75	1	180579	6	216.	118.	3	0	3	27.	5.	15.	23.	
	76	1	180579	6	116.	20.	3	0	2	14.	7.	12.		
	77	1	180579	6	119.	19.	3	0	2	15.	8.	12.		
	78	1	180579	6	167.	51.	3	0	2	16.	7.	13.		
	79	1	180579	6	169.	53.	3	0	2	21.	9.	18.		
	80	1	180579	6	143.	31.	3	0	2	16.	8.	13.		
	81	1	180579	6	112.	17.	3	0	2	11.	4.	9.		
	82	1	180579	6	130.	27.	3	0	2	15.	6.	12.		
	83	1	180579	6	138.	27.	3	0	2	17.	6.	13.		
	84	1	180579	6	138.	29.	3	0	2	14.	7.	13.		
	85	1	180579	6	139.	31.	3	0	2	14.	7.	12.		
	86	1	180579	6	86.	8.	3	0	1	8.	6.			
	87	1	180579	6	170.	60.	3	0	2	14.	7.	12.		
	88	1	180579	6	95.	9.	3	0	1	13.	10.			
	89	1	180579	6	195.	85.	3	0	2	25.	11.	18.		
	90	1	180579	6	160.	46.	3	0	2	16.	10.	14.		
	91	1	180579	6	178.	65.	3	0	2	19.	10.	17.		
	92	1	180579	6	218.	104.	3	0	3	24.	6.	11.	18.	
	93	1	180579	6	85.	8.	3	0	1	8.	6.			
	94	1	180579	6	132.	32.	3	0	2	18.	8.	14.		
	95	1	180579	6	137.	29.	3	0	2	13.	7.	12.		
	96	1	180579	6	172.	62.	3	0	2	20.	7.	13.		
	97	1	180579	6	177.	65.	3	0	2	22.	7.	16.		
	98	1	180579	6	172.	58.	3	0	2	17.	8.	15.		
	99	1	180579	6	175.	59.	3	0	2	24.	12.	20.		
	100	1	180579	6	137.	30.	3	0	2	14.	6.	11.		
	101	1	190579	6	129.	26.	3	0	2	17.	9.	15.		
DROP	102	1	190579	6	261.	0.	3	0	3	24.	6.	12.	20.	
	103	1	190579	6	112.	14.	3	0	2	13.	6.	11.		
	104	1	190579	6	197.	97.	3	0	3	23.	8.	13.	19.	
	105	1	190579	6	191.	88.	3	0	3	16.	6.	13.	16.	
	106	1	190579	6	81.	6.	3	0	1	8.	6.			
	107	1	190579	6	92.	7.	3	0	1	10.	8.			
	108	1	190579	6	152.	36.	3	0	2	16.	6.	14.		
	109	1	190579	6	202.	94.	3	0	3	19.	8.	12.	18.	
	110	1	190579	6	204.	117.	3	0	3	22.	10.	15.	21.	
	111	1	190579	6	226.	119.	3	0	3	24.	6.	14.	19.	
	112	1	190579	6	250.	193.	3	0	3	24.	6.	11.	21.	
	113	1	200579	6	72.	4.	3	0	1	6.	5.			
	114	1	200579	6	77.	5.	3	0	1	6.	4.			
	115	1	200579	6	203.	98.	3	0	3	23.	10.	19.	23.	
	116	1	200579	6	75.	6.	3	0	1	8.	6.			
	117	1	200579	6	61.	4.	3	0	0	5.				

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)				
	118	1	200579	6	87.	7.	3	0	1	8.	6.			
	119	1	200579	6	92.	8.	3	0	1	7.	5.			
	120	1	200579	6	300.	335.	3	0	3	34.	8.	17.	26.	
	121	1	200579	6	91.	9.	3	0	1	11.	9.			
	122	1	200579	6	231.	139.	3	0	3	24.	6.	14.	20.	
	123	1	200579	6	241.	204.	3	0	3	29.	9.	21.	25.	
	124	1	200579	6	240.	142.	3	0	3	31.	9.	19.	28.	
	125	1	200579	6	87.	7.	3	0	1	8.	6.			
	126	1	200579	6	88.	8.	3	0	1	8.	6.			
	127	1	200579	6	228.	151.	3	0	3	21.	8.	14.	18.	
	128	1	200579	6	78.	5.	3	0	1	6.	4.			
	129	1	210579	6	242.	175.	3	0	3	26.	6.	15.	23.	
	130	1	210579	6	220.	103.	3	0	3	23.	8.	13.	20.	
	131	1	210579	6	260.	207.	3	0	4	27.	7.	12.	19.	23.
DROP	137	1	220579	6	75.	0.	3	0	1	10.	6.			
	185	1	180979	6	96.	10.	3	0	1	11.	7.			
	186	1	180979	6	172.	48.	3	0	2	23.	8.	17.		
	187	1	180979	6	175.	50.	3	0	2	19.	8.	14.		
	188	1	180979	6	236.	152.	3	0	3	23.	7.	15.	20.	
	189	1	180979	6	191.	78.	3	0	3	23.	8.	13.	18.	
	190	1	180979	6	184.	72.	3	0	2	23.	8.	16.		
	191	1	180979	6	230.	136.	3	0	3	23.	7.	12.	18.	
	192	1	180979	6	196.	76.	3	0	3	23.	5.	12.	17.	
	193	1	180979	6	223.	117.	3	0	3	22.	7.	15.	18.	
	194	1	180979	6	219.	104.	3	0	3	27.	8.	12.	21.	
	195	1	180979	6	219.	110.	3	0	3	22.	7.	14.	19.	
	196	1	180979	6	188.	66.	3	0	3	23.	6.	12.	19.	
	197	1	180979	6	188.	68.	3	0	2	22.	8.	18.		
	198	1	180979	6	192.	82.	3	0	3	20.	6.	11.	17.	
	199	1	180979	6	207.	95.	3	0	3	21.	7.	13.	19.	
	200	1	180979	6	205.	94.	3	0	3	22.	6.	13.	18.	
	201	1	180979	6	205.	82.	3	0	3	22.	7.	14.	19.	
	202	1	180979	6	194.	83.	3	0	3	23.	7.	13.	19.	
	203	1	180979	6	196.	91.	3	0	3	24.	7.	14.	19.	
	204	1	180979	6	171.	54.	3	0	2	20.	7.	12.		
	205	1	180979	6	152.	27.	3	0	2	20.	6.	13.		
	206	1	180979	6	155.	37.	3	0	2	19.	7.	14.		
	207	1	180979	6	142.	27.	3	0	2	19.	8.	13.		
	208	1	180979	6	157.	45.	3	0	2	18.	7.	14.		
	209	1	180979	6	97.	10.	3	0	1	12.	6.			
	210	1	180979	6	87.	7.	3	0	1	13.	7.			
	211	1	180979	6	125.	17.	3	0	2	20.	7.	14.		
	212	1	180979	6	111.	12.	3	0	1	13.	9.			
	213	1	180979	6	117.	9.	3	0	2	16.	8.	14.		
	214	1	180979	6	113.	13.	3	0	1	13.	7.			
	215	1	180979	6	100.	10.	3	0	1	13.	8.			
	216	1	180979	6	110.	11.	3	0	1	13.	8.			
	217	1	180979	6	91.	8.	3	0	1	11.	7.			
	218	1	180979	6	106.	14.	3	0	1	12.	8.			
	219	1	190979	6	211.	104.	3	0	3	25.	6.	14.	19.	
	220	1	190979	6	95.	11.	3	0	1	11.	6.			
	221	1	190979	6	99.	13.	3	0	1	12.	7.			
	222	1	190979	6	202.	92.	3	0	3	24.	5.	11.	18.	
	223	1	190979	6	182.	68.	3	0	3	20.	5.	10.	14.	
	224	1	190979	6	240.	194.	3	0	3	28.	7.	15.	22.	

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)				
	225	1	190979	6	90.	12.	3	0	1	11.	6.			
	226	1	190979	6	84.	11.	3	0	1	12.	6.			
	227	1	190979	6	166.	50.	3	0	2	21.	11.	18.		
	228	1	190979	6	131.	29.	3	0	2	12.	4.	8.		
	229	1	190979	6	124.	21.	3	0	1	14.	8.			
	230	1	190979	6	116.	22.	3	0	1	13.	9.			
	231	1	190979	6	111.	22.	3	0	2	13.	5.	9.		
	232	1	190979	6	112.	17.	3	0	1	11.	5.			
	233	1	200979	6	267.	201.	3	0	4	28.	6.	12.	17.	24.
	234	1	200979	6	94.	12.	3	0	1	11.	6.			
	235	1	200979	6	211.	96.	3	0	3	20.	6.	9.	15.	
	236	1	200979	6	172.	57.	3	0	2	21.	11.	16.		
	237	1	200979	6	177.	62.	3	0	3	21.	4.	9.	15.	
	238	1	200979	6	99.	12.	3	0	1	12.	4.			
	239	1	200979	6	199.	100.	3	0	2	27.	9.	23.		
	240	1	200979	6	194.	76.	3	0	3	22.	7.	15.	20.	
	241	1	200979	6	187.	69.	3	0	3	24.	7.	14.	21.	
	242	1	200979	6	235.	147.	3	0	3	24.	7.	13.	19.	
	243	1	200979	6	166.	53.	3	0	2	20.	7.	14.		
	244	1	200979	6	111.	18.	3	0	1	14.	7.			
	245	1	200979	6	151.	40.	3	0	3	22.	7.	12.	18.	
	246	1	200979	6	131.	29.	3	0	2	17.	6.	12.		
	247	1	200979	6	142.	34.	3	0	2	20.	9.	16.		
	248	1	200979	6	110.	16.	3	0	1	14.	8.			
	249	1	200979	6	115.	19.	3	0	1	15.	8.			
	250	1	200979	6	111.	16.	3	0	1	13.	8.			
	251	1	200979	6	85.	10.	3	0	1	9.	4.			
	252	1	250979	6	259.	208.	3	0	3	25.	8.	13.	20.	
	253	1	250979	6	90.	11.	3	0	1	11.	7.			
	254	1	250979	6	227.	132.	3	0	2	22.	6.	12.		
	255	1	250979	6	141.	29.	3	0	2	18.	6.	12.		
	256	1	250979	6	142.	33.	3	0	2	17.	9.	15.		
	257	1	250979	6	106.	14.	3	0	1	13.	7.			
	258	1	250979	6	78.	8.	3	0	1	9.	6.			
	259	1	250979	6	279.	265.	3	0	3	34.	8.	17.	24.	
	260	1	260979	6	200.	84.	3	0	3	23.	8.	13.	18.	
	261	1	260979	6	199.	110.	3	0	3	25.	7.	14.	21.	
	262	1	260979	6	201.	92.	3	0	3	18.	6.	11.	16.	
	263	1	270979	6	215.	115.	3	0	3	27.	10.	20.	24.	
	264	1	270979	6	93.	9.	3	0	1	10.	7.			
	265	1	270979	6	244.	173.	3	0	3	33.	11.	23.	29.	
	266	1	270979	6	212.	111.	3	0	3	22.	7.	13.	19.	
DROP	132	1	220579	9	111.	0.	3	0	2	14.	8.	14.		
DROP	133	1	220579	9	241.	0.	3	0	3	31.	7.	17.	25.	
DROP	134	1	220579	9	123.	0.	3	0	2	19.	7.	14.		
DROP	135	1	220579	9	87.	0.	3	0	1	10.	7.			
DROP	136	1	220579	9	83.	0.	3	0	1	9.	6.			
DROP	138	1	220579	9	80.	0.	3	0	1	10.	8.			
DROP	139	1	220579	9	246.	0.	3	0	3	26.	6.	13.	21.	
DROP	140	1	220579	9	123.	0.	3	0	2	15.	6.	12.		
DROP	141	1	220579	9	82.	0.	3	0	1	10.	7.			
DROP	142	1	220579	9	115.	0.	3	0	2	19.	8.	14.		
DROP	143	1	220579	9	96.	0.	3	0	1	15.	10.			
DROP	144	1	220579	9	123.	0.	3	0	2	18.	7.	15.		
DROP	145	1	220579	9	108.	0.	3	0	2	16.	7.	13.		

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)				
DROP	146	1	230579	9	220.	0.	3	0	3	20.	6.	14.	17.	
DROP	147	1	230579	9	75.	0.	3	0	1	12.	8.			
DROP	148	1	230579	9	85.	0.	3	0	1	10.	7.			
DROP	149	1	230579	9	85.	0.	3	0	1	9.	6.			
DROP	150	1	230579	9	115.	0.	3	0	2	17.	8.	14.		
DROP	151	1	230579	9	86.	0.	3	0	1	12.	8.			
DROP	152	1	230579	9	105.	0.	3	0	2	13.	4.	10.		
DROP	153	1	230579	9	99.	0.	3	0	1	12.	8.			
DROP	154	1	230579	9	75.	0.	3	0	1	9.	6.			
DROP	155	1	230579	9	96.	0.	3	0	2	19.	7.	14.		
DROP	156	1	230579	9	66.	0.	3	0	1	8.	6.			
DROP	157	1	230579	9	78.	0.	3	0	1	9.	5.			
DROP	158	1	230579	9	73.	0.	3	0	1	12.	7.			
DROP	159	1	230579	9	108.	0.	3	0	2	13.	6.	11.		
DROP	160	1	230579	9	129.	0.	3	0	2	13.	5.	10.		
DROP	161	1	230579	9	162.	0.	3	0	2	20.	8.	16.		
DROP	162	1	240579	9	85.	0.	3	0	1	12.	9.			
DROP	163	1	240579	9	116.	0.	3	0	2	16.	7.	14.		
DROP	164	1	240579	9	86.	0.	3	0	1	11.	7.			
DROP	165	1	240579	9	106.	0.	3	0	2	12.	4.	10.		
DROP	166	1	240579	9	82.	0.	3	0	1	11.	6.			
DROP	167	1	240579	9	77.	0.	3	0	1	8.	5.			
DROP	168	1	240579	9	89.	0.	3	0	1	12.	6.			
DROP	169	1	250579	9	83.	0.	3	0	1	10.	7.			
DROP	170	1	290579	9	143.	0.	3	0	2	18.	7.	14.		
DROP	171	1	290579	9	260.	0.	3	0	3	30.	7.	18.	23.	
DROP	172	1	290579	9	123.	0.	3	0	2	21.	6.	14.		
DROP	173	1	290579	9	123.	0.	3	0	2	18.	8.	15.		
DROP	174	1	290579	9	129.	0.	3	0	2	14.	5.	10.		
DROP	175	1	290579	9	121.	0.	3	0	2	12.	6.	10.		
DROP	176	1	300579	9	86.	0.	3	0	1	10.	8.			
DROP	177	1	290579	9	63.	0.	3	0	1	9.	6.			
DROP	178	1	70679	9	104.	0.	3	0	1	13.	7.			
DROP	179	1	70679	9	94.	0.	3	0	1	11.	7.			
DROP	180	1	70679	9	143.	0.	3	0	2	19.	6.	13.		
	181	1	70679	9	301.	342.	3	0	4	31.	6.	12.	22.	27.
DROP	182	1	70679	9	87.	0.	3	0	1	11.	7.			
DROP	183	1	70679	9	69.	0.	3	0	1	8.	4.			
	184	1	70679	9	271.	241.	3	0	4	24.	5.	10.	17.	21.
	512	1	190579	5	160.	43.	3	0	2	20.	7.	13.		
	513	1	210579	5	186.	74.	3	0	3	21.	6.	12.	18.	
	514	1	190579	5	160.	40.	3	0	3	26.	10.	14.	22.	
	515	1	190579	5	225.	119.	3	0	3	24.	8.	14.	21.	
	516	1	190579	5	185.	74.	3	0	3	15.	5.	9.	13.	
	517	1	190579	5	190.	76.	3	0	3	25.	7.	16.	22.	
	518	1	190579	5	228.	129.	3	0	3	22.	9.	16.	22.	
	519	1	190579	5	145.	36.	3	0	2	22.	11.	19.		
	520	1	190579	5	215.	103.	3	0	3	30.	10.	19.	26.	
	521	1	190579	5	242.	150.	3	0	4	35.	7.	14.	23.	32.
	522	1	190579	5	198.	88.	3	0	3	24.	7.	16.	24.	
	523	1	210579	5	184.	66.	2	0	3	19.	6.	12.	17.	
	1	1	200580	6	172.	68.	3	0	3	21.	7.	13.	18.	
	2	1	200580	6	219.	112.	3	0	4	29.	5.	12.	20.	29.
	3	1	200580	6	171.	60.	3	0	3	23.	6.	12.	20.	
	4	1	200580	6	194.	100.	3	0	3	24.	6.	13.	21.	

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
5	1	200580	6	138.	33.	3	0	2	16.	8.	14.			
6	1	200580	6	213.	108.	3	0	4	28.	6.	13.	20.	25.	
7	1	200580	6	137.	31.	3	0	2	13.	5.	11.			
8	1	200580	6	260.	160.	3	0	4	27.	6.	14.	21.	25.	
9	1	210580	6	288.	272.	3	0	4	23.	4.	9.	16.	21.	
10	1	210580	6	308.	300.	3	0	5	35.	5.	10.	19.	25.	30.
11	1	270580	6	202.	103.	3	0	3	21.	4.	11.	17.		
12	1	270580	6	225.	139.	3	0	3	16.	4.	11.	16.		
13	1	270580	6	171.	64.	3	0	3	14.	4.	8.	12.		
14	1	270580	6	245.	168.	3	0	4	25.	4.	12.	19.	23.	
15	1	270580	6	162.	49.	3	0	3	17.	4.	8.	14.		
16	1	270580	6	157.	47.	3	0	2	15.	5.	11.			
17	1	270580	6	145.	47.	3	0	3	16.	5.	8.	14.		
18	1	270580	6	166.	55.	3	0	3	19.	5.	10.	17.		
19	1	270580	6	188.	76.	3	0	2	15.	5.	12.			
20	1	270580	6	200.	107.	3	0	3	17.	5.	9.	15.		
21	1	270580	6	173.	58.	3	0	3	16.	4.	8.	14.		
22	1	270580	6	224.	130.	3	0	3	18.	5.	11.	16.		
23	1	270580	6	218.	115.	3	0	3	24.	6.	11.	18.		
24	1	270580	6	200.	100.	3	0	3	19.	5.	13.	17.		
25	1	270580	6	244.	188.	3	0	3	24.	7.	14.	19.		
26	1	270580	6	191.	70.	3	0	2	18.	7.	14.			
27	1	270580	6	182.	74.	3	0	3	15.	5.	9.	13.		
28	1	270580	6	308.	386.	3	0	5	40.	5.	10.	20.	27.	40.
29	1	270580	6	185.	81.	3	0	3	18.	5.	9.	15.		
30	1	270580	6	189.	79.	3	0	3	25.	5.	10.	20.		
31	1	270580	6	161.	50.	3	0	2	19.	6.	15.			
32	1	270580	6	331.	528.	3	0	5	43.	7.	14.	22.	29.	39.
33	1	270580	6	245.	194.	3	0	4	28.	4.	10.	18.	24.	
34	1	270580	6	162.	52.	3	0	2	19.	8.	17.			
35	1	270580	6	224.	130.	3	0	3	24.	7.	14.	20.		
36	1	270580	6	162.	51.	3	0	3	18.	4.	9.	15.		
37	1	270580	6	206.	99.	3	0	3	24.	6.	13.	21.		
38	1	270580	6	206.	108.	3	0	3	15.	4.	9.	13.		
39	1	270580	6	157.	55.	3	0	2	20.	6.	15.			
40	1	270580	6	228.	134.	3	0	3	22.	5.	13.	18.		
41	1	270580	6	124.	27.	3	0	2	12.	3.	9.			
42	1	270580	6	170.	61.	3	0	3	16.	5.	10.	16.		
43	1	270580	6	195.	91.	3	0	3	20.	5.	10.	17.		
44	1	270580	6	197.	81.	3	0	3	20.	4.	10.	17.		
45	1	270580	6	288.	274.	3	0	4	21.	5.	10.	17.	20.	
46	1	270580	6	246.	176.	3	0	4	27.	5.	10.	17.	23.	
47	1	280580	6	251.	206.	3	0	4	23.	4.	12.	17.	21.	
48	1	280580	6	155.	40.	3	0	2	12.	6.	10.			
49	1	280580	6	234.	161.	3	0	4	30.	7.	16.	22.	27.	
50	1	280580	6	156.	47.	3	0	3	16.	4.	8.	14.		
51	1	290580	6	340.	551.	3.	0	5	33.	3.	7.	15.	23.	29.
52	1	280580	6	254.	200.	3	0	4	27.	6.	12.	19.	27.	
53	1	280580	6	250.	216.	3	0	4	33.	7.	15.	23.	28.	
54	1	280580	6	154.	42.	3	0	3	21.	5.	11.	17.		
55	1	280580	6	152.	40.	3	0	2	17.	7.	13.			
56	1	280580	6	151.	39.	3	0	2	16.	5.	13.			
57	1	280580	6	120.	20.	3	0	2	12.	4.	10.			
58	1	290580	6	296.	350.	3	0	5	32.	4.	8.	16.	22.	32.
59	1	40680	6	198.	87.	3	0	2	19.	8.	16.			

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
60	1	40680	6	233.	168.	3	0	4	28.	4.	9.	17.	25.	
61	1	40680	6	158.	46.	3	0	2	18.	8.	14.			
62	1	40680	6	148.	30.	3	0	2	14.	4.	10.			
63	1	40680	6	124.	24.	3	0	2	16.	5.	12.			
64	1	40680	6	161.	55.	3	0	3	17.	4.	7.	12.		
65	1	40680	6	190.	82.	3	0	3	20.	5.	10.	16.		
66	1	40680	6	188.	79.	3	0	3	21.	5.	13.	18.		
67	1	40680	6	180.	65.	3	0	3	21.	6.	10.	16.		
68	1	40680	6	138.	32.	3	0	2	13.	5.	10.			
69	1	40680	6	167.	62.	3	0	2	18.	7.	15.			
70	1	40680	6	213.	114.	3	0	3	24.	5.	10.	19.		
71	1	40680	6	213.	111.	3	0	3	20.	5.	11.	17.		
72	1	40680	6	204.	96.	3	0	3	25.	7.	12.	22.		
73	1	40680	6	205.	106.	3	0	3	18.	5.	10.	15.		
74	1	40680	6	108.	14.	3	0	2	17.	3.	12.			
75	1	40680	6	225.	141.	3	0	4	20.	3.	8.	11.	16.	
76	1	40680	6	130.	18.	3	0	2	11.	5.	9.			
77	1	40680	6	183.	73.	3	0	3	19.	6.	10.	16.		
78	1	40680	6	198.	92.	3	0	3	20.	5.	12.	17.		
79	1	40680	6	139.	30.	3	0	2	13.	5.	10.			
80	1	40680	6	180.	66.	3	0	2	14.	4.	11.			
81	1	50680	6	134.	25.	3	0	2	11.	5.	9.			
82	1	50680	6	81.	6.	3	0	1	10.	7.				
83	1	50680	6	143.	31.	3	0	3	15.	4.	9.	13.		
84	1	50680	6	100.	10.	3	0	1	8.	5.				
85	1	50680	6	320.	438.	3	0	5	30.	4.	10.	17.	23.	28.
86	1	50680	6	133.	26.	3	0	2	20.	8.	16.			
87	1	100980	6	264.	247.	3	0	4	26.	5.	12.	18.	22.	
88	1	100980	6	221.	132.	3	0	3	24.	7.	13.	20.		
89	1	100980	6	114.	14.	3	0	1	12.	6.				
90	1	100980	6	220.	126.	3	0	3	20.	6.	11.	15.		
91	1	100980	6	221.	118.	3	0	3	21.	4.	10.	16.		
92	1	100980	6	241.	186.	3	0	3	22.	6.	11.	17.		
93	1	100980	6	253.	184.	3	0	3	24.	5.	10.	16.		
94	1	100980	6	138.	27.	3	0	2	18.	5.	10.			
95	1	100980	6	167.	58.	3	0	2	14.	3.	8.			
96	1	100980	6	149.	34.	3	0	2	17.	4.	10.			
97	1	100980	6	125.	20.	3	0	1	14.	6.				
98	1	100980	6	141.	27.	3	0	2	15.	4.	8.			
99	1	100980	6	125.	27.	3	0	1	15.	6.				
100	1	100980	6	152.	41.	3	0	2	16.	4.	12.			
101	1	100980	6	200.	99.	3	0	3	23.	5.	10.	16.		
102	1	100980	6	159.	42.	3	0	2	20.	7.	11.			
103	1	100980	6	210.	106.	3	0	3	16.	5.	9.	12.		
104	1	100980	6	267.	189.	3	0	4	35.	4.	8.	16.	25.	
105	1	100980	6	146.	32.	3	0	2	16.	5.	10.			
106	1	100980	6	159.	44.	3	0	2	19.	5.	13.			
107	1	100980	6	233.	154.	3	0	3	23.	7.	12.	19.		
108	1	100980	6	151.	35.	3	0	2	18.	4.	10.			
109	1	100980	6	137.	26.	3	0	2	12.	3.	7.			
110	1	100980	6	187.	66.	3	0	2	21.	6.	12.			
111	1	100980	6	245.	160.	3	0	3	28.	5.	14.	23.		
112	1	100980	6	219.	153.	3	0	3	20.	6.	11.	16.		
113	1	100980	6	211.	113.	3	0	3	23.	5.	10.	16.		
114	1	100980	6	176.	60.	3	0	2	18.	5.	11.			

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)				
115	1	100980	6	152.	37.	3	0	2	18.	5.	11.		
116	1	100980	6	199.	84.	3	0	3	24.	6.	13.	18.	
117	1	100980	6	200.	90.	3	0	3	27.	6.	12.	19.	
118	1	100980	6	203.	91.	3	0	3	16.	3.	7.	11.	
119	1	100980	6	175.	55.	3	0	2	20.	4.	11.		
120	1	100980	6	218.	128.	3	0	2	19.	4.	11.		
121	1	100980	6	119.	18.	3	0	1	13.	6.			
122	1	100980	6	205.	92.	3	0	3	22.	6.	11.	18.	
123	1	100980	6	176.	69.	3	0	2	16.	5.	11.		
124	1	100980	6	170.	57.	3	0	2	17.	6.	12.		
125	1	100980	6	307.	358.	3	0	4	32.	6.	11.	16.	22.
126	1	110980	6	243.	158.	3	0	2	19.	6.	13.		
127	1	110980	6	231.	138.	3	0	3	21.	3.	8.	15.	
128	1	110980	6	195.	75.	3	0	2	21.	7.	14.		
129	1	110980	6	187.	70.	3	0	3	18.	6.	10.	15.	
130	1	110980	6	184.	64.	3	0	2	24.	6.	15.		
131	1	110980	6	186.	73.	3	0	3	17.	4.	8.	13.	
132	1	110980	6	228.	141.	3	0	3	21.	4.	8.	16.	
133	1	110980	6	222.	130.	3	0	3	18.	4.	9.	15.	
134	1	110980	6	181.	57.	3	0	2	17.	4.	10.		
135	1	110980	6	199.	79.	3	0	3	22.	4.	10.	15.	
136	1	110980	6	234.	153.	3	0	3	27.	7.	17.	23.	
137	1	110980	6	250.	172.	3	0	3	24.	4.	10.	17.	
138	1	110980	6	262.	211.	3	0	3	22.	5.	11.	19.	
139	1	110980	6	160.	42.	3	0	3	20.	5.	11.	16.	
140	1	110980	6	189.	78.	3	0	3	22.	5.	9.	16.	
141	1	110980	6	164.	39.	3	0	2	18.	5.	12.		
142	1	110980	6	167.	46.	3	0	2	18.	5.	11.		
143	1	110980	6	149.	33.	3	0	2	16.	7.	12.		
144	1	110980	6	187.	69.	3	0	2	24.	6.	17.		
145	1	110980	6	232.	141.	3	0	3	22.	6.	13.	18.	
146	1	110980	6	183.	56.	3	0	2	20.	6.	12.		
147	1	110980	6	140.	27.	3	0	2	17.	6.	12.		
148	1	110980	6	187.	68.	3	0	2	18.	4.	12.		
149	1	110980	6	176.	56.	3	0	2	19.	5.	11.		
150	1	110980	6	175.	61.	3	0	2	16.	5.	10.		
151	1	110980	6	191.	85.	3	0	3	20.	6.	12.	16.	
152	1	110980	6	288.	277.	3	0	3	26.	7.	12.	18.	
153	1	110980	6	198.	77.	3	0	2	22.	6.	12.		
154	1	110980	6	188.	81.	3	0	3	24.	6.	12.	19.	
155	1	110980	6	225.	129.	3	0	3	21.	5.	13.	18.	
156	1	110980	6	269.	260.	3	0	4	22.	4.	10.	15.	19.
157	1	110980	6	179.	62.	3	0	2	21.	6.	14.		
158	1	110980	6	270.	205.	3	0	4	27.	6.	13.	18.	24.
159	1	110980	6	241.	155.	3	0	3	20.	5.	12.	16.	
160	1	110980	6	210.	104.	3	0	2	27.	6.	17.		
161	1	110980	6	262.	210.	3	0	4	24.	5.	12.	17.	20.
162	1	110980	6	180.	55.	3	0	3	21.	4.	9.	14.	
163	1	110980	6	162.	42.	3	0	2	17.	5.	10.		
164	1	110980	6	192.	77.	3	0	2	17.	4.	9.		
165	1	110980	6	252.	185.	3	0	3	22.	5.	11.	19.	
166	1	110980	6	212.	106.	3	0	3	25.	6.	11.	17.	
167	1	110980	6	171.	52.	3	0	2	16.	5.	9.		
168	1	110980	6	210.	108.	3	0	3	21.	7.	12.	17.	
169	1	110980	6	153.	32.	3	0	2	19.	5.	9.		

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
	170	1	110980	6	203.	94.	3	0	3	18.	4.	9.	14.		
	171	1	110980	6	177.	70.	3	0	2	13.	4.	9.			
	172	1	110980	6	164.	51.	3	0	2	18.	4.	11.			
	173	1	110980	6	196.	74.	3	0	3	26.	6.	15.	21.		
	174	1	110980	6	210.	108.	3	0	3	21.	5.	12.	17.		
	175	1	110980	6	171.	50.	3	0	2	18.	5.	10.			
	176	1	110980	6	199.	75.	3	0	2	18.	6.	11.			
	177	1	110980	6	116.	15.	3	0	1	13.	6.				
	178	1	110980	6	208.	101.	3	0	2	23.	4.	19.			
	179	1	160980	6	329.	505.	3	0	5	27.	5.	12.	17.	20.	24.
	180	1	230980	6	91.	8.	3	0	1	7.	4.				
	181	1	230980	6	85.	8.	3	0	1	9.	5.				
	182	1	230980	6	100.	12.	3	0	1	9.	5.				
	549	1	170580	5	245.	149.	2	1	4	22.	6.	12.	18.	22.	
	550	1	170580	5	245.	188.	1	1	4	29.	7.	16.	22.	28.	
	551	1	170580	5	161.	56.	2	2	3	19.	5.	11.	17.		
	552	1	170580	5	240.	121.	1	1	4	25.	7.	11.	15.	21.	
	553	1	170580	5	200.	91.	2	2	3	20.	6.	14.	20.		
	554	1	170580	5	268.	225.	2	2	4	27.	5.	13.	18.	24.	
	555	1	170580	5	231.	133.	2	2	4	20.	4.	9.	13.	18.	
	556	1	170580	5	266.	198.	1	2	5	40.	6.	12.	20.	29.	40.
	557	1	170580	5	225.	112.	2	2	3	20.	7.	13.	18.		
	558	1	170580	5	190.	81.	2	2	3	21.	4.	12.	19.		
	559	1	170580	5	239.	162.	2	2	4	27.	7.	11.	15.	22.	
	560	1	170580	5	190.	75.	2	2	4	20.	6.	11.	16.	16.	
	561	1	170580	5	268.	207.	2	2	4	28.	5.	12.	20.	25.	
	562	1	170580	5	155.	38.	2	2	3	15.	4.	10.	14.		
	563	1	170580	5	195.	90.	1	0	3	21.	5.	12.	18.		
	564	1	170580	5	168.	54.	2	1	3	17.	4.	9.	15.		
	565	1	170580	5	225.	130.	1	1	4	25.	5.	10.	17.	22.	
	566	1	170580	5	177.	53.	1	1	3	22.	6.	11.	22.		
	567	1	170580	5	188.	74.	2	2	3	20.	5.	13.	17.		
	568	1	170580	5	170.	50.	1	1	3	14.	3.	7.	12.		
	569	1	180580	5	146.	36.	3	0	3	22.	7.	13.	19.		
	570	1	180580	5	190.	76.	3	0	3	20.	5.	12.	18.		
	571	1	180580	5	150.	41.	3	0	3	23.	5.	12.	19.		
	572	1	180580	5	167.	54.	3	0	3	18.	4.	10.	16.		
	573	1	180580	5	145.	34.	3	0	2	15.	6.	12.			
	574	1	180580	5	146.	37.	3	0	3	17.	3.	9.	17.		
	575	1	180580	5	183.	77.	3	0	3	22.	6.	11.	20.		
	576	1	180580	5	173.	63.	3	0	3	20.	5.	12.	17.		
	577	1	180580	5	215.	104.	1	1	3	16.	4.	9.	16.		
	578	1	180580	5	193.	88.	2	2	3	23.	5.	13.	21.		
	579	1	180580	5	196.	67.	2	2	4	22.	5.	10.	16.	22.	
	580	1	180580	5	224.	109.	1	0	3	30.	6.	17.	26.		
	581	1	180580	5	220.	124.	1	2	4	31.	5.	10.	16.	27.	
	582	1	180580	5	185.	62.	3	0	3	20.	8.	14.	19.		
	583	1	180580	5	163.	42.	2	1	3	23.	5.	12.	21.		
DROP	584	1	180580	5	0.	62.	2	2	4	24.	5.	12.	17.	23.	
	585	1	180580	5	190.	73.	2	2	4	26.	7.	13.	19.	24.	
	586	1	180580	5	165.	46.	2	2	3	22.	5.	12.	18.		
	587	1	180580	5	190.	61.	1	1	3	26.	6.	16.	24.		
	588	1	180580	5	148.	33.	2	1	3	19.	4.	9.	17.		
	589	1	180580	5	194.	80.	1	1	4	24.	5.	11.	17.	23.	
	590	1	180580	5	185.	67.	2	2	4	27.	5.	14.	22.	24.	

ROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
	591	1	180580	5	173.	62.	1	1	3	21.	7.	13.	18.		
	592	1	180580	5	200.	71.	2	2	4	25.	5.	10.	18.	25.	
	593	1	180580	5	185.	78.	1	1	3	25.	5.	13.	20.		
DROP	594	1	180580	5	243.	0.	2	2	4	25.	6.	10.	16.	23.	
	595	1	180580	5	215.	140.	1	1	3	25.	5.	16.	22.		
	596	1	180580	5	225.	120.	2	2	4	28.	5.	10.	17.	24.	
	597	1	180580	5	167.	51.	1	1	3	17.	5.	11.	15.		
	598	1	180580	5	165.	47.	1	1	3	24.	6.	15.	21.		
	599	1	180580	5	190.	120.	1	1	4	26.	5.	10.	16.	22.	
	600	1	180580	5	242.	157.	1	0	3	28.	6.	12.	22.		
	601	1	180580	5	185.	41.	2	1	3	23.	5.	9.	20.		
	602	1	180580	5	220.	101.	2	2	4	23.	5.	12.	18.	23.	
	603	1	190580	5	165.	48.	2	0	3	22.	5.	11.	20.		
	604	1	190580	5	170.	58.	2	0	3	14.	5.	8.	12.		
	242	2	130978	6	185.	70.	3	0	2	20.	7.	16.			
	243	2	130978	6	228.	124.	3	0	2	29.	10.	22.			
	244	2	130978	6	238.	144.	3	0	2	24.	11.	19.			
	245	2	130978	6	267.	211.	3	0	3	28.	4.	9.	21.		
	246	2	130978	6	213.	100.	3	0	2	30.	7.	20.			
	247	2	130978	6	247.	140.	3	0	3	25.	6.	11.	21.		
	248	2	130978	6	215.	100.	3	0	2	26.	10.	21.			
	249	2	130978	6	273.	233.	3	0	3	29.	6.	15.	21.		
	250	2	130978	6	219.	120.	3	0	3	26.	7.	14.	20.		
	251	2	60978	6	279.	260.	3	0	3	30.	7.	18.	26.		
	252	2	60978	6	340.	568.	2	0	5	39.	5.	15.	18.	22.	28.
	253	2	130978	6	238.	148.	3	0	3	23.	5.	11.	18.		
	254	2	130978	6	247.	156.	3	0	3	30.	8.	17.	26.		
	255	2	130978	6	178.	57.	3	0	2	15.	6.	11.			
	256	2	60978	6	282.	249.	3	0	3	31.	9.	17.	27.		
	257	2	60978	6	325.	346.	3	0	4	35.	8.	12.	22.	28.	
	263	2	300978	6	245.	192.	3	0	3	23.	6.	13.	19.		
	268	2	60978	6	310.	366.	3	0	4	31.	8.	13.	19.	24.	
	269	2	130978	6	214.	110.	3	0	2	24.	8.	17.			
	270	2	130978	6	195.	83.	3	0	2	19.	6.	14.			
	271	2	130978	6	294.	270.	3	0	4	31.	6.	12.	16.	22.	
	275	2	300878	6	205.	100.	3	0	3	18.	4.	9.	15.		
	279	2	300878	6	234.	139.	3	0	3	25.	6.	10.	19.		
	280	2	300878	6	193.	84.	3	0	2	16.	8.	13.			
	281	2	130978	6	330.	450.	3	0	4	35.	8.	13.	19.	26.	
	282	2	300878	6	251.	180.	3	0	4	26.	6.	14.	17.	20.	
	283	2	300878	6	190.	84.	3	0	2	21.	9.	16.			
	285	2	300878	6	254.	260.	3	0	3	27.	6.	13.	23.		
	286	2	300878	6	180.	74.	3	0	2	20.	4.	14.			
	287	2	130978	6	245.	162.	3	0	2	22.	7.	16.			
	288	2	130978	6	244.	170.	3	0	3	24.	5.	12.	18.		
	289	2	70978	6	182.	66.	3	0	2	23.	6.	16.			
	290	2	70978	6	234.	152.	3	0	3	21.	4.	9.	17.		
	291	2	70978	6	170.	56.	3	0	2	20.	5.	13.			
	292	2	70978	6	207.	91.	3	0	2	23.	9.	17.			
	293	2	70978	6	244.	166.	3	0	3	25.	5.	10.	17.		
	296	2	130978	6	178.	75.	3	0	2	15.	5.	11.			
	297	2	130978	6	155.	40.	3	0	1	19.	10.				
	298	2	130978	6	255.	192.	3	0	2	25.	8.	19.			
	299	2	130978	6	150.	39.	3	0	2	18.	4.	9.			
	300	2	130978	6	261.	190.	3	0	4	30.	6.	15.	20.	26.	

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
312	2	300878	6	206.	113.	3	0	2	23.	8.	18.			
313	2	300878	6	200.	90.	3	0	3	21.	5.	12.	18.		
314	2	300878	6	265.	260.	3	0	3	28.	8.	13.	24.		
316	2	6097A	6	299.	226.	3	0	3	19.	5.	8.	14.		
317	2	13097A	6	253.	177.	3	0	3	33.	5.	14.	24.		
318	2	13097A	6	290.	264.	3	0	4	28.	6.	11.	18.	24.	
321	2	13097A	6	275.	208.	3	0	3	29.	6.	13.	19.		
322	2	13097A	6	268.	214.	3	0	3	27.	5.	12.	19.		
323	2	7097A	6	333.	423.	3	0	4	35.	5.	13.	18.	25.	
324	2	13097A	6	301.	334.	3	0	5	38.	7.	12.	18.	27.	33.
325	2	13097A	6	109.	12.	3	0	1	10.	5.				
326	2	13097A	6	253.	190.	3	0	3	24.	7.	13.	19.		
327	2	13097A	6	270.	230.	3	0	3	30.	4.	12.	20.		
328	2	7097A	6	219.	103.	3	0	2	31.	12.	24.			
329	2	13097A	6	220.	125.	3	0	2	28.	8.	20.			
330	2	13097A	6	219.	115.	3	0	2	23.	5.	12.			
331	2	13097A	6	234.	139.	3	0	3	27.	6.	12.	22.		
332	2	13097A	6	247.	160.	3	0	3	22.	5.	11.	18.		
333	2	13097A	6	306.	333.	3	0	4	34.	8.	13.	19.	25.	
334	2	13097A	6	201.	86.	3	0	2	20.	6.	14.			
335	2	13097A	6	280.	228.	3	0	4	36.	6.	10.	18.	28.	
336	2	13097A	6	242.	180.	3	0	3	30.	5.	12.	25.		
337	2	13097A	6	236.	148.	3	0	3	25.	7.	13.	22.		
339	2	13097A	6	277.	243.	3	0	3	30.	6.	12.	23.		
340	2	13097A	6	124.	13.	3	0	1	15.	6.				
342	2	13097A	6	335.	454.	3	0	5	36.	6.	13.	17.	23.	31.
343	2	13097A	6	271.	220.	3	0	3	34.	6.	17.	29.		
344	2	13097A	6	272.	210.	3	0	4	31.	7.	12.	18.	28.	
345	2	13097A	6	198.	110.	3	0	2	18.	6.	12.			
346	2	13097A	6	180.	66.	3	0	2	20.	9.	15.			
347	2	13097A	6	177.	59.	3	0	2	19.	7.	13.			
348	2	13097A	6	230.	119.	3	0	3	27.	6.	14.	24.		
315	2	6097A	2	243.	170.	3	0	3	25.	9.	17.	22.		
258	2	8097A	1	187.	70.	1	1	2	25.	9.	18.			
259	2	8097A	1	190.	71.	2	2	2	23.	8.	19.			
260	2	8097A	1	170.	50.	2	1	2	21.	7.	14.			
261	2	8097A	1	187.	71.	2	2	2	19.	8.	15.			
262	2	8097A	1	209.	90.	1	1	2	26.	9.	20.			
264	2	8097A	1	175.	60.	2	1	2	18.	7.	12.			
265	2	8097A	1	195.	85.	3	0	2	28.	9.	23.			
266	2	8097A	1	176.	51.	1	0	2	18.	5.	12.			
267	2	8097A	1	171.	50.	1	0	2	25.	9.	18.			
272	2	8097A	1	185.	70.	2	2	2	22.	9.	18.			
273	2	8097A	1	198.	80.	2	2	2	20.	8.	15.			
274	2	8097A	1	218.	104.	2	2	3	25.	6.	12.	19.		
276	2	8097A	1	167.	41.	2	2	2	22.	8.	16.			
277	2	8097A	1	214.	100.	1	1	2	21.	8.	15.			
278	2	8097A	1	176.	60.	2	1	2	24.	7.	16.			
294	2	8097A	1	186.	62.	1	0	2	19.	6.	12.			
295	2	8097A	1	210.	100.	2	0	3	27.	4.	14.	22.		
301	2	8097A	1	185.	71.	2	2	2	22.	8.	18.			
302	2	8097A	1	198.	97.	2	0	2	21.	8.	15.			
303	2	8097A	1	189.	82.	2	0	2	22.	10.	17.			
304	2	8097A	1	210.	114.	2	0	3	21.	6.	12.	17.		
305	2	8097A	1	184.	73.	1	0	2	20.	8.	17.			

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)				
	306	2	80978	1	218.	122.	2	0	2	26.	9.	17.		
	307	2	80978	1	290.	262.	1	0	4	28.	5.	9.	15.	20.
	308	2	80978	1	238.	149.	2	0	3	26.	6.	11.	22.	
	309	2	80978	1	180.	60.	1	1	2	17.	5.	10.		
	310	2	80978	1	178.	60.	2	1	2	20.	5.	12.		
	311	2	80978	1	193.	70.	1	1	2	22.	10.	17.		
	349	2	130978	6	221.	114.	3	0	2	18.	9.	13.		
	350	2	130978	6	201.	90.	3	0	2	22.	6.	15.		
	351	2	70978	6	184.	67.	3	0	2	18.	6.	15.		
	352	2	130978	6	210.	100.	3	0	2	25.	6.	18.		
	353	2	130978	6	221.	130.	3	0	2	25.	10.	21.		
	354	2	130978	6	119.	19.	3	0	1	15.	7.			
	356	2	130978	6	216.	109.	3	0	3	23.	4.	10.	19.	
	357	2	130978	6	305.	351.	3	0	4	37.	6.	12.	23.	33.
	358	2	130978	6	222.	110.	3	0	2	22.	6.	18.		
	359	2	130978	6	188.	71.	3	0	2	18.	9.	14.		
DROP	341	2	130978	6	338.	490.	3	0	0	0.				
DROP	338	2	130978	6	243.	150.	3	0	0	0.				
DROP	319	2	130978	6	250.	224.	3	0	0	0.				
DROP	320	2	130978	6	338.	494.	3	0	0	0.				
DROP	284	2	300878	2	387.	476.	3	0	0	0.				
	267	2	180579	6	169.	49.	3	0	3	26.	7.	16.	23.	
	268	2	180579	6	168.	52.	3	0	3	21.	6.	13.	19.	
	269	2	180579	6	101.	10.	3	0	1	11.	7.			
	270	2	180579	6	102.	11.	3	0	1	9.	6.			
	271	2	180579	6	91.	8.	3	0	1	9.	6.			
	272	2	180579	6	97.	9.	3	0	1	12.	10.			
	273	2	180579	6	165.	44.	3	0	3	18.	6.	12.	16.	
	274	2	180579	6	162.	46.	3	0	2	15.	6.	13.		
	275	2	180579	6	163.	48.	3	0	2	15.	6.	13.		
	276	2	180579	6	153.	36.	3	0	2	20.	10.	17.		
	277	2	180579	6	157.	39.	3	0	2	18.	10.	16.		
	278	2	180579	6	195.	77.	3	0	3	19.	6.	13.	17.	
	279	2	180579	6	81.	5.	3	0	1	9.	7.			
	280	2	180579	6	88.	7.	3	0	1	13.	8.			
	281	2	180579	6	155.	40.	3	0	2	15.	6.	12.		
	282	2	180579	6	170.	53.	3	0	2	19.	9.	16.		
	283	2	180579	6	121.	17.	3	0	2	18.	8.	16.		
	284	2	180579	6	124.	17.	3	0	2	13.	6.	11.		
	285	2	180579	6	156.	31.	3	0	2	17.	7.	15.		
	286	2	180579	6	94.	8.	3	0	1	14.	10.			
	287	2	180579	6	224.	108.	3	0	3	24.	10.	17.	21.	
	288	2	180579	6	225.	124.	3	0	3	23.	6.	13.	19.	
	289	2	180579	6	138.	25.	3	0	2	20.	8.	18.		
	290	2	180579	6	280.	256.	3	0	4	26.	7.	15.	20.	24.
	291	2	180579	6	89.	7.	3	0	1	9.	7.			
	292	2	180579	6	78.	4.	3	0	1	8.	6.			
	293	2	180579	6	195.	77.	3	0	3	22.	9.	15.	20.	
	294	2	180579	6	153.	33.	3	0	2	17.	9.	15.		
	295	2	180579	6	138.	27.	3	0	2	21.	12.	17.		
	296	2	180579	6	162.	45.	3	0	2	18.	7.	15.		
	297	2	180579	6	109.	15.	3	0	1	11.	7.			
	298	2	180579	6	154.	40.	3	0	2	24.	11.	21.		
	299	2	180579	6	116.	18.	3	0	2	12.	5.	10.		
	300	2	180579	6	139.	26.	3	0	2	15.	6.	13.		

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
301	2	180579	6	117.	16.	3	0	2	13.	6.	11.			
302	2	180579	6	130.	22.	3	0	2	15.	8.	14.			
303	2	180579	6	111.	14.	3	0	2	14.	6.	12.			
304	2	180579	6	250.	168.	3	0	4	28.	6.	13.	20.	24.	
305	2	180579	6	240.	176.	3	0	4	33.	6.	13.	21.	29.	
306	2	180579	6	149.	37.	3	0	2	17.	8.	14.			
307	2	180579	6	142.	30.	3	0	2	15.	7.	13.			
308	2	180579	6	143.	30.	3	0	2	15.	6.	13.			
309	2	180579	6	142.	29.	3	0	2	18.	5.	13.			
310	2	180579	6	120.	18.	3	0	2	14.	7.	11.			
311	2	180579	6	124.	21.	3	0	2	17.	9.	15.			
312	2	180579	6	188.	77.	3	0	2	18.	6.	13.			
313	2	180579	6	180.	57.	3	0	2	22.	6.	17.			
314	2	180579	6	123.	17.	3	0	2	15.	7.	12.			
315	2	180579	6	200.	87.	3	0	2	22.	7.	14.			
316	2	180579	6	178.	58.	3	0	2	20.	8.	17.			
317	2	180579	6	172.	50.	3	0	2	19.	9.	17.			
318	2	180579	6	116.	15.	3	0	2	10.	6.	9.			
319	2	180579	6	172.	58.	3	0	3	19.	7.	13.	16.		
320	2	180579	6	197.	79.	3	0	3	21.	5.	12.	18.		
321	2	180579	6	172.	52.	3	0	3	23.	8.	14.	21.		
322	2	180579	6	176.	55.	3	0	2	17.	7.	14.			
323	2	190579	6	156.	42.	3	0	2	17.	8.	15.			
324	2	190579	6	251.	159.	3	0	3	21.	8.	13.	17.		
325	2	190579	6	264.	208.	3	0	4	33.	7.	15.	25.	30.	
326	2	190579	6	195.	88.	3	0	3	21.	4.	13.	19.		
327	2	190579	6	289.	256.	3	0	3	29.	8.	18.	24.		
328	2	190579	6	148.	36.	3	0	2	14.	6.	13.			
329	2	190579	6	237.	140.	3	0	3	33.	9.	22.	28.		
330	2	190579	6	216.	115.	3	0	3	29.	9.	18.	26.		
331	2	190579	6	184.	73.	3	0	2	14.	7.	12.			
337	2	200579	6	169.	61.	3	0	3	21.	7.	15.	21.		
338	2	200579	6	86.	12.	3	0	1	10.	6.				
339	2	200579	6	274.	263.	3	0	3	32.	8.	19.	28.		
340	2	200579	6	208.	93.	3	0	3	25.	7.	14.	21.		
341	2	200579	6	184.	77.	3	0	3	19.	5.	12.	17.		
342	2	200579	6	189.	77.	3	0	2	19.	9.	16.			
343	2	200579	6	265.	181.	3	0	4	28.	11.	17.	22.	26.	
344	2	200579	6	334.	510.	3	0	5	41.	7.	15.	21.	26.	34.
345	2	200579	6	204.	108.	3	0	3	23.	7.	15.	20.		
346	2	200579	6	76.	6.	3	0	1	9.	7.				
347	2	200579	6	231.	143.	3	0	3	25.	10.	18.	23.		
348	2	200579	6	220.	115.	3	0	3	20.	7.	14.	18.		
349	2	200579	6	243.	178.	3	0	3	23.	8.	15.	20.		
354	2	220579	6	286.	266.	3	0	4	32.	5.	12.	21.	26.	
355	2	220579	6	197.	88.	3	0	3	26.	8.	14.	22.		
356	2	220579	6	195.	66.	3	0	3	28.	9.	17.	25.		
357	2	220579	6	144.	34.	3	0	2	16.	7.	12.			
358	2	220579	6	78.	6.	3	0	1	11.	9.				
359	2	220579	6	140.	32.	3	0	2	18.	7.	16.			
360	2	220579	6	140.	38.	3	0	2	17.	8.	14.			
361	2	220579	6	117.	16.	3	0	2	18.	8.	15.			
362	2	220579	6	113.	17.	3	0	2	13.	5.	10.			
363	2	220579	6	111.	16.	3	0	2	14.	7.	12.			
364	2	220579	6	107.	16.	3	0	1	11.	9.				

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)				
	365	2	220579	6	103.	19.	3	0	1	11.	8.			
	366	2	220579	6	253.	179.	3	0	4	27.	8.	15.	21.	24.
	367	2	220579	6	255.	199.	3	0	3	30.	6.	13.	24.	
	368	2	220579	6	236.	142.	3	0	3	28.	9.	19.	26.	
	369	2	220579	6	130.	23.	3	0	2	16.	7.	13.		
	370	2	220579	6	182.	77.	3	0	2	21.	5.	14.		
	371	2	220579	6	182.	70.	3	0	2	19.	5.	11.		
	372	2	220579	6	175.	67.	3	0	3	24.	8.	16.	24.	
	373	2	220579	6	122.	21.	3	0	2	13.	6.	11.		
	374	2	220579	6	190.	94.	3	0	2	25.	11.	21.		
DROP	375	2	220579	6	206.	105.	3	0	0	0.				
	376	2	230579	6	121.	28.	3	0	2	15.	5.	13.		
	377	2	230579	6	242.	223.	3	0	3	32.	9.	17.	27.	
	378	2	230579	6	252.	186.	3	0	3	32.	9.	19.	25.	
	379	2	230579	6	262.	203.	3	0	4	30.	9.	14.	21.	27.
	380	2	230579	6	262.	217.	3	0	3	36.	12.	20.	30.	
	381	2	230579	6	76.	4.	3	0	1	10.	7.			
	382	2	230579	6	252.	195.	3	0	3	26.	8.	18.	23.	
	383	2	230579	6	314.	313.	3	0	4	32.	6.	12.	19.	27.
	384	2	230579	6	280.	251.	3	0	4	33.	8.	15.	23.	29.
	532	2	210579	6	77.	5.	3	1	1	9.	6.			
	533	2	210579	6	288.	331.	1	2	4	40.	6.	14.	28.	36.
	534	2	220579	6	225.	104.	1	2	3	26.	6.	15.	22.	
	535	2	220579	6	198.	82.	1	2	3	26.	8.	17.	23.	
	536	2	220579	6	195.	75.	1	2	2	21.	8.	17.		
	524	2	190579	6	302.	314.	3	0	5	29.	6.	12.	16.	22. 28.
	542	2	220579	6	189.	77.	2	0	3	27.	9.	16.	23.	
	543	2	220579	6	115.	18.	2	1	2	18.	8.	14.		
	544	2	230579	6	74.	6.	3	0	1	12.	8.			
	545	2	230579	6	105.	15.	2	1	2	16.	6.	13.		
	546	2	230579	6	328.	323.	1	2	4	48.	8.	14.	25.	40.
	393	2	180979	6	163.	48.	3	0	2	21.	7.	14.		
	394	2	180979	6	164.	62.	3	0	2	21.	7.	15.		
	395	2	180979	6	90.	16.	3	0	1	10.	4.			
	396	2	180979	6	211.	104.	3	0	3	29.	8.	17.	24.	
	397	2	180979	6	99.	20.	3	0	1	12.	7.			
	398	2	180979	6	125.	30.	3	0	2	18.	8.	12.		
DROP	399	2	180979	6	294.	303.	3	0	0	0.				
	400	2	180979	6	205.	103.	3	0	3	26.	8.	15.	21.	
	401	2	180979	6	204.	104.	3	0	3	25.	8.	14.	21.	
	402	2	180979	6	168.	58.	3	0	2	20.	7.	14.		
	403	2	180979	6	168.	55.	3	0	2	27.	8.	19.		
	404	2	180979	6	116.	26.	3	0	1	20.	8.			
	405	2	180979	6	114.	24.	3	0	2	18.	6.	12.		
	406	2	180979	6	68.	16.	3	0	0	9.				
	407	2	180979	6	80.	14.	3	0	1	10.	5.			
	408	2	180979	6	86.	16.	3	0	1	10.	6.			
	409	2	180979	6	193.	90.	3	0	3	28.	9.	17.	23.	
	410	2	180979	6	83.	14.	3	0	1	14.	8.			
	411	2	180979	6	223.	138.	3	0	3	23.	6.	13.	17.	
	412	2	180979	6	241.	170.	3	0	3	27.	8.	16.	20.	
	413	2	180979	6	175.	57.	3	0	2	24.	8.	15.		
	414	2	180979	6	175.	65.	3	0	2	21.	8.	14.		
	415	2	180979	6	165.	52.	3	0	2	18.	5.	14.		
	416	2	180979	6	179.	61.	3	0	2	24.	8.	16.		

ROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)				
417	2	180979	6	145.	40.	3	0	2	23.	9.	17.		
418	2	180979	6	164.	53.	3	0	3	21.	6.	11.	17.	
419	2	180979	6	168.	62.	3	0	3	26.	9.	16.	21.	
420	2	180979	6	186.	85.	3	0	2	26.	13.	21.		
421	2	190979	6	95.	10.	3	0	1	11.	7.			
422	2	190979	6	165.	53.	3	0	2	19.	5.	13.		
423	2	190979	6	115.	16.	3	0	2	18.	6.	12.		
424	2	190979	6	163.	49.	3	0	2	19.	8.	14.		
425	2	190979	6	164.	54.	3	0	3	25.	9.	13.	20.	
426	2	190979	6	165.	50.	3	0	2	21.	6.	14.		
427	2	190979	6	185.	40.	3	0	2	24.	8.	16.		
428	2	190979	6	180.	76.	3	0	2	26.	9.	20.		
429	2	190979	6	255.	200.	3	0	3	31.	11.	20.	26.	
430	2	190979	6	91.	8.	3	0	1	15.	10.			
431	2	190979	6	114.	20.	3	0	1	13.	6.			
432	2	190979	6	262.	184.	3	0	3	32.	10.	20.	26.	
433	2	190979	6	127.	25.	3	0	1	15.	5.			
434	2	190979	6	195.	80.	3	0	2	24.	7.	16.		
435	2	190979	6	120.	17.	3	0	1	15.	8.			
436	2	190979	6	158.	46.	3	0	2	16.	7.	13.		
437	2	190979	6	270.	246.	3	0	3	35.	7.	20.	28.	
438	2	190979	6	230.	150.	3	0	3	28.	7.	15.	23.	
439	2	190979	6	310.	360.	3	0	4	50.	12.	25.	36.	42.
440	2	190979	6	259.	209.	3	0	3	34.	10.	20.	28.	
441	2	190979	6	204.	97.	3	0	2	29.	9.	21.		
442	2	190979	6	201.	87.	3	0	3	25.	8.	15.	21.	
443	2	190979	6	229.	138.	3	0	3	28.	10.	17.	22.	
444	2	190979	6	225.	150.	3	0	3	32.	8.	14.	25.	
445	2	190979	6	205.	92.	3	0	3	25.	6.	13.	20.	
446	2	190979	6	115.	14.	3	0	1	15.	7.			
447	2	190979	6	112.	15.	3	0	1	22.	12.			
448	2	190979	6	94.	9.	3	0	1	21.	8.			
449	2	190979	6	107.	10.	3	0	1	14.	9.			
450	2	190979	6	58.	1.	3	0	0	8.				
451	2	190979	6	211.	101.	3	0	3	29.	6.	12.	22.	
452	2	190979	6	89.	9.	3	0	1	14.	8.			
453	2	190979	6	212.	117.	3	0	3	28.	6.	17.	23.	
454	2	190979	6	86.	7.	3	0	1	13.	6.			
455	2	190979	6	84.	7.	3	0	1	12.	7.			
456	2	190979	6	196.	89.	3	0	3	23.	7.	14.	19.	
457	2	190979	6	195.	88.	3	0	2	24.	8.	18.		
458	2	190979	6	195.	72.	3	0	2	26.	8.	18.		
459	2	190979	6	56.	4.	3	0	0	9.				
460	2	190979	6	171.	54.	3	0	2	25.	9.	17.		
461	2	190979	6	149.	40.	3	0	2	15.	6.	10.		
462	2	190979	6	176.	64.	3	0	2	20.	6.	14.		
463	2	190979	6	175.	52.	3	0	2	27.	9.	18.		
464	2	190979	6	179.	78.	3	0	2	17.	8.	13.		
465	2	190979	6	176.	68.	3	0	2	19.	9.	16.		
466	2	190979	6	192.	73.	3	0	2	19.	5.	12.		
467	2	190979	6	177.	64.	3	0	2	20.	7.	13.		
468	2	190979	6	75.	7.	3	0	1	11.	8.			
469	2	190979	6	165.	48.	3	0	2	21.	7.	15.		
470	2	200979	6	199.	97.	3	0	3	25.	6.	15.	21.	
471	2	200979	6	258.	207.	3	0	3	38.	8.	17.	25.	

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)				
	472	2	200979	6	154.	43.	3	0	2	23.	6.	13.		
	473	2	200979	6	113.	20.	3	0	1	13.	6.			
	474	2	200979	6	215.	128.	3	0	3	32.	8.	18.	24.	
	475	2	200979	6	176.	64.	3	0	2	18.	8.	14.		
	476	2	200979	6	151.	44.	3	0	2	18.	4.	11.		
	477	2	200979	6	273.	255.	3	0	4	32.	4.	11.	20.	27.
	478	2	200979	6	202.	110.	3	0	3	23.	7.	11.	18.	
	479	2	200979	6	114.	18.	3	0	1	15.	9.			
	480	2	200979	6	208.	114.	3	0	3	27.	8.	15.	23.	
	481	2	200979	6	121.	25.	3	0	2	16.	6.	11.		
	482	2	200979	6	104.	14.	3	0	1	14.	9.			
	483	2	200979	6	190.	85.	3	0	2	22.	8.	18.		
	484	2	200979	6	169.	53.	3	0	2	19.	5.	11.		
	485	2	200979	6	138.	36.	3	0	2	17.	7.	11.		
	486	2	200979	6	134.	35.	3	0	2	13.	4.	10.		
	487	2	200979	6	159.	47.	3	0	3	22.	5.	11.	18.	
	488	2	200979	6	155.	46.	3	0	2	19.	9.	15.		
	489	2	200979	6	147.	44.	3	0	2	19.	7.	14.		
	490	2	200979	6	133.	30.	3	0	2	19.	5.	14.		
	491	2	210979	6	140.	42.	3	0	2	16.	8.	12.		
	492	2	210979	6	70.	4.	3	0	1	10.	6.			
	493	2	210979	6	266.	189.	3	0	3	24.	8.	15.	21.	
	494	2	210979	6	328.	439.	3	0	4	34.	8.	18.	22.	27.
	495	2	210979	6	235.	171.	3	0	3	26.	7.	16.	22.	
	496	2	210979	6	144.	30.	3	0	2	20.	4.	12.		
	497	2	210979	6	131.	26.	3	0	2	15.	7.	12.		
	498	2	210979	6	255.	185.	3	0	3	28.	7.	12.	20.	
	499	2	210979	6	250.	225.	3	0	3	30.	9.	20.	24.	
	500	2	210979	6	255.	206.	3	0	3	26.	7.	14.	20.	
	501	2	210979	6	131.	21.	3	0	1	16.	9.			
	502	2	210979	6	145.	33.	3	0	2	21.	8.	15.		
	503	2	250979	6	258.	216.	3	0	3	34.	10.	23.	28.	
	504	2	250979	6	233.	132.	3	0	3	32.	9.	15.	24.	
	505	2	250979	6	65.	6.	3	0	1	13.	8.			
	506	2	250979	6	239.	154.	3	0	3	38.	10.	21.	31.	
	507	2	250979	6	74.	5.	3	0	1	14.	8.			
	508	2	250979	6	232.	143.	3	0	3	40.	10.	19.	29.	
	509	2	250979	6	235.	134.	3	0	3	26.	7.	13.	21.	
	510	2	270979	6	68.	4.	3	0	1	10.	7.			
	511	2	270979	6	298.	313.	3	0	3	37.	13.	25.	32.	
DROP	525	2	190579	5	220.	0.	1	2	3	37.	10.	20.	29.	
DROP	526	2	190579	5	228.	0.	2	2	0	0.				
	527	2	200579	5	226.	109.	3	0	3	37.	10.	24.	32.	
	528	2	200579	5	272.	210.	3	0	4	33.	4.	14.	22.	29.
	529	2	200579	5	194.	94.	3	0	3	26.	9.	16.	23.	
	530	2	200579	5	186.	68.	1	2	3	21.	7.	15.	19.	
	531	2	200579	5	192.	69.	3	0	2	23.	8.	19.		
	537	2	220579	5	186.	71.	1	2	3	21.	6.	12.	17.	
	538	2	220579	5	172.	52.	2	2	3	24.	7.	15.	22.	
	539	2	220579	5	183.	65.	2	2	2	22.	9.	19.		
	540	2	220579	5	188.	67.	1	2	3	23.	7.	15.	20.	
	541	2	220579	5	242.	186.	2	2	4	34.	7.	17.	27.	34.
	547	2	80879	8	52.	6.	3	0	0	9.				
	548	2	80879	8	66.	6.	3	0	1	11.	5.			
DROP	549	2	80879	8	45.	0.	3	0	0	0.				

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)				
	550	2	80879	8	60.	7.	3	0	0	10.				
DROP	551	2	80879	8	50.	0.	3	0	0	6.				
	552	2	80879	8	49.	6.	3	0	0	8.				
	553	2	80879	8	57.	5.	3	0	0	5.				
	554	2	80879	8	39.	3.	3	0	0	6.				
	555	2	80879	8	61.	8.	3	0	1	9.	7.			
	556	2	80879	8	62.	5.	3	0	0	6.				
	557	2	80879	8	55.	5.	3	0	0	7.				
DROP	558	2	80879	8	55.	5.	3	0	0	0.				
	559	2	80879	8	92.	13.	3	0	1	14.	8.			
	560	2	80879	8	77.	9.	3	0	1	11.	5.			
	561	2	80879	8	55.	5.	3	0	0	7.				
	562	2	80879	8	56.	6.	3	0	0	7.				
	563	2	80879	8	47.	5.	3	0	0	7.				
	564	2	80879	8	50.	3.	3	0	0	6.				
	565	2	80879	8	65.	4.	3	0	1	10.	7.			
	566	2	80879	8	89.	8.	3	0	1	12.	8.			
	567	2	80879	8	67.	6.	3	0	1	10.	7.			
	568	2	80879	8	84.	9.	3	0	1	8.	5.			
	569	2	80879	8	51.	5.	3	0	0	5.				
	570	2	80879	8	85.	10.	3	0	1	12.	6.			
	571	2	80879	8	55.	5.	3	0	0	7.				
DROP	332	2	200579	9	81.	0.	3	0	1	12.	8.			
DROP	333	2	200579	9	74.	0.	3	0	0	0.				
DROP	334	2	200579	9	78.	0.	3	0	1	9.	7.			
DROP	335	2	200579	9	66.	0.	3	0	1	7.	6.			
DROP	336	2	200579	9	105.	0.	3	0	1	12.	8.			
DROP	350	2	210579	9	74.	0.	3	0	1	12.	8.			
DROP	351	2	210579	9	79.	0.	3	0	1	10.	7.			
DROP	352	2	210579	9	85.	0.	3	0	1	11.	7.			
DROP	353	2	210579	9	70.	0.	3	0	1	8.	6.			
DROP	385	2	240579	9	85.	0.	3	0	1	9.	6.			
DROP	386	2	240579	9	145.	0.	3	0	2	16.	9.	13.		
DROP	387	2	240579	9	72.	0.	3	0	1	13.	10.			
DROP	388	2	240579	9	146.	0.	3	0	2	14.	5.	11.		
DROP	389	2	240579	9	77.	0.	3	0	1	11.	6.			
DROP	390	2	70679	9	50.	0.	3	0	0	0.				
DROP	391	2	70679	9	40.	0.	3	0	0	0.				
	183	2	190580	6	225.	160.	3	0	3	18.	4.	11.	16.	
	184	2	190580	6	235.	122.	3	0	3	23.	8.	14.	21.	
	185	2	190580	6	281.	221.	3	0	4	26.	5.	14.	21.	24.
	186	2	190580	6	260.	214.	3	0	5	27.	5.	9.	13.	20. 24.
	187	2	190580	6	297.	271.	3	0	4	26.	4.	10.	17.	23.
	188	2	190580	6	230.	128.	3	0	4	21.	6.	11.	16.	21.
DROP	189	2	200580	6	298.	0.	3	0	4	20.	4.	11.	16.	20.
	190	2	200580	6	261.	200.	3	0	4	27.	6.	12.	19.	25.
	191	2	210580	6	279.	221.	3	0	5	26.	5.	9.	16.	21. 26.
	192	2	210580	6	113.	20.	3	0	2	14.	6.	11.		
	193	2	210580	6	217.	84.	3	0	4	23.	4.	10.	16.	21.
	194	2	210580	6	203.	106.	3	0	3	19.	5.	10.	17.	
	195	2	210580	6	197.	85.	3	0	3	20.	5.	11.	18.	
	196	2	210580	6	217.	105.	3	0	4	18.	3.	8.	13.	18.
	197	2	210580	6	127.	21.	3	0	2	13.	6.	12.		
	198	2	210580	6	206.	115.	3	0	4	27.	6.	12.	19.	24.
	199	2	210580	6	165.	54.	3	0	3	18.	4.	9.	16.	

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)						
	200	2	210580	6	207.	110.	3	0	3	18.	5.	10.	16.			
	201	2	210580	6	224.	131.	3	0	3	22.	5.	12.	20.			
	202	2	210580	6	274.	263.	3	0	4	24.	5.	11.	16.	20.		
	203	2	210580	6	225.	129.	3	0	4	27.	4.	9.	14.	19.		
	204	2	210580	6	236.	154.	3	0	3	24.	6.	12.	20.			
	205	2	210580	6	136.	31.	3	0	2	14.	5.	11.				
	206	2	210580	6	127.	28.	3	0	2	12.	5.	11.				
	207	2	210580	6	224.	127.	3	0	3	17.	5.	9.	15.			
	208	2	210580	6	124.	25.	3	0	2	13.	5.	11.				
	209	2	210580	6	186.	78.	3	0	3	18.	5.	11.	17.			
	210	2	210580	6	169.	60.	3	0	3	18.	5.	11.	16.			
	211	2	210580	6	195.	78.	3	0	3	23.	5.	15.	21.			
	212	2	210580	6	214.	109.	3	0	4	24.	5.	11.	18.	24.		
	213	2	210580	6	115.	20.	3	0	2	8.	4.	7.				
	214	2	210580	6	198.	79.	3	0	3	22.	6.	13.	19.			
	215	2	210580	6	189.	90.	3	0	3	20.	5.	10.	17.			
	216	2	210580	6	202.	107.	3	0	3	23.	6.	12.	20.			
	217	2	210580	6	208.	101.	3	0	4	21.	4.	8.	13.	19.		
	218	2	210580	6	203.	99.	3	0	3	19.	5.	10.	17.			
	219	2	210580	6	215.	109.	3	0	3	20.	5.	10.	18.			
	220	2	210580	6	186.	66.	3	0	3	20.	5.	12.	18.			
	221	2	210580	6	137.	34.	3	0	2	12.	5.	10.				
	222	2	210580	6	191.	81.	3	0	4	24.	6.	9.	15.	22.		
	223	2	210580	6	147.	36.	3	0	3	17.	4.	6.	14.			
	224	2	210580	6	155.	42.	3	0	3	20.	6.	14.	18.			
	225	2	210580	6	192.	85.	3	0	4	19.	5.	8.	12.	17.		
	226	2	210580	6	157.	46.	3	0	3	23.	5.	10.	20.			
	227	2	210580	6	207.	94.	3	0	3	20.	6.	11.	18.			
	228	2	210580	6	115.	22.	3	0	2	11.	6.	10.				
	229	2	210580	6	145.	39.	3	0	2	20.	8.	17.				
	230	2	210580	6	223.	126.	3	0	3	16.	5.	10.	14.			
	231	2	210580	6	200.	95.	3	0	4	19.	4.	9.	13.	19.		
	232	2	210580	6	328.	497.	3	0	6	38.	4.	14.	19.	25.	30.	35.
	233	2	210580	6	243.	157.	3	0	4	25.	4.	11.	17.	22.		
	234	2	210580	6	233.	147.	3	0	4	22.	5.	11.	16.	20.		
	235	2	210580	6	260.	181.	3	0	5	32.	5.	10.	15.	22.	28.	
	236	2	210580	6	235.	129.	3	0	4	25.	5.	15.	20.	25.		
	237	2	210580	6	124.	24.	3	0	2	12.	4.	9.				
	238	2	210580	6	195.	104.	3	0	3	22.	5.	10.	18.			
	239	2	210580	6	310.	378.	3	0	4	29.	5.	10.	17.	25.		
	240	2	210580	6	256.	173.	3	0	4	23.	5.	14.	19.	23.		
DROP	241	2	210580	6	201.	0.	3	0	3	17.	6.	10.	15.			
	242	2	210580	6	211.	110.	3	0	3	19.	6.	12.	17.			
	243	2	210580	6	192.	80.	3	0	3	23.	7.	12.	18.			
	244	2	210580	6	212.	94.	3	0	4	24.	4.	7.	13.	19.		
	245	2	210580	6	208.	108.	3	0	3	15.	5.	10.	13.			
	246	2	210580	6	177.	60.	3	0	3	16.	4.	9.	14.			
	247	2	210580	6	218.	127.	3	0	4	24.	6.	11.	17.	21.		
	248	2	210580	6	258.	215.	3	0	4	21.	4.	11.	15.	15.		
	249	2	210580	6	245.	175.	3	0	3	22.	5.	10.	17.			
	250	2	210580	6	207.	97.	3	0	3	19.	5.	10.	16.			
	251	2	220580	6	338.	372.	3	0	5	30.	5.	9.	14.	20.	27.	
	252	2	40680	6	165.	45.	3	0	2	12.	5.	10.				
	253	2	40680	6	165.	51.	3	0	3	19.	5.	10.	16.			
	254	2	40680	6	172.	55.	3	0	3	15.	4.	6.	12.			

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

	FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)				
	255	2	40680	6	187.	69.	3	0	3	18.	6.	12.	15.	
	256	2	40680	6	102.	13.	3	0	2	13.	6.	10.		
	257	2	40680	6	207.	106.	3	0	3	15.	5.	9.	14.	
	258	2	40680	6	254.	175.	3	0	3	21.	5.	13.	18.	
	259	2	40680	6	109.	16.	3	0	2	13.	4.	9.		
	260	2	40680	6	113.	16.	3	0	2	10.	4.	9.		
	261	2	40680	6	124.	20.	3	0	2	12.	5.	10.		
	262	2	40680	6	260.	206.	3	0	4	26.	5.	10.	17.	23.
	263	2	40680	6	183.	65.	3	0	3	19.	4.	12.	17.	
	264	2	40680	6	216.	111.	3	0	3	20.	6.	12.	18.	
	265	2	40680	6	108.	15.	3	0	1	6.	4.			
	266	2	40680	6	107.	16.	3	0	1	9.	6.			
	267	2	40680	6	119.	22.	3	0	2	11.	4.	8.		
	268	2	40680	6	199.	77.	3	0	3	18.	5.	11.	16.	
	269	2	40680	6	186.	73.	3	0	3	20.	7.	13.	18.	
	270	2	40680	6	117.	16.	3	0	2	9.	8.	4.		
	271	2	40680	6	173.	53.	3	0	2	17.	5.	15.		
	272	2	40680	6	239.	162.	3	0	4	29.	5.	10.	19.	25.
	273	2	40680	6	99.	14.	3	0	1	9.	6.			
	274	2	40680	6	209.	104.	3	0	3	20.	5.	9.	17.	
	275	2	40680	6	138.	31.	3	0	2	15.	6.	13.		
	276	2	40680	6	160.	48.	3	0	3	18.	4.	8.	15.	
	277	2	40680	6	176.	56.	3	0	2	16.	4.	13.		
	278	2	40680	6	195.	89.	3	0	3	21.	4.	11.	19.	
	279	2	40680	6	195.	77.	3	0	3	14.	3.	7.	12.	
	280	2	40680	6	165.	52.	3	0	3	15.	4.	7.	13.	
	281	2	40680	6	215.	105.	3	0	3	23.	7.	13.	20.	
DROP	282	2	40680	6	235.	0.	3	0	4	24.	5.	12.	16.	20.
	283	2	40680	6	205.	90.	3	0	3	22.	6.	14.	22.	
	284	2	40680	6	112.	16.	3	0	2	14.	5.	12.		
	285	2	40680	6	191.	80.	3	0	3	22.	6.	12.	17.	
	286	2	40680	6	155.	43.	3	0	2	14.	5.	11.		
	287	2	40680	6	144.	38.	3	0	2	15.	5.	13.		
	288	2	40680	6	146.	35.	3	0	2	13.	5.	10.		
	289	2	40680	6	236.	162.	3	0	3	23.	7.	15.	21.	
	290	2	40680	6	117.	19.	3	0	2	15.	6.	12.		
	291	2	40680	6	209.	94.	3	0	3	19.	4.	9.	16.	
	292	2	40680	6	258.	232.	3	0	4	23.	5.	8.	16.	20.
	293	2	40680	6	215.	116.	3	0	3	19.	4.	10.	17.	
	294	2	40680	6	229.	136.	3	0	4	26.	5.	9.	18.	23.
	295	2	40680	6	213.	110.	3	0	3	27.	6.	13.	21.	
	296	2	40680	6	212.	119.	3	0	3	23.	4.	11.	20.	
	297	2	40680	6	115.	17.	3	0	2	14.	5.	12.		
	298	2	40680	6	241.	160.	3	0	4	26.	6.	15.	20.	24.
	299	2	40680	6	213.	119.	3	0	3	23.	5.	13.	19.	
	300	2	40680	6	109.	12.	3	0	2	12.	5.	10.		
	301	2	40680	6	139.	33.	3	0	2	18.	8.	16.		
	302	2	40680	6	187.	69.	3	0	3	26.	6.	13.	23.	
	303	2	40680	6	215.	121.	3	0	4	20.	4.	9.	14.	18.
	304	2	40680	6	220.	113.	3	0	3	20.	5.	12.	18.	
	305	2	40680	6	201.	87.	3	0	4	23.	4.	11.	16.	20.
	306	2	40680	6	221.	135.	3	0	4	21.	4.	11.	17.	21.
	307	2	40680	6	115.	15.	3	0	2	13.	5.	11.		
	308	2	40680	6	111.	17.	3	0	2	15.	6.	11.		
	309	2	40680	6	244.	161.	3	0	4	23.	5.	10.	15.	21.

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
310	2	40680	6	211.	104.	3	0	3	28.	6.	12.	22.		
311	2	40680	6	235.	153.	3	0	3	24.	7.	13.	20.		
312	2	40680	6	164.	48.	3	0	3	16.	5.	10.	14.		
313	2	40680	6	165.	48.	3	0	3	17.	4.	9.	14.		
314	2	40680	6	270.	222.	3	0	4	26.	7.	13.	18.	22.	
315	2	40680	6	215.	122.	3	0	3	20.	5.	9.	16.		
316	2	40680	6	232.	152.	3	0	4	19.	4.	8.	13.	17.	
317	2	40680	6	150.	38.	3	0	3	17.	6.	11.	14.		
318	2	40680	6	104.	13.	3	0	2	13.	5.	10.			
319	2	40680	6	164.	48.	3	0	3	12.	3.	7.	11.		
320	2	40680	6	190.	74.	3	0	3	14.	4.	8.	12.		
321	2	40680	6	134.	30.	3	0	2	13.	5.	11.			
322	2	50680	6	317.	445.	3	0	5	34.	3.	8.	17.	23.	28.
323	2	100980	6	141.	31.	3	0	2	20.	5.	11.			
324	2	100980	6	165.	55.	3	0	2	25.	5.	15.			
325	2	100980	6	146.	41.	3	0	2	16.	6.	11.			
326	2	100980	6	189.	86.	3	0	3	24.	6.	12.	18.		
327	2	100980	6	176.	63.	3	0	2	28.	9.	17.			
328	2	100980	6	144.	35.	3	0	2	23.	7.	15.			
329	2	100980	6	141.	34.	3	0	2	16.	5.	9.			
330	2	100980	6	196.	79.	3	0	3	24.	4.	7.	13.		
331	2	100980	6	178.	70.	3	0	2	20.	5.	13.			
332	2	100980	6	194.	91.	3	0	3	27.	6.	12.	23.		
333	2	100980	6	204.	105.	3	0	3	26.	5.	9.	18.		
334	2	100980	6	211.	118.	3	0	3	23.	5.	9.	14.		
335	2	100980	6	227.	149.	3	0	4	29.	5.	9.	15.	21.	
336	2	100980	6	200.	90.	3	0	3	26.	6.	11.	20.		
337	2	100980	6	200.	84.	3	0	3	26.	5.	9.	14.		
338	2	100980	6	214.	125.	3	0	3	21.	5.	10.	16.		
339	2	100980	6	198.	92.	3	0	3	14.	5.	8.	11.		
340	2	100980	6	186.	82.	3	0	2	21.	3.	11.			
341	2	100980	6	238.	161.	3	0	3	28.	6.	15.	22.		
342	2	100980	6	133.	28.	3	0	2	13.	5.	8.			
343	2	100980	6	169.	59.	3	0	3	21.	4.	10.	16.		
344	2	100980	6	154.	42.	3	0	2	14.	4.	8.			
345	2	100980	6	158.	50.	3	0	2	15.	5.	12.			
346	2	100980	6	133.	29.	3	0	1	14.	5.				
347	2	100980	6	238.	168.	3	0	3	25.	6.	12.	18.		
348	2	100980	6	120.	22.	3	0	1	11.	6.				
349	2	100980	6	261.	215.	3	0	4	22.	5.	8.	12.	18.	
350	2	100980	6	269.	226.	3	0	4	25.	4.	8.	14.	20.	
351	2	100980	6	245.	179.	3	0	3	25.	6.	13.	18.		
352	2	100980	6	213.	93.	3	0	3	25.	5.	7.	17.		
353	2	100980	6	243.	165.	3	0	3	20.	5.	9.	15.		
354	2	100980	6	266.	223.	3	0	4	33.	5.	9.	19.	26.	
355	2	100980	6	225.	130.	3	0	3	17.	3.	6.	11.		
356	2	100980	6	277.	242.	3	0	4	35.	7.	13.	19.	26.	
357	2	100980	6	254.	196.	3	0	4	29.	4.	7.	14.	22.	
358	2	100980	6	202.	104.	3	0	3	29.	7.	13.	21.		
359	2	100980	6	227.	139.	3	0	3	23.	4.	8.	17.		
360	2	100980	6	186.	79.	3	0	2	16.	5.	11.			
361	2	100980	6	172.	57.	3	0	3	19.	4.	7.	13.		
362	2	100980	6	188.	73.	3	0	3	29.	7.	12.	20.		
363	2	100980	6	171.	48.	3	0	2	13.	4.	9.			
364	2	100980	6	297.	350.	3	0	4	32.	4.	9.	16.	23.	

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)				
365	2	100980	6	169.	58.	3	0	3	18.	4.	8.	12.	
366	2	100980	6	228.	134.	3	0	3	23.	5.	13.	19.	
367	2	100980	6	215.	114.	3	0	3	20.	5.	9.	15.	
368	2	100980	6	168.	53.	3	0	2	18.	6.	12.		
369	2	100980	6	205.	112.	3	0	3	20.	5.	10.	15.	
370	2	100980	6	215.	122.	3	0	3	24.	6.	14.	19.	
371	2	100980	6	203.	99.	3	0	2	18.	5.	12.		
372	2	100980	6	207.	110.	3	0	3	20.	4.	10.	15.	
373	2	100980	6	270.	255.	3	0	4	26.	5.	10.	15.	21.
374	2	100980	6	247.	177.	3	0	3	23.	5.	10.	16.	
375	2	100980	6	156.	44.	3	0	2	20.	6.	12.		
376	2	100980	6	212.	120.	3	0	3	20.	5.	9.	14.	
377	2	100980	6	225.	130.	3	0	4	22.	6.	11.	15.	19.
378	2	100980	6	200.	100.	3	0	3	26.	4.	8.	19.	
379	2	100980	6	185.	68.	3	0	3	16.	5.	8.	12.	
380	2	100980	6	148.	38.	3	0	2	15.	4.	7.		
381	2	100980	6	140.	30.	3	0	2	15.	5.	8.		
382	2	100980	6	211.	107.	3	0	3	19.	3.	7.	14.	
383	2	100980	6	208.	107.	3	0	2	18.	4.	10.		
384	2	100980	6	240.	184.	3	0	4	33.	6.	15.	22.	27.
385	2	100980	6	249.	195.	3	0	3	18.	4.	7.	13.	
386	2	100980	6	238.	158.	3	0	3	29.	6.	10.	23.	
387	2	100980	6	184.	72.	3	0	3	19.	4.	7.	12.	
388	2	100980	6	260.	212.	3	0	4	32.	5.	9.	17.	27.
389	2	100980	6	176.	61.	3	0	3	25.	5.	10.	17.	
390	2	100980	6	110.	20.	3	0	1	10.	5.			
391	2	100980	6	156.	40.	3	0	2	12.	4.	7.		
392	2	100980	6	173.	65.	3	0	3	17.	4.	8.	14.	
393	2	100980	6	228.	135.	3	0	3	29.	5.	8.	20.	
394	2	100980	6	117.	22.	3	0	2	13.	5.	9.		
395	2	100980	6	190.	77.	3	0	3	21.	4.	9.	15.	
396	2	100980	6	167.	52.	3	0	2	22.	4.	11.		
397	2	100980	6	185.	79.	3	0	3	23.	5.	11.	17.	
398	2	100980	6	149.	36.	3	0	2	18.	5.	11.		
399	2	100980	6	263.	223.	3	0	3	24.	5.	10.	17.	
400	2	100980	6	210.	127.	3	0	3	22.	5.	12.	18.	
401	2	100980	6	172.	58.	3	0	3	22.	4.	9.	14.	
402	2	100980	6	235.	166.	3	0	3	32.	6.	15.	26.	
403	2	100980	6	213.	132.	3	0	3	19.	5.	10.	15.	
404	2	100980	6	291.	304.	3	0	4	26.	5.	10.	15.	20.
405	2	100980	6	182.	75.	3	0	2	20.	5.	13.		
406	2	100980	6	261.	225.	3	0	4	35.	5.	10.	16.	27.
407	2	100980	6	178.	77.	3	0	3	21.	5.	9.	15.	
408	2	100980	6	254.	192.	3	0	3	22.	4.	13.	18.	
409	2	100980	6	242.	177.	3	0	4	27.	4.	10.	15.	22.
410	2	100980	6	155.	46.	3	0	2	21.	6.	12.		
411	2	100980	6	222.	122.	3	0	3	20.	5.	10.	15.	
412	2	100980	6	116.	20.	3	0	2	17.	5.	11.		
413	2	100980	6	183.	67.	3	0	2	13.	4.	10.		
414	2	100980	6	188.	84.	3	0	3	20.	5.	9.	14.	
415	2	100980	6	205.	103.	3	0	3	26.	6.	10.	18.	
416	2	100980	6	134.	29.	3	0	1	11.	4.			
417	2	100980	6	226.	133.	3	0	3	24.	5.	12.	20.	
418	2	100980	6	208.	95.	3	0	3	32.	6.	14.	22.	
419	2	100980	6	135.	30.	3	0	2	19.	6.	11.		

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
420	2	100980	6	277.	281.	3	0	5	33.	5.	10.	16.	23.	29.
421	2	100980	6	233.	147.	3	0	3	34.	6.	18.	28.		
422	2	100980	6	215.	117.	3	0	3	25.	5.	11.	20.		
423	2	100980	6	157.	44.	3	0	2	14.	4.	8.			
424	2	100980	6	152.	40.	3	0	2	18.	4.	11.			
425	2	100980	6	177.	64.	3	0	3	25.	6.	10.	17.		
426	2	100980	6	241.	174.	3	0	4	28.	5.	10.	19.	23.	
427	2	100980	6	195.	82.	3	0	2	18.	5.	10.			
428	2	100980	6	308.	369.	3	0	4	28.	5.	10.	18.	23.	
429	2	100980	6	182.	67.	3	0	2	22.	5.	13.			
430	2	100980	6	227.	131.	3	0	3	26.	5.	11.	18.		
431	2	100980	6	193.	86.	3	0	3	30.	5.	10.	21.		
432	2	100980	6	173.	58.	3	0	3	22.	5.	9.	13.		
433	2	100980	6	178.	75.	3	0	2	18.	4.	10.			
434	2	100980	6	170.	54.	3	0	2	17.	6.	10.			
435	2	100980	6	235.	162.	3	0	4	31.	4.	7.	15.	25.	
436	2	100980	6	169.	52.	3	0	2	17.	6.	12.			
437	2	100980	6	156.	47.	3	0	2	18.	6.	10.			
438	2	100980	6	204.	100.	3	0	3	21.	3.	8.	15.		
439	2	100980	6	178.	63.	3	0	3	23.	6.	10.	13.		
440	2	100980	6	143.	31.	3	0	2	21.	5.	11.			
441	2	100980	6	164.	59.	3	0	2	19.	6.	12.			
442	2	100980	6	146.	34.	3	0	2	16.	4.	8.			
443	2	100980	6	253.	186.	3	0	3	29.	7.	13.	22.		
444	2	100980	6	167.	56.	3	0	2	15.	5.	9.			
445	2	100980	6	178.	62.	3	0	3	20.	5.	9.	14.		
446	2	100980	6	143.	35.	3	0	2	17.	5.	9.			
447	2	100980	6	198.	81.	3	0	2	23.	5.	13.			
448	2	100980	6	155.	45.	3	0	2	15.	5.	10.			
449	2	100980	6	160.	46.	3	0	2	17.	5.	10.			
450	2	100980	6	156.	48.	3	0	2	17.	4.	10.			
451	2	100980	6	157.	40.	3	0	2	20.	5.	10.			
452	2	100980	6	182.	74.	3	0	3	21.	4.	6.	13.		
453	2	100980	6	163.	47.	3	0	2	17.	6.	10.			
454	2	100980	6	180.	65.	3	0	2	19.	6.	11.			
455	2	100980	6	109.	18.	3	0	1	13.	5.				
456	2	100980	6	174.	64.	3	0	3	21.	5.	9.	15.		
457	2	100980	6	138.	32.	3	0	2	17.	4.	9.			
458	2	100980	6	185.	72.	3	0	3	21.	5.	11.	16.		
459	2	100980	6	187.	81.	3	0	3	22.	5.	11.	17.		
460	2	100980	6	166.	58.	3	0	2	13.	5.	9.			
461	2	100980	6	245.	178.	3	0	4	30.	3.	7.	13.	23.	
462	2	100980	6	161.	48.	3	0	2	20.	6.	10.			
463	2	100980	6	185.	65.	3	0	2	23.	4.	13.			
464	2	100980	6	211.	113.	3	0	3	23.	5.	9.	17.		
465	2	100980	6	175.	63.	3	0	2	17.	6.	11.			
466	2	100980	6	235.	150.	3	0	3	23.	4.	9.	15.		
467	2	100980	6	231.	151.	3	0	4	27.	5.	9.	15.	21.	
468	2	100980	6	196.	83.	3	0	3	17.	3.	7.	11.		
469	2	100980	6	235.	156.	3	0	3	22.	6.	11.	17.		
470	2	100980	6	269.	265.	3	0	4	25.	5.	10.	15.	20.	
471	2	100980	6	196.	99.	3	0	3	16.	4.	8.	12.		
472	2	100980	6	177.	60.	3	0	2	16.	5.	10.			
473	2	100980	6	147.	38.	3	0	2	16.	5.	9.			
474	2	100980	6	250.	197.	3	0	3	26.	6.	11.	20.		

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)					
475	2	100980	6	145.	32.	3	0	2	17.	5.	10.			
476	2	100980	6	255.	203.	3	0	3	33.	5.	12.	23.		
477	2	100980	6	253.	199.	3	0	4	32.	3.	8.	16.	25.	
478	2	100980	6	216.	129.	3	0	3	16.	4.	7.	12.		
479	2	100980	6	185.	70.	3	0	3	20.	4.	8.	15.		
480	2	100980	6	250.	182.	3	0	3	22.	4.	9.	16.		
481	2	100980	6	252.	200.	3	0	4	29.	6.	11.	17.	22.	
482	2	100980	6	146.	38.	3	0	2	17.	4.	9.			
483	2	100980	6	254.	205.	3	0	4	30.	5.	10.	17.	23.	
484	2	100980	6	180.	64.	3	0	3	22.	5.	11.	17.		
485	2	100980	6	244.	174.	3	0	4	31.	6.	11.	18.	25.	
486	2	100980	6	179.	63.	3	0	2	18.	5.	12.			
487	2	100980	6	142.	31.	3	0	2	17.	4.	8.			
488	2	100980	6	239.	166.	3	0	3	21.	5.	9.	15.		
489	2	100980	6	239.	160.	3	0	3	20.	4.	9.	15.		
490	2	100980	6	202.	101.	3	0	2	20.	7.	15.			
491	2	100980	6	218.	124.	3	0	3	20.	5.	11.	15.		
492	2	110980	6	267.	264.	3	0	3	25.	5.	11.	19.		
493	2	110980	6	207.	110.	3	0	3	22.	4.	9.	16.		
494	2	110980	6	202.	100.	3	0	3	19.	5.	8.	14.		
495	2	110980	6	98.	13.	3	0	1	6.	3.				
496	2	110980	6	92.	12.	3	0	1	7.	5.				
497	2	110980	6	244.	150.	3	0	3	22.	6.	12.	17.		
498	2	110980	6	284.	254.	3	0	3	25.	5.	11.	19.		
499	2	110980	6	277.	228.	3	0	3	22.	6.	12.	18.		
500	2	110980	6	340.	503.	3	0	4	37.	5.	12.	18.	25.	
501	2	110980	6	222.	117.	3	0	3	24.	5.	12.	19.		
502	2	110980	6	143.	33.	3	0	2	13.	3.	7.			
503	2	110980	6	113.	18.	3	0	1	14.	6.				
504	2	110980	6	90.	10.	3	0	1	9.	5.				
505	2	110980	6	230.	124.	3	0	4	26.	4.	9.	14.	18.	
506	2	110980	6	112.	18.	3	0	1	13.	8.				
507	2	110980	6	290.	330.	3	0	4	25.	5.	10.	17.	21.	
508	2	110980	6	223.	129.	3	0	3	24.	4.	10.	19.		
509	2	110980	6	235.	146.	3	0	3	23.	6.	12.	18.		
510	2	110980	6	246.	164.	3	0	3	25.	4.	9.	15.		
511	2	110980	6	259.	182.	3	0	4	27.	5.	11.	16.	21.	
512	2	110980	6	220.	122.	3	0	3	19.	5.	11.	15.		
513	2	110980	6	246.	182.	3	0	4	21.	3.	7.	11.	18.	
514	2	110980	6	224.	130.	3	0	3	22.	6.	11.	16.		
515	2	110980	6	217.	115.	3	0	3	30.	6.	13.	19.		
516	2	110980	6	118.	17.	3	0	1	12.	5.				
517	2	110980	6	136.	27.	3	0	2	13.	6.	7.			
518	2	110980	6	274.	231.	3	0	3	28.	5.	17.	23.		
519	2	110980	6	226.	140.	3	0	3	21.	6.	12.	17.		
520	2	110980	6	275.	262.	3	0	4	27.	5.	9.	16.	21.	
521	2	110980	6	261.	221.	3	0	4	24.	4.	8.	14.	20.	
522	2	110980	6	223.	130.	3	0	3	20.	4.	8.	15.		
523	2	110980	6	108.	17.	3	0	1	9.	4.				
524	2	110980	6	142.	31.	3	0	2	11.	4.	7.			
525	2	110980	6	267.	209.	3	0	4	27.	3.	6.	14.	21.	
526	2	110980	6	252.	183.	3	0	3	24.	5.	14.	20.		
527	2	110980	6	268.	238.	3	0	4	23.	5.	8.	13.	20.	
528	2	110980	6	368.	588.	3	0	5	29.	5.	10.	15.	20.	24.
529	2	110980	6	130.	25.	3	0	2	16.	5.	10.			

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)				
530	2	160980	6	166.	50.	3	0	2	20.	5.	11.		
531	2	180980	6	83.	8.	3	0	1	9.	5.			
532	2	180980	6	349.	544.	3	0	5	37.	5.	10.	20.	26.	32.
533	2	180980	6	346.	437.	3	0	4	36.	6.	11.	18.	26.	
534	2	180980	6	103.	12.	3	0	1	10.	6.				
535	2	180980	6	103.	13.	3	0	1	11.	5.				
536	2	180980	6	79.	6.	3	0	1	7.	5.				
537	2	180980	6	92.	8.	3	0	1	7.	4.				
538	2	180980	6	109.	14.	3	0	2	16.	5.	10.			
539	2	180980	6	334.	490.	3	0	5	31.	5.	11.	16.	21.	26.
540	2	180980	6	116.	17.	3	0	2	17.	4.	9.			
541	2	180980	6	122.	20.	3	0	2	17.	4.	8.			
542	2	180980	6	77.	7.	3	0	1	7.	4.				
543	2	180980	6	124.	20.	3	0	2	13.	4.	7.			
544	2	180980	6	302.	385.	3	0	5	36.	6.	11.	19.	27.	31.
545	2	180980	6	102.	12.	3	0	2	15.	5.	9.			
546	2	180980	6	75.	7.	3	0	1	11.	7.				
547	2	180980	6	98.	10.	3	0	1	10.	6.				
548	2	180980	6	72.	6.	3	0	1	9.	5.				
605	2	230680	9	78.	5.	3	0	1	8.	4.				

2(ii)

PROGRAM SCALES INPUT DATA GROWTH OF BROOK TROUT IN LITTLE GULL LAKE 1979

FISH NO.	LAKE NO.	DATE	METHOD	LENGTH(MM)	WEIGHT(G)	SEX	MATURITY	NO. ANNULI	MAGNIFIED SCALE AND ANNULI RADII (MM)		
392	3	240879	6	156.	51.	3	0	2	16.	5.	11.
573	3	240879	6	151.	45.	2	2	2	17.	6.	14.
572	3	220879	4	172.	52.	2	1	2	22.	9.	17.

APPENDIX 3: ATLANTIC SALMON LENGTH-SCALE RELATIONSHIPS

(i) Overall relationship 90

(ii) Spruce Pond - calculated lengths with overall relationship . . . 91

(iii) Spruce Pond - calculated lengths with own relationship 93

(iv) Headwater Pond - calculated lengths with overall relationship . . 95

(v) Headwater Pond - calculated lengths with own relationship . . . 96

(vi) Little Gull Lake - calculated lengths with overall relationship. . 97

(vii) Little Gull Lake - calculated lengths with own relationship . . 98

3(i)

PROGRAM SCALES TABLE ONE GROWTH OF SALMON IN SPRUCE POND , HEADWATER POND AND LITTLE GULL LAKE 1977-1980

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
1	M	1.	84.0	0.0	84.0	84.0	9.0	0.0	9.0	9.0	16.0	0.0	16.0	16.0
1	F													
1	ALL	30.	84.6	11.3	65.0	105.0	9.1	3.7	3.0	16.0	17.3	4.5	10.0	27.0
2	M	3.	104.7	5.0	100.0	110.0	11.0	1.0	10.0	12.0	23.0	2.6	21.0	26.0
2	F	6.	111.7	10.4	100.0	123.0	22.0	9.4	12.0	33.0	30.0	6.3	23.0	40.0
2	ALL	251.	109.8	19.0	68.0	167.0	17.7	8.8	4.0	50.0	23.9	6.8	11.0	46.0
3	M	40.	148.9	21.9	102.0	200.0	40.6	18.3	14.0	99.0	38.1	7.9	25.0	58.0
3	F	24.	155.4	26.1	111.0	197.0	48.1	22.4	16.0	94.0	41.5	9.1	27.0	58.0
3	ALL	457.	149.6	23.5	89.0	220.0	40.3	17.9	8.0	125.0	37.3	9.3	15.0	66.0
4	M	39.	174.7	13.6	153.0	202.0	60.0	19.4	27.0	107.0	46.1	9.6	27.0	72.0
4	F	42.	176.4	20.4	113.0	220.0	63.5	20.2	17.0	105.0	49.3	8.7	29.0	66.0
4	ALL	386.	184.5	22.8	113.0	268.0	69.4	35.6	17.0	551.0	46.9	9.9	26.0	82.0
5	M	7.	180.9	18.8	157.0	211.0	64.6	24.0	35.0	101.0	52.4	6.8	43.0	63.0
5	F	12.	222.7	47.9	177.0	368.0	135.8	140.0	60.0	575.0	62.8	16.9	45.0	108.0
5	ALL	121.	213.2	29.1	146.0	368.0	103.0	59.2	8.0	575.0	57.5	11.9	30.0	108.0
6	M	4.	246.2	58.3	206.0	332.0	174.0	163.1	80.0	418.0	60.5	11.8	45.0	73.0
6	F	4.	248.7	31.9	225.0	293.0	168.0	85.7	102.0	291.0	85.0	15.6	71.0	100.0
6	ALL	25.	248.2	35.1	206.0	332.0	164.6	82.2	80.0	418.0	70.5	12.1	45.0	100.0
7	M													
7	F													
7	ALL	1.	215.0	0.0	215.0	215.0	84.0	0.0	84.0	84.0	61.0	0.0	61.0	61.0
ALL	M	94.	164.0	32.4	84.0	332.0	54.8	44.6	9.0	418.0	42.7	11.2	16.0	73.0
ALL	F	88.	175.9	40.7	100.0	368.0	71.1	66.4	12.0	575.0	49.3	15.2	23.0	108.0
ALL	ALL	****	158.9	42.5	65.0	368.0	52.4	43.5	3.0	575.0	39.7	14.7	10.0	108.0

TOTAL NUMBER OF FISH 1271

NO. OF IMMATURE FISH 60

NO. OF MATURE FISH 21

AVE AGE (NO. ANNULI) 3.3 S.D. 1.0

CORRELATION COEFF. 0.8902

REGRESSION LINE:

LN LENGTH(MM) = 2.7593 + 0.630 (LN MAGNIFIED SCALE RADIUS (MM))

3(ii)

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN SPRUCE POND 1977-1980

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M	1.	67.0	0.0														
			67.0	67.0														
1	F																	
1	ALL	22.	57.6	8.2														
			43.9	78.4														
2	M	1.	65.9	0.0	99.6	0.0												
			65.9	65.9	99.6	99.6												
2	F	6.	63.3	7.7	93.4	9.4												
			51.2	72.9	84.3	105.8												
2	ALL	176.	55.4	9.4	88.3	13.5												
			34.0	89.2	60.8	144.8												
3	M	18.	61.1	10.3	94.0	12.9	134.6	17.0										
			41.2	85.4	65.9	109.1	107.2	165.9										
3	F	14.	59.5	8.3	94.7	10.1	137.8	20.2										
			41.1	74.2	79.7	117.1	104.3	173.6										
3	ALL	235.	57.3	10.8	91.9	15.5	126.9	22.1										
			35.0	102.9	55.9	149.4	80.3	190.5										
4	M	15.	61.8	10.4	97.0	15.1	127.3	15.9	161.2	11.7								
			42.6	82.1	69.2	122.7	95.2	150.7	138.8	186.4								
4	F	23.	65.5	10.8	97.2	13.6	133.6	17.2	160.9	19.1								
			46.7	84.9	72.4	129.1	102.5	162.7	126.1	195.8								
4	ALL	231.	58.0	9.9	92.3	13.2	130.2	18.0	166.4	20.1								
			31.6	84.9	60.8	132.5	83.2	184.0	112.4	233.5								
5	M	2.	55.1	17.7	85.8	7.7	114.2	7.1	156.4	2.5	179.9	2.3						
			42.6	67.6	80.4	91.2	109.1	119.2	154.7	158.2	178.3	181.6						
5	F	4.	56.7	12.9	99.9	25.9	160.7	41.5	201.9	55.2	232.6	78.7						
			43.3	74.3	66.8	130.1	132.8	222.2	161.5	282.8	180.6	349.4						
5	ALL	76.	58.7	11.4	93.3	16.4	129.6	24.0	166.4	28.8	195.4	32.3						
			35.5	109.8	59.4	151.3	87.1	222.2	106.0	282.8	130.2	349.4						
6	M	3.	59.1	5.8	89.9	4.5	131.7	22.1	179.0	15.9	206.7	11.3	241.7	35.8				
			53.9	65.3	84.7	93.4	118.6	157.2	169.4	197.3	194.0	215.7	214.0	282.1				
6	F																	
6	ALL	13.	58.9	6.4	91.3	11.3	127.2	18.8	166.1	20.0	194.3	24.0	222.3	28.1				
			44.4	68.8	64.9	112.7	101.3	157.2	132.9	198.4	163.9	232.7	184.5	282.1				
7	M																	
7	F																	
7	ALL	1.	59.2	0.0	80.5	0.0	112.5	0.0	156.5	0.0	169.6	0.0	194.3	0.0	215.0	0.0		
			59.2	59.2	80.5	80.5	112.5	112.5	156.5	156.5	169.6	169.6	194.3	194.3	215.0	215.0		
ALL	M	40.	61.2	9.9	94.6	13.1	130.4	16.8	163.4	13.2	196.0	16.7	241.7	35.8	0.0	0.0	0.0	0.0
			41.2	85.4	65.9	122.7	95.2	165.9	138.8	197.3	178.3	215.7	214.0	282.1	0.0	0.0	0.0	0.0
ALL	F	47.	62.7	10.1	96.2	13.2	137.6	22.1	167.0	29.7	232.6	78.7	0.0	0.0	0.0	0.0	0.0	0.0
			41.1	84.9	66.8	130.1	102.5	222.2	126.1	282.8	180.6	349.4	0.0	0.0	0.0	0.0	0.0	0.0

ALL	ALL 754.	57.3	10.2	91.3	14.4	128.6	20.7	166.4	22.4	194.9	31.1	220.3	28.0	215.0	0.0	0.0	0.0
		31.6	109.8	55.9	151.3	80.3	222.2	106.0	282.8	130.2	349.4	184.5	282.1	215.0	215.0	0.0	0.0

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN SPRUCE POND 1977-1980

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M	1.	66.8	0.0														
			66.8	66.8														
1	F																	
1	ALL	22.	57.3	8.3														
			43.6	78.3														
2	M	1.	65.5	0.0	99.5	0.0												
			65.5	65.5	99.5	99.5												
2	F	6.	62.8	7.7	93.2	9.4												
			50.7	72.4	84.1	105.6												
2	ALL	176.	55.0	9.4	88.1	13.5												
			33.5	88.7	60.5	144.6												
3	M	18.	60.5	10.3	93.6	12.9	134.4	17.0										
			40.7	84.9	65.5	108.5	107.1	165.6										
3	F	14.	58.9	8.3	94.2	10.0	137.6	20.2										
			40.6	73.5	79.4	116.6	104.2	173.4										
3	ALL	235.	56.7	10.8	91.5	15.5	126.7	22.1										
			34.6	102.4	55.5	149.2	80.0	190.5										
4	M	15.	61.2	10.4	96.5	15.2	126.9	16.0	161.1	11.8								
			42.0	81.5	68.7	122.2	94.6	150.3	138.6	186.3								
4	F	23.	64.9	10.8	96.6	13.6	133.2	17.2	160.7	19.2								
			46.1	84.3	71.8	128.6	102.0	162.4	125.8	195.7								
4	ALL	231.	57.4	9.9	91.7	13.2	129.8	18.0	166.3	20.1								
			31.1	84.3	60.2	131.8	82.6	183.6	112.2	233.3								
5	M	2.	54.5	17.7	85.1	7.7	113.6	7.1	156.1	2.6	179.8	2.3						
			42.0	67.0	79.7	90.6	108.6	118.7	154.3	157.9	178.2	181.4						
5	F	4.	56.0	12.8	99.2	25.8	160.1	41.3	201.6	55.1	232.4	78.7						
			42.7	73.4	66.1	129.1	132.3	221.4	161.2	282.2	180.4	349.3						
5	ALL	76.	58.1	11.4	92.7	16.4	129.0	24.1	166.0	28.9	195.2	32.4						
			35.0	109.1	58.7	150.6	86.5	221.4	105.6	282.2	130.1	349.3						
6	M	3.	58.4	5.7	89.1	4.6	131.1	22.2	178.5	16.1	206.3	11.1	241.6	35.6				
			53.2	64.5	83.9	92.7	118.0	156.7	169.1	197.0	193.9	215.0	214.0	281.8				
6	F																	
6	ALL	13.	58.2	6.3	90.6	11.3	126.5	18.8	165.6	20.1	194.0	24.0	222.1	28.1				
			43.8	68.1	64.2	111.9	100.6	156.7	132.4	197.9	163.5	232.4	184.3	281.8				
7	M																	
7	F																	
7	ALL	1.	58.5	0.0	79.8	0.0	111.9	0.0	156.1	0.0	169.3	0.0	194.1	0.0	215.0	0.0		
			58.5	58.5	79.8	79.8	111.9	111.9	156.1	156.1	169.3	169.3	194.1	194.1	215.0	215.0		
ALL	M	40.	60.6	9.9	94.1	13.1	130.1	16.9	163.2	13.2	195.7	16.5	241.6	35.6	0.0	0.0	0.0	0.0
			40.7	84.9	65.5	122.2	94.6	165.6	138.6	197.0	178.2	215.0	214.0	281.8	0.0	0.0	0.0	0.0
ALL	F	47.	62.1	10.1	95.7	13.1	137.3	22.0	166.8	29.6	232.4	78.7	0.0	0.0	0.0	0.0	0.0	0.0
			40.6	84.3	66.1	129.1	102.0	221.4	125.8	282.2	180.4	349.3	0.0	0.0	0.0	0.0	0.0	0.0

ALL	ALL 754.	56.7	10.1	90.8	14.4	128.3	20.7	166.1	22.4	194.7	31.1	220.1	28.0	215.0	0.0	0.0	0.0
		31.1	109.1	55.5	150.6	80.0	221.4	105.6	282.2	130.1	349.3	184.3	281.8	215.0	215.0	0.0	0.0

3(iv)

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN HEADWATER POND 1978-1980

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	4.	64.0	10.1														
			55.2	78.4														
2	M	2.	51.6	0.2	89.9	6.0												
			51.4	51.7	85.6	94.1												
2	F																	
2	ALL	55.	58.3	9.4	92.5	11.4												
			44.9	88.4	67.2	117.6												
3	M	20.	62.1	8.8	98.2	13.2	135.0	17.3										
			44.9	76.7	68.5	120.3	96.1	163.2										
3	F	9.	60.8	7.2	99.6	12.1	140.6	18.7										
			48.9	71.0	84.0	115.2	109.5	157.8										
3	ALL	191.	62.3	9.1	102.3	13.3	140.7	19.1										
			43.1	89.8	68.5	145.9	88.2	189.3										
4	M	23.	56.5	7.0	91.9	10.2	124.3	11.9	159.8	12.5								
			44.8	73.2	76.9	110.0	106.2	146.0	138.7	187.4								
4	F	19.	54.6	8.0	89.4	15.1	124.4	17.9	160.3	24.1								
			35.8	75.8	65.3	119.4	89.6	164.8	105.7	220.0								
4	ALL	144.	60.7	9.2	101.0	14.9	139.1	22.1	174.7	25.0								
			35.8	92.3	65.3	140.7	89.6	195.6	105.7	246.4								
5	M	5.	48.8	4.4	71.0	6.8	101.5	10.5	138.4	16.3	165.1	20.1						
			41.1	51.5	60.4	78.5	91.5	118.6	122.5	158.4	144.7	197.3						
5	F	8.	56.5	5.7	98.4	8.8	132.5	18.3	165.4	16.9	197.1	14.3						
			47.3	63.0	83.6	112.0	110.3	158.4	133.9	183.8	172.0	213.5						
5	ALL	42.	60.3	10.0	100.6	19.5	136.1	26.2	173.0	25.8	202.8	26.9						
			41.1	83.9	60.4	144.7	91.5	199.2	122.5	234.9	144.7	255.4						
6	M	1.	48.8	0.0	83.2	0.0	107.5	0.0	128.8	0.0	171.2	0.0	187.9	0.0				
			48.8	48.8	83.2	83.2	107.5	107.5	128.8	128.8	171.2	171.2	187.9	187.9				
6	F	4.	54.8	7.9	85.5	15.4	132.4	21.3	174.2	18.9	216.7	17.2	243.8	28.4				
			43.0	59.6	66.2	102.3	111.1	162.0	156.0	200.7	201.8	235.8	221.0	283.6				
6	ALL	9.	60.6	10.0	95.8	16.6	139.5	27.8	175.0	31.6	212.1	32.2	240.1	44.1				
			43.0	72.2	66.2	114.1	107.5	186.9	128.8	219.1	156.9	254.9	173.2	302.0				
ALL	M	51.	57.6	8.5	92.1	13.3	126.0	17.3	155.1	15.9	166.1	18.1	187.9	0.0	0.0	0.0	0.0	0.0
			41.1	76.7	60.4	120.3	91.5	163.2	122.5	187.4	144.7	197.3	187.9	187.9	0.0	0.0	0.0	0.0
ALL	F	40.	56.4	7.5	93.1	14.0	130.5	18.9	163.4	21.7	203.6	17.4	243.8	28.4	0.0	0.0	0.0	0.0
			35.8	75.8	65.3	119.4	89.6	164.8	105.7	220.0	172.0	235.8	221.0	283.6	0.0	0.0	0.0	0.0
ALL	ALL	445.	61.1	9.3	100.4	14.6	139.6	21.3	174.4	25.4	204.5	27.8	240.1	44.1	0.0	0.0	0.0	0.0
			35.8	92.3	60.4	145.9	88.2	199.2	105.7	246.4	144.7	255.4	173.2	302.0	0.0	0.0	0.0	0.0

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN HEADWATER POND 1978-1980

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN	FIRST MIN	FIRST S.D.	FIRST MAX	SECOND MEAN	SECOND MIN	SECOND S.D.	SECOND MAX	THIRD MEAN	THIRD MIN	THIRD S.D.	THIRD MAX	FOURTH MEAN	FOURTH MIN	FOURTH S.D.	FOURTH MAX	FIFTH MEAN	FIFTH MIN	FIFTH S.D.	FIFTH MAX	SIXTH MEAN	SIXTH MIN	SIXTH S.D.	SIXTH MAX	SEVENTH MEAN	SEVENTH MIN	SEVENTH S.D.	SEVENTH MAX	EIGHTH MEAN	EIGHTH MIN	EIGHTH S.D.	EIGHTH MAX
1	M																																	
1	F																																	
1	ALL	4.	65.3	56.8	9.6	79.0																												
2	M	2.	53.7	53.5	0.3	53.9	90.6	86.6	5.5	94.5																								
2	F																																	
2	ALL	55.	60.6	47.2	9.4	90.4	93.8	68.1	11.5	118.3																								
3	M	20.	64.9	47.7	8.9	79.6	100.3	70.3	13.2	122.2	135.7	96.6	17.2	163.5																				
3	F	9.	63.6	51.4	7.4	73.8	101.7	86.2	12.3	117.4	141.0	109.8	18.9	158.4																				
3	ALL	191.	65.1	45.7	9.1	92.9	104.5	70.3	13.3	148.5	141.4	90.1	19.0	190.5																				
4	M	23.	59.6	47.6	7.0	76.3	94.6	79.7	10.0	112.1	126.1	108.5	11.7	146.9	160.3	139.5	12.4	188.0																
4	F	19.	57.6	38.6	8.1	79.4	92.2	67.4	15.0	122.5	126.3	90.8	17.8	166.8	160.9	106.1	24.0	220.0																
4	ALL	144.	63.9	38.6	9.3	95.5	103.9	67.4	14.9	142.9	141.1	90.8	22.0	197.1	175.3	106.1	25.0	246.9																
5	M	5.	51.8	44.1	4.4	54.5	74.1	63.8	6.6	81.4	104.1	93.9	10.3	120.8	139.9	124.0	16.2	159.1	165.6	145.3	20.1	197.8												
5	F	8.	59.8	50.4	5.8	66.4	101.6	87.2	8.7	115.2	135.1	113.4	18.0	160.6	167.1	135.7	16.7	185.1	197.5	172.2	14.4	213.8												
5	ALL	42.	63.7	44.1	10.2	87.8	103.9	63.8	19.5	148.1	138.8	93.9	26.0	201.3	174.6	124.0	25.7	236.3	203.3	145.3	26.9	256.1												
6	M	1.	52.0	52.0	0.0	52.0	86.6	86.6	0.0	86.6	110.6	110.6	0.0	110.6	131.5	131.5	0.0	131.5	172.6	172.6	0.0	172.6	188.7	188.7	0.0	188.7								
6	F	4.	58.3	46.1	8.2	63.2	89.3	69.7	15.6	106.2	135.8	114.5	21.1	164.9	176.7	159.8	18.2	202.5	217.9	202.7	17.6	237.8	244.0	221.2	28.5	284.0								
6	ALL	9.	64.2	46.1	10.3	76.2	99.6	69.7	16.9	118.3	142.9	110.6	27.9	190.8	177.6	131.5	31.5	222.3	213.7	159.2	32.2	257.2	240.6	175.0	43.8	302.8								
ALL	M	51.	60.5	44.1	8.5	79.6	94.5	63.8	13.1	122.2	127.5	93.9	16.7	163.5	155.8	124.0	15.6	188.0	166.8	145.3	18.2	197.8	188.7	188.7	0.0	188.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	F	40.	59.5	38.6	7.6	79.4	95.9	67.4	13.9	122.5	132.3	90.8	18.7	166.8	164.5	106.1	21.8	220.0	204.3	172.2	17.8	237.8	244.0	221.2	28.5	284.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	445.	64.0	38.6	9.4	95.5	102.8	63.8	14.8	148.5	141.1	90.1	21.2	201.3	175.3	106.1	25.3	246.9	205.2	145.3	27.9	257.2	240.6	175.0	43.8	302.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3(vi)

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN LITTLE GULL LAKE 1979

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	4.	53.3	1.6														
			52.2	55.6														
2	M																	
2	F																	
2	ALL	20.	52.7	6.4	76.2	8.9												
			41.0	62.6	59.2	89.3												
3	M	2.	46.1	3.0	76.3	2.6	99.3	12.8										
			44.0	48.2	74.4	78.1	90.3	108.4										
3	F	1.	53.2	0.0	70.6	0.0	93.6	0.0										
			53.2	53.2	70.6	70.6	93.6	93.6										
3	ALL	31.	58.2	11.3	88.2	15.0	116.9	16.6										
			36.7	85.3	64.0	116.5	82.4	147.5										
4	M	1.	51.9	0.0	77.7	0.0	111.7	0.0	141.1	0.0								
			51.9	51.9	77.7	77.7	111.7	111.7	141.1	141.1								
4	F																	
4	ALL	11.	56.7	5.7	91.0	11.4	120.6	13.7	142.2	10.6								
			48.2	64.8	74.2	109.4	92.2	142.9	125.7	163.2								
5	M																	
5	F																	
5	ALL	3.	68.9	12.2	93.1	22.4	130.1	39.2	174.5	33.8	199.6	38.2						
			56.7	81.1	72.7	117.2	96.5	173.1	138.0	204.7	157.1	231.3						
6	M																	
6	F																	
6	ALL	3.	68.9	8.5	96.8	7.8	140.3	8.1	173.8	7.9	202.1	7.1	227.0	14.3				
			59.2	75.1	88.2	103.4	130.9	145.5	164.7	179.5	196.6	210.2	214.6	242.7				
ALL	M	3.	48.1	3.9	76.7	2.0	103.5	11.6	141.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			44.0	51.9	74.4	78.1	90.3	111.7	141.1	141.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	F	1.	53.2	0.0	70.6	0.0	93.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			53.2	53.2	70.6	70.6	93.6	93.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	72.	57.1	9.7	85.7	14.2	120.1	18.0	153.5	21.6	200.8	24.6	227.0	14.3	0.0	0.0	0.0	0.0
			36.7	85.3	59.2	117.2	82.4	173.1	125.7	204.7	157.1	231.3	214.6	242.7	0.0	0.0	0.0	0.0

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN LITTLE GULL LAKE 1979

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
1	M																	
1	F																	
1	ALL	4.	51.1	1.7														
			50.1	53.6														
2	M																	
2	F																	
2	ALL	20.	48.9	6.3	74.2	8.9												
			37.7	59.1	57.8	87.6												
3	M	2.	41.5	2.6	72.8	1.7	97.7	12.5										
			39.7	43.3	71.6	74.0	88.9	106.6										
3	F	1.	48.8	0.0	66.9	0.0	91.8	0.0										
			48.8	48.8	66.9	66.9	91.8	91.8										
3	ALL	31.	53.1	11.0	84.3	14.8	115.1	16.3										
			32.0	79.9	59.6	112.5	81.5	144.4										
4	M	1.	46.4	0.0	72.3	0.0	107.9	0.0	139.5	0.0								
			46.4	46.4	72.3	72.3	107.9	107.9	139.5	139.5								
4	F																	
4	ALL	11.	51.0	5.6	85.9	11.7	117.0	14.3	140.3	11.0								
			42.7	59.0	68.8	105.6	87.3	139.8	122.9	161.7								
5	M																	
5	F																	
5	ALL	3.	62.2	11.5	86.4	21.9	124.4	39.4	171.0	33.7	197.9	38.4						
			50.8	73.7	66.8	109.9	91.0	167.9	134.7	201.3	155.3	229.8						
6	M																	
6	F																	
6	ALL	3.	61.9	8.3	89.6	7.9	133.9	8.8	169.0	7.8	199.1	7.0	225.8	14.5				
			52.5	68.1	80.9	96.5	123.8	139.4	160.1	174.3	193.3	206.8	213.3	241.7				
ALL	M	3.	43.1	3.4	72.6	1.3	101.1	10.6	139.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			39.7	46.4	71.6	74.0	88.9	107.9	139.5	139.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	F	1.	48.8	0.0	66.9	0.0	91.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			48.8	48.8	66.9	66.9	91.8	91.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	72.	52.3	9.2	81.9	13.5	117.3	17.5	150.8	21.0	198.5	24.7	225.8	14.5	0.0	0.0	0.0	0.0
			32.0	79.9	57.8	112.5	81.5	167.9	122.9	201.3	155.3	229.8	213.3	241.7	0.0	0.0	0.0	0.0

APPENDIX 4: BROOK TROUT LENGTH-SCALE RELATIONSHIPS

(i) Overall relationship 100

(ii) Spruce Pond - calculated lengths with overall relationship . . . 101

(iii) Spruce Pond - calculated lengths with own relationship 102

(iv) Headwater Pond - calculated lengths with overall relationship . . 103

(v) Headwater Pond - calculated lengths with own relationship . . . 104

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PROGRAM SCALES TABLE ONE GROWTH OF BROOK TROUT IN SPRUCE AND HEADWATER PONDS 1977-1980

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
0	M													
0	F													
0	ALL	17.	54.8	6.6	39.0	68.0	5.4	3.1	1.0	16.0	7.1	1.5	5.0	10.0
1	M													
1	F													
1	ALL	196.	97.4	16.5	61.0	155.0	12.5	6.0	4.0	40.0	11.2	2.7	6.0	22.0
2	M	29.	176.0	20.9	146.0	236.0	69.3	26.8	47.0	180.0	20.7	3.0	15.0	27.0
2	F	37.	176.0	21.7	105.0	218.0	69.2	23.9	15.0	128.0	20.7	2.7	16.0	27.0
2	ALL	550.	159.7	28.5	97.0	255.0	51.5	27.9	9.0	192.0	18.1	3.9	8.0	31.0
3	M	34.	204.4	23.1	165.0	266.0	109.9	45.3	47.0	267.0	23.5	4.0	14.0	33.0
3	F	58.	204.2	24.7	148.0	257.0	114.8	46.0	33.0	237.0	23.6	3.9	14.0	35.0
3	ALL	578.	210.4	29.2	143.0	300.0	115.3	50.4	31.0	335.0	23.2	4.4	12.0	40.0
4	M	20.	255.1	39.5	190.0	335.0	219.5	117.7	80.0	534.0	30.1	5.8	24.0	48.0
4	F	35.	235.8	24.7	185.0	300.0	164.9	58.6	67.0	327.0	26.4	3.7	20.0	34.0
4	ALL	192.	254.2	32.3	181.0	346.0	202.2	84.6	67.0	534.0	27.8	4.8	18.0	50.0
5	M	2.	288.0	31.1	266.0	310.0	190.0	11.3	182.0	198.0	39.0	1.4	38.0	40.0
5	F	1.	340.0	0.0	340.0	340.0	568.0	0.0	568.0	568.0	39.0	0.0	39.0	39.0
5	ALL	28.	310.0	27.8	260.0	368.0	373.4	129.2	181.0	588.0	33.6	4.8	26.0	43.0
6	M													
6	F													
6	ALL	1.	328.0	0.0	328.0	328.0	497.0	0.0	497.0	497.0	38.0	0.0	38.0	38.0
ALL	M	85.	208.6	41.9	146.0	335.0	123.7	87.0	47.0	534.0	24.5	5.9	14.0	48.0
ALL	F	131.	205.7	34.5	105.0	340.0	118.7	69.4	15.0	568.0	23.6	4.3	14.0	39.0
ALL	ALL	****	183.9	57.2	39.0	368.0	94.3	83.9	1.0	588.0	20.5	6.6	5.0	50.0

TOTAL NUMBER OF FISH 1562

NO. OF IMMATURE FISH 31

NO. OF MATURE FISH 39

AVE AGE (NO. ANNULI) 2.5 S.D. 1.0

CORRELATION COEFF. 0.8860

REGRESSION LINE:

LN LENGTH(MM) = 2.5948 + 0.866 (LN MAGNIFIED SCALE RADIUS (MM))

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN SPRUCE POND 1977-1980

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	113.	63.8	12.2														
			35.6	103.6														
2	M	19.	79.9	20.7	136.8	20.5												
			39.0	111.1	108.0	189.6												
2	F	21.	87.0	15.9	146.4	16.6												
			51.3	114.1	122.9	190.3												
2	ALL	291.	68.6	16.7	124.3	21.4												
			30.1	114.1	78.8	201.7												
3	M	29.	64.0	11.1	121.0	17.2	176.1	20.9										
			38.6	90.3	87.2	155.8	146.6	217.0										
3	F	52.	66.9	17.0	119.4	21.6	173.5	20.8										
			41.5	119.8	80.4	188.0	135.2	220.8										
3	ALL	304.	65.1	14.2	120.8	21.2	174.1	22.7										
			33.7	119.8	73.9	188.0	118.6	236.8										
4	M	17.	67.7	13.6	125.3	23.3	170.3	31.9	218.3	31.7								
			49.6	96.6	87.3	164.9	128.0	229.1	165.8	291.4								
4	F	34.	62.5	10.3	118.0	15.6	166.8	19.4	207.5	23.0								
			46.1	92.9	92.6	158.9	142.2	210.5	155.9	246.1								
4	ALL	95.	62.9	11.5	119.0	18.6	172.7	23.9	217.7	25.7								
			37.7	96.6	77.1	164.9	120.1	232.8	155.9	291.4								
5	M	2.	64.6	10.4	103.3	4.2	157.1	7.7	206.7	2.4	273.8	11.0						
			57.2	71.9	100.3	106.3	151.7	162.6	205.0	208.4	266.0	281.6						
5	F																	
5	ALL	13.	58.6	11.9	111.7	20.5	174.3	18.5	223.5	18.2	282.9	19.6						
			37.0	74.7	81.0	149.7	148.8	209.9	187.1	249.7	243.3	308.0						
ALL	M	67.	69.5	16.1	126.0	20.8	173.3	25.0	217.0	30.2	273.8	11.0	0.0	0.0	0.0	0.0	0.0	0.0
			38.6	111.1	87.2	189.6	128.0	229.1	165.8	291.4	266.0	281.6	0.0	0.0	0.0	0.0	0.0	0.0
ALL	F	107.	69.5	17.3	124.3	21.8	170.9	20.4	207.5	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			41.5	119.8	80.4	190.3	135.2	220.8	155.9	246.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	816.	65.8	14.7	121.8	21.1	173.8	22.9	218.4	24.9	282.9	19.6	0.0	0.0	0.0	0.0	0.0	0.0
			30.1	119.8	73.9	201.7	118.6	236.8	155.9	291.4	243.3	308.0	0.0	0.0	0.0	0.0	0.0	0.0

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN SPRUCE POND 1977-1980

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	113.	65.2	12.0														
			37.4	104.6														
2	M	19.	82.3	20.5	138.0	20.4												
			41.4	113.0	109.9	191.2												
2	F	21.	89.5	15.8	147.5	16.4												
			53.9	116.8	124.2	191.0												
2	ALL	291.	71.1	16.7	125.6	21.3												
			32.1	116.8	80.6	202.9												
3	M	29.	66.9	11.2	123.4	17.1	177.2	20.8										
			41.0	92.8	89.7	157.9	147.5	218.5										
3	F	52.	69.8	17.1	121.9	21.5	174.6	20.7										
			43.9	122.9	82.6	189.6	135.7	221.7										
3	ALL	304.	68.0	14.3	123.2	21.1	175.2	22.6										
			36.1	122.9	76.4	189.6	120.1	238.7										
4	M	17.	70.9	13.9	128.4	23.5	172.5	31.9	219.2	31.8								
			52.4	100.2	90.0	168.8	130.0	231.9	166.7	292.7								
4	F	34.	65.6	10.5	121.1	15.7	168.9	19.3	208.4	22.9								
			48.9	96.7	95.5	161.9	144.3	212.3	157.2	246.8								
4	ALL	95.	66.1	11.7	122.1	18.7	174.9	23.8	218.6	25.6								
			40.3	100.2	80.5	168.8	122.1	234.5	157.2	292.7								
5	M	2.	68.0	10.7	107.0	4.5	160.4	8.1	209.1	3.1	274.3	11.7						
			60.4	75.5	103.8	110.1	154.7	166.1	206.9	211.2	266.0	282.5						
5	F																	
5	ALL	13.	61.9	12.2	115.5	20.6	177.7	18.4	225.9	18.2	283.7	19.5						
			39.8	78.4	84.9	153.6	152.1	213.0	189.7	251.8	244.5	308.0						
ALL	M	67.	72.3	16.1	128.3	20.6	174.8	24.9	218.1	30.1	274.3	11.7	0.0	0.0	0.0	0.0	0.0	0.0
			41.0	113.0	89.7	191.2	130.0	231.9	166.7	292.7	266.0	282.5	0.0	0.0	0.0	0.0	0.0	0.0
ALL	F	107.	72.3	17.3	126.6	21.4	172.4	20.3	208.4	22.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			43.9	122.9	82.6	191.0	135.7	221.7	157.2	246.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	816.	68.4	14.8	123.9	20.9	175.2	22.8	219.5	24.9	283.7	19.5	0.0	0.0	0.0	0.0	0.0	0.0
			32.1	122.9	76.4	202.9	120.1	238.7	157.2	292.7	244.5	308.0	0.0	0.0	0.0	0.0	0.0	0.0

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN HEADWATER POND 1978-1980

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	83.	60.3	10.9														
			39.1	90.9														
2	M	10.	77.6	13.4	143.2	19.9												
			56.2	97.7	110.6	167.5												
2	F	16.	76.2	13.1	136.8	23.1												
			50.7	96.2	90.0	161.7												
2	ALL	259.	65.7	15.7	121.1	26.9												
			34.6	117.4	52.6	198.4												
3	M	5.	68.4	5.2	132.8	10.7	173.3	14.8										
			63.0	74.7	114.7	139.7	155.0	194.7										
3	F	6.	63.5	11.6	119.5	5.7	175.7	15.7										
			42.6	78.2	111.3	126.6	160.4	205.4										
3	ALL	274.	63.4	14.3	120.1	25.6	177.2	28.1										
			35.8	121.3	60.9	212.8	111.2	263.1										
4	M	3.	64.4	8.9	113.5	10.2	189.5	25.6	252.9	36.0								
			59.1	74.6	101.7	120.3	163.0	214.1	212.6	282.1								
4	F	1.	66.1	0.0	137.0	0.0	200.3	0.0	242.0	0.0								
			66.1	66.1	137.0	137.0	200.3	200.3	242.0	242.0								
4	ALL	97.	60.2	14.4	114.3	24.1	171.9	26.2	222.6	26.7								
			34.0	114.8	67.9	184.2	119.9	238.1	166.6	282.1								
5	M																	
5	F	1.	55.5	0.0	146.3	0.0	171.8	0.0	205.1	0.0	253.8	0.0						
			55.5	55.5	146.3	146.3	171.8	171.8	205.1	205.1	253.8	253.8						
5	ALL	15.	60.3	9.1	115.1	18.3	169.2	18.8	224.0	18.8	274.3	24.8						
			35.9	72.3	86.5	146.3	134.7	200.3	188.7	255.3	231.9	306.1						
6	M																	
6	F																	
6	ALL	1.	45.3	0.0	136.3	0.0	178.3	0.0	227.0	0.0	266.4	0.0	305.1	0.0				
			45.3	45.3	136.3	136.3	178.3	178.3	227.0	227.0	266.4	266.4	305.1	305.1				
ALL	M	18.	72.9	11.9	135.4	19.3	179.3	19.5	252.9	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			56.2	97.7	101.7	167.5	155.0	214.1	212.6	282.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	F	24.	71.7	13.6	132.8	20.5	178.3	16.0	223.6	26.1	253.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			42.6	96.2	90.0	161.7	160.4	205.4	205.1	242.0	253.8	253.8	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	729.	63.4	14.5	119.6	25.8	175.6	27.3	222.8	25.6	273.8	24.0	305.1	0.0	0.0	0.0	0.0	0.0
			34.0	121.3	52.6	212.8	111.2	263.1	166.6	282.1	231.9	306.1	305.1	305.1	0.0	0.0	0.0	0.0

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN HEADWATER POND 1978-1980

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN MIN	FIRST S.D. MAX	SECOND MEAN MIN	SECOND S.D. MAX	THIRD MEAN MIN	THIRD S.D. MAX	FOURTH MEAN MIN	FOURTH S.D. MAX	FIFTH MEAN MIN	FIFTH S.D. MAX	SIXTH MEAN MIN	SIXTH S.D. MAX	SEVENTH MEAN MIN	SEVENTH S.D. MAX	EIGHTH MEAN MIN	EIGHTH S.D. MAX
1	M																	
1	F																	
1	ALL	83.	59.0	10.9														
			37.8	89.2														
2	M	10.	75.1	13.3	141.8	20.1												
			53.8	95.3	108.6	166.2												
2	F	16.	73.8	12.9	135.5	23.1												
			48.9	93.8	89.3	160.9												
2	ALL	259.	63.4	15.6	119.8	27.0												
			32.5	114.6	50.7	196.7												
3	M	5.	65.8	5.3	130.9	10.8	172.5	14.8										
			60.4	72.1	112.6	137.6	153.9	193.7										
3	F	6.	60.9	11.5	117.2	5.9	174.7	15.5										
			40.2	75.7	108.5	124.3	160.0	204.3										
3	ALL	274.	60.7	14.1	117.7	25.6	176.0	28.2										
			33.6	117.9	58.8	210.5	109.2	262.0										
4	M	3.	61.3	8.6	110.0	10.2	186.7	26.0	251.5	36.6								
			56.2	71.3	98.4	116.9	160.0	212.0	210.5	280.8								
4	F	1.	63.3	0.0	134.4	0.0	199.0	0.0	242.0	0.0								
			63.3	63.3	134.4	134.4	199.0	199.0	242.0	242.0								
4	ALL	97.	57.4	14.1	111.3	24.1	169.6	26.3	221.5	26.8								
			31.8	111.6	65.0	181.0	117.0	236.1	164.8	280.8								
5	M																	
5	F	1.	52.5	0.0	142.5	0.0	168.2	0.0	202.0	0.0	251.5	0.0						
			52.5	52.5	142.5	142.5	168.2	168.2	202.0	202.0	251.5	251.5						
5	ALL	15.	57.3	8.9	111.5	18.2	166.0	18.6	221.7	18.7	273.2	24.8						
			33.5	68.9	83.1	142.5	131.8	196.9	186.7	252.5	231.0	304.9						
6	M																	
6	F																	
6	ALL	1.	42.6	0.0	132.7	0.0	175.0	0.0	224.4	0.0	264.7	0.0	304.4	0.0				
			42.6	42.6	132.7	132.7	175.0	175.0	224.4	224.4	264.7	264.7	304.4	304.4				
ALL	M	18.	70.2	12.0	133.5	19.8	177.8	19.3	251.5	36.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			53.8	95.3	98.4	166.2	153.9	212.0	210.5	280.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	F	24.	69.2	13.6	131.1	20.6	176.9	16.0	222.0	28.3	251.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			40.2	93.8	89.3	160.9	160.0	204.3	202.0	242.0	251.5	251.5	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	729.	61.0	14.4	117.5	26.0	174.0	27.5	221.5	25.6	272.7	24.0	304.4	0.0	0.0	0.0	0.0	0.0
			31.8	117.9	50.7	210.5	109.2	262.0	164.8	280.8	231.0	304.9	304.4	304.4	0.0	0.0	0.0	0.0

APPENDIX 5: ATLANTIC SALMON FROM SPRUCE POND BY YEAR-CLASS AND YEAR OF CAPTURE

(i) 1977 with overall intercept 106

(ii) 1978 with overall intercept 107

(iii) 1979 with overall intercept 108

(iv) 1980 with overall intercept 110

(v) 1977 with own intercept 111

(vi) 1978 with own intercept 112

(vii) 1979 with own intercept 113

(viii) 1980 with own intercept 115

5(i)

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN SPRUCE POND 1977 (FYKENETTED FISH ONLY)

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN MIN	FIRST S.D. MAX	SECOND MEAN MIN	SECOND S.D. MAX	THIRD MEAN MIN	THIRD S.D. MAX	FOURTH MEAN MIN	FOURTH S.D. MAX	FIFTH MEAN MIN	FIFTH S.D. MAX	SIXTH MEAN MIN	SIXTH S.D. MAX	SEVENTH MEAN MIN	SEVENTH S.D. MAX	EIGHTH MEAN MIN	EIGHTH S.D. MAX
1	M	1.	67.0	0.0														
			67.0	67.0														
1	F																	
1	ALL	4.	51.9	10.3														
			43.9	67.0														
2	M	1.	65.9	0.0	99.6	0.0												
			65.9	65.9	99.6	99.6												
2	F	6.	63.3	7.7	93.4	9.4												
			51.2	72.9	84.3	105.8												
2	ALL	10.	63.3	12.4	93.9	22.4												
			48.5	89.2	62.8	144.8												
3	M	3.	73.5	10.4	103.3	8.9	147.9	12.5										
			66.3	85.4	93.1	108.5	139.1	162.2										
3	F	2.	52.7	4.4	89.5	13.8	128.4	34.1										
			49.5	55.8	79.7	99.2	104.3	152.5										
3	ALL	13.	70.1	15.1	107.9	16.3	147.1	18.1										
			49.5	102.9	79.7	149.4	104.3	169.9										
4	M	1.	59.7	0.0	89.2	0.0	120.5	0.0	158.9	0.0								
			59.7	59.7	89.2	89.2	120.5	120.5	158.9	158.9								
4	F	2.	63.5	2.3	99.2	3.4	140.1	5.9	164.6	6.6								
			61.9	65.2	96.8	101.6	135.9	144.3	160.0	169.3								
4	ALL	7.	67.3	7.6	100.3	8.8	137.1	10.3	168.2	10.0								
			59.7	79.1	89.2	114.2	120.5	153.9	158.9	187.1								
5	M																	
5	F																	
5	ALL	1.	109.8	0.0	151.3	0.0	184.5	0.0	229.6	0.0	251.9	0.0						
			109.8	109.8	151.3	151.3	184.5	184.5	229.6	229.6	251.9	251.9						
ALL	M	6.	68.9	8.7	99.7	8.8	141.0	17.1	158.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			59.7	85.4	89.2	108.5	120.5	162.2	158.9	158.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	F	10.	61.2	7.5	93.8	9.1	134.3	21.1	164.6	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			49.5	72.9	79.7	105.8	104.3	152.5	160.0	169.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	35.	66.6	15.1	103.1	19.7	145.6	18.2	175.9	23.6	251.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			43.9	109.8	62.8	151.3	104.3	184.5	158.9	229.6	251.9	251.9	0.0	0.0	0.0	0.0	0.0	0.0

5(ii)

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN SPRUCE POND 1978 (FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
1	M																	
1	F																	
1	ALL	8.	56.9	9.8														
			47.8	78.4														
2	M																	
2	F																	
2	ALL	86.	51.6	8.7	84.3	12.9												
			34.0	72.3	60.8	125.7												
3	M																	
3	F																	
3	ALL	70.	50.4	9.1	83.2	15.4	112.2	22.3										
			35.0	78.9	55.9	136.9	80.3	190.5										
4	M																	
4	F																	
4	ALL	75.	54.0	9.4	89.1	12.9	128.2	19.4	165.8	22.3								
			31.6	80.8	63.2	128.8	91.1	174.1	112.4	220.7								
5	M																	
5	F																	
5	ALL	30.	55.0	8.3	88.5	14.5	123.5	20.5	154.7	23.8	183.9	27.7						
			35.5	68.2	59.4	121.9	87.1	165.0	106.0	209.6	130.2	254.9						
6	M																	
6	F																	
6	ALL	1.	44.4	0.0	64.9	0.0	101.3	0.0	134.6	0.0	166.5	0.0	185.2	0.0				
			44.4	44.4	64.9	64.9	101.3	101.3	134.6	134.6	166.5	166.5	185.2	185.2				
ALL	M																	
ALL	F																	
ALL	ALL	270.	52.5	9.1	85.8	14.0	120.9	21.9	162.4	23.3	183.3	27.4	185.2	0.0	0.0	0.0	0.0	0.0
			31.6	80.8	55.9	136.9	80.3	190.5	106.0	220.7	130.2	254.9	185.2	185.2	0.0	0.0	0.0	0.0

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN SPRUCE POND 1979 (FYKENETTED FISH ONLY)

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	4.	60.4	5.9														
			51.7	63.9														
2	M																	
2	F																	
2	ALL	37.	57.3	8.2	86.7	9.8												
			44.2	79.7	67.4	107.2												
3	M	5.	53.2	6.1	90.2	10.2	121.0	12.2										
			47.6	61.7	73.6	98.4	107.2	139.5										
3	F	2.	53.2	17.1	96.8	16.5	121.9	13.8										
			41.1	65.2	85.2	108.5	112.1	131.6										
3	ALL	76.	59.8	10.3	95.4	14.9	128.7	19.0										
			40.0	85.7	68.7	140.7	96.6	177.0										
4	M	2.	55.7	8.4	86.4	20.7	115.2	28.3	161.0	8.4								
			49.8	61.6	71.7	101.0	95.2	135.2	155.1	167.0								
4	F	1.	66.0	0.0	88.5	0.0	130.0	0.0	169.8	0.0								
			66.0	66.0	88.5	88.5	130.0	130.0	169.8	169.8								
4	ALL	53.	61.1	8.1	92.4	13.0	128.5	18.9	165.0	21.7								
			42.4	77.6	60.8	131.8	83.2	176.9	122.8	233.5								
5	M																	
5	F																	
5	ALL	25.	61.4	10.9	92.8	13.8	123.8	19.8	161.9	24.9	189.7	23.8						
			44.9	82.2	63.9	119.2	93.2	170.5	116.9	231.9	148.0	256.6						
6	M	1.	58.2	0.0	93.4	0.0	157.2	0.0	197.3	0.0	210.3	0.0	229.0	0.0				
			58.2	58.2	93.4	93.4	157.2	157.2	197.3	197.3	210.3	210.3	229.0	229.0				
6	F																	
6	ALL	8.	59.7	4.9	92.3	6.7	127.2	18.7	166.4	22.5	192.6	27.6	217.1	23.2				
			52.2	68.8	78.6	102.3	102.1	157.2	132.9	198.4	163.9	232.7	184.5	247.7				
7	M																	
7	F																	
7	ALL	1.	59.2	0.0	80.5	0.0	112.5	0.0	156.5	0.0	169.6	0.0	194.3	0.0	215.0	0.0		
			59.2	59.2	80.5	80.5	112.5	112.5	156.5	156.5	169.6	169.6	194.3	194.3	215.0	215.0		
ALL	M	8.	54.5	5.9	89.6	11.2	124.1	19.6	173.1	21.8	210.3	0.0	229.0	0.0	0.0	0.0	0.0	0.0
			47.6	61.7	71.7	101.0	95.2	157.2	155.1	197.3	210.3	210.3	229.0	229.0	0.0	0.0	0.0	0.0
ALL	F	3.	57.4	14.1	94.1	12.6	124.6	10.8	169.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			41.1	66.0	85.2	108.5	112.1	131.6	169.8	169.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ALL	ALL 204.	59.9	9.2	92.5	13.4	127.7	19.0	164.2	22.4	189.8	24.3	214.6	23.0	215.0	0.0	0.0	0.0
		40.0	85.7	60.8	140.7	83.2	177.0	116.9	233.5	148.0	256.6	184.5	247.7	215.0	215.0	0.0	0.0

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN SPRUCE POND 1980 (FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
1	M																	
1	F																	
1	ALL	6.	60.4	4.9														
			54.1	68.2														
2	M																	
2	F																	
2	ALL	43.	59.6	7.8	96.2	11.3												
			45.9	75.9	73.2	122.7												
3	M																	
3	F																	
3	ALL	55.	57.8	7.9	93.4	12.1	133.4	17.5										
			41.7	74.7	63.4	123.0	91.0	167.5										
4	M																	
4	F																	
4	ALL	63.	56.0	8.3	92.3	12.5	132.1	16.8	171.0	17.2								
			39.0	81.0	68.8	132.5	100.8	184.0	140.4	224.1								
5	M																	
5	F																	
5	ALL	14.	59.5	7.9	99.8	13.7	142.2	19.5	186.1	14.1	217.6	14.9						
			48.0	74.3	75.9	118.6	106.4	176.0	163.4	213.6	180.9	238.0						
6	M																	
6	F																	
6	ALL	2.	62.0	3.9	103.7	12.7	148.1	10.1	176.7	4.3	204.8	10.7	235.7	9.8				
			59.3	64.8	94.7	112.7	140.9	155.2	173.7	179.8	197.3	212.3	228.8	242.6				
ALL	M																	
ALL	F																	
ALL	ALL	183.	57.9	8.0	94.3	12.3	133.9	17.5	173.9	17.4	216.0	14.8	235.7	9.8	0.0	0.0	0.0	0.0
			39.0	81.0	63.4	132.5	91.0	184.0	140.4	224.1	180.9	238.0	228.8	242.6	0.0	0.0	0.0	0.0

5(v)

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN SPRUCE POND 1977 (FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
1	M	1.	58.8	0.0														
			58.8	58.8														
1	F																	
1	ALL	4.	41.7	11.9														
			32.4	58.8														
2	M	1.	51.1	0.0	94.8	0.0												
			51.1	51.1	94.8	94.8												
2	F	6.	47.9	7.7	85.9	11.4												
			35.5	57.4	71.4	99.6												
2	ALL	10.	48.4	10.2	87.4	21.8												
			35.5	69.0	59.6	136.6												
3	M	3.	54.0	11.6	86.9	9.1	144.5	11.5										
			45.0	67.1	76.7	94.4	136.7	157.7										
3	F	2.	34.2	1.8	73.2	9.2	122.7	32.8										
			32.9	35.5	66.7	79.7	99.5	146.0										
3	ALL	13.	50.0	14.5	91.6	17.4	141.7	17.8										
			32.9	82.3	66.7	138.5	99.5	165.7										
4	M	1.	39.1	0.0	69.0	0.0	105.4	0.0	155.7	0.0								
			39.1	39.1	69.0	69.0	105.4	105.4	155.7	155.7								
4	F	2.	42.3	2.7	78.7	2.3	127.7	4.7	160.2	5.2								
			40.3	44.2	77.1	80.4	124.4	131.1	156.5	163.8								
4	ALL	7.	45.6	7.0	79.4	9.4	122.6	10.8	163.0	10.1								
			39.0	56.9	68.6	95.0	105.4	139.3	154.9	182.4								
5	M																	
5	F																	
5	ALL	1.	81.6	0.0	125.5	0.0	164.0	0.0	219.9	0.0	249.1	0.0						
			81.6	81.6	125.5	125.5	164.0	164.0	219.9	219.9	249.1	249.1						
ALL	M	6.	51.8	9.9	84.9	11.5	134.7	21.7	155.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			39.1	67.1	69.0	94.8	105.4	157.7	155.7	155.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	F	10.	44.0	8.1	81.9	10.6	125.2	19.4	160.2	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			32.9	57.4	66.7	99.6	99.5	146.0	156.5	163.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	35.	48.6	12.7	88.6	18.7	136.4	18.6	170.1	22.2	249.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			32.4	82.3	59.6	138.5	99.5	165.7	154.9	219.9	249.1	249.1	0.0	0.0	0.0	0.0	0.0	0.0

5(vi)

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN SPRUCE POND 1978 (FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
1	M																	
1	F																	
1	ALL	8.	56.5	9.9														
			47.3	78.2														
2	M																	
2	F																	
2	ALL	86.	50.9	8.7	84.0	13.0												
			33.3	71.6	60.4	125.6												
3	M																	
3	F																	
3	ALL	70.	49.6	9.0	82.6	15.4	112.0	22.4										
			34.3	78.1	55.3	136.6	79.8	190.4										
4	M																	
4	F																	
4	ALL	75.	53.1	9.3	88.2	12.9	127.6	19.5	165.7	22.4								
			30.8	79.7	62.3	128.1	90.3	173.6	112.1	220.7								
5	M																	
5	F																	
5	ALL	30.	54.1	8.3	87.5	14.5	122.7	20.6	154.2	23.9	183.6	27.8						
			34.7	67.2	58.4	121.0	86.2	164.5	105.4	208.9	130.0	254.5						
6	M																	
6	F																	
6	ALL	1.	43.5	0.0	63.8	0.0	100.3	0.0	133.7	0.0	165.9	0.0	184.7	0.0				
			43.5	43.5	63.8	63.8	100.3	100.3	133.7	133.7	165.9	165.9	184.7	184.7				
ALL	M																	
ALL	F																	
ALL	ALL	270.	51.7	9.1	85.2	14.0	120.4	21.9	162.1	23.4	183.0	27.6	184.7	0.0	0.0	0.0	0.0	0.0
			30.8	79.7	55.3	136.6	79.8	190.4	105.4	220.7	130.0	254.5	184.7	184.7	0.0	0.0	0.0	0.0

5(vii)

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN SPRUCE POND 1979 (FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
1	M																	
1	F																	
1	ALL	4.	60.9	5.9														
			52.1	64.2														
2	M																	
2	F																	
2	ALL	37.	57.8	8.1	86.9	9.8												
			44.7	80.1	67.5	107.4												
3	M	5.	53.9	6.1	90.6	10.1	121.2	12.2										
			48.2	62.4	74.1	98.8	107.3	139.7										
3	F	2.	53.9	17.1	97.3	16.6	122.0	13.9										
			41.8	66.0	85.6	109.0	112.2	131.9										
3	ALL	76.	60.5	10.3	95.9	14.9	128.9	19.0										
			40.7	86.5	69.2	140.9	97.0	177.2										
4	M	2.	56.5	8.3	87.1	20.6	115.8	28.0	161.3	8.1								
			50.6	62.4	72.6	101.7	96.0	135.6	155.5	167.0								
4	F	1.	66.8	0.0	89.3	0.0	130.5	0.0	169.9	0.0								
			66.8	66.8	89.3	89.3	130.5	130.5	169.9	169.9								
4	ALL	53.	61.9	8.1	93.1	13.0	129.0	18.9	165.2	21.7								
			43.1	78.3	61.6	132.5	83.9	177.5	122.9	233.7								
5	M																	
5	F																	
5	ALL	25.	62.3	10.9	93.6	13.8	124.5	19.8	162.3	24.8	189.9	23.8						
			45.6	83.2	64.7	120.1	93.9	171.1	117.5	232.2	148.1	256.7						
6	M	1.	59.1	0.0	94.3	0.0	157.9	0.0	197.7	0.0	210.5	0.0	229.0	0.0				
			59.1	59.1	94.3	94.3	157.9	157.9	197.7	197.7	210.5	210.5	229.0	229.0				
6	F																	
6	ALL	8.	60.6	5.0	93.3	6.7	128.1	18.6	167.1	22.5	193.0	27.5	217.3	23.2				
			53.1	69.7	79.5	103.1	102.9	157.9	133.7	199.0	164.5	233.0	184.7	247.9				
7	M																	
7	F																	
7	ALL	1.	60.0	0.0	81.4	0.0	113.3	0.0	157.1	0.0	170.1	0.0	194.5	0.0	215.0	0.0		
			60.0	60.0	81.4	81.4	113.3	113.3	157.1	157.1	170.1	170.1	194.5	194.5	215.0	215.0		
ALL	M	8.	55.2	5.9	90.2	11.2	124.4	19.6	173.4	21.8	210.5	0.0	229.0	0.0	0.0	0.0	0.0	0.0
			48.2	62.4	72.6	101.7	96.0	157.9	155.5	197.7	210.5	210.5	229.0	229.0	0.0	0.0	0.0	0.0
ALL	F	3.	58.2	14.2	94.6	12.6	124.9	11.0	169.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			41.8	66.8	85.6	109.0	112.2	131.9	169.9	169.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ALL	ALL	204.	60.6	9.3	93.0	13.4	128.1	18.9	164.4	22.4	190.0	24.2	214.7	23.0	215.0	0.0	0.0	0.0
			40.7	86.5	61.6	140.9	83.9	177.5	117.5	233.7	148.1	256.7	184.7	247.9	215.0	215.0	0.0	0.0

5(viii)

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN SPRUCE POND 1980 (FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
1	M																	
1	F																	
1	ALL	6.	59.7	5.0														
			53.2	67.5														
2	M																	
2	F																	
2	ALL	43.	58.7	7.9	95.7	11.3												
			44.9	75.0	72.4	122.0												
3	M																	
3	F																	
3	ALL	55.	56.7	7.9	92.5	12.1	133.1	17.5										
			40.8	73.6	62.6	122.3	90.8	166.9										
4	M																	
4	F																	
4	ALL	63.	54.7	8.3	91.1	12.5	131.2	16.9	170.7	17.2								
			38.0	79.7	67.7	131.2	99.8	183.2	140.1	223.7								
5	M																	
5	F																	
5	ALL	14.	58.1	7.8	98.4	13.8	141.0	19.6	185.5	14.2	217.4	15.0						
			46.7	72.9	74.5	117.2	104.9	175.2	162.9	213.3	180.7	238.0						
6	M																	
6	F																	
6	ALL	2.	60.6	3.9	102.1	12.6	146.6	10.3	175.5	4.6	203.8	11.0	235.2	10.2				
			57.8	63.3	93.1	111.0	139.3	153.9	172.3	178.7	196.0	211.6	227.9	242.4				
ALL	M																	
ALL	F																	
ALL	ALL	183.	56.7	8.0	93.3	12.3	133.3	17.5	173.5	17.4	215.7	15.0	235.2	10.2	0.0	0.0	0.0	0.0
			38.0	79.7	62.6	131.2	90.8	183.2	140.1	223.7	180.7	238.0	227.9	242.4	0.0	0.0	0.0	0.0

APPENDIX 6: ATLANTIC SALMON FROM HEADWATER POND BY YEAR-CLASS AND YEAR OF CAPTURE

(i) 1978 with overall intercept 117

(ii) 1979 with overall intercept 118

(iii) 1980 with overall intercept 119

(iv) 1978 with own intercept 120

(v) 1979 with own intercept 121

(vi) 1980 with own intercept 122

6(i)

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN HEADWATER POND 1978 (TRAP AND FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	2.	58.9	5.1														
			55.2	62.5														
2	M																	
2	F																	
2	ALL	15.	58.1	10.3	94.9	12.0												
			44.9	83.0	77.9	114.6												
3	M																	
3	F																	
3	ALL	5.	55.5	10.2	88.9	15.7	113.3	22.8										
			43.4	69.9	72.4	114.8	88.2	148.8										
5	M																	
5	F																	
5	ALL	1.	48.1	0.0	77.9	0.0	98.6	0.0	131.0	0.0	154.2	0.0						
			48.1	48.1	77.9	77.9	98.6	98.6	131.0	131.0	154.2	154.2						
6	M																	
6	F																	
6	ALL	2.	67.3	3.9	105.1	11.4	131.7	19.7	163.4	42.1	188.8	45.1	205.3	45.3				
			64.5	70.0	97.0	113.1	117.8	145.6	133.6	193.1	156.9	220.7	173.2	237.3				
ALL	M																	
ALL	F																	
ALL	ALL	25.	58.0	9.7	93.8	13.1	116.1	21.7	152.6	35.2	177.3	37.6	205.3	45.3	0.0	0.0	0.0	0.0
			43.4	83.0	72.4	114.8	88.2	148.8	131.0	193.1	154.2	220.7	173.2	237.3	0.0	0.0	0.0	0.0

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN HEADWATER POND 1979 (FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
2	M	2.	51.6	0.2	89.9	6.0												
			51.4	51.7	85.6	94.1												
2	F																	
2	ALL	23.	61.0	10.4	94.7	10.2												
			49.2	88.4	78.4	117.6												
3	M	16.	61.5	9.0	98.9	13.3	136.2	17.7										
			44.9	76.7	68.5	120.3	96.1	163.2										
3	F	8.	60.2	7.5	100.2	12.8	138.4	18.8										
			48.9	71.0	84.0	115.2	109.5	156.7										
3	ALL	138.	62.1	9.3	103.9	13.5	142.2	18.7										
			43.1	89.8	68.5	145.9	96.1	189.3										
4	M	11.	58.1	8.0	93.1	12.6	123.3	14.0	153.3	11.3								
			46.6	73.2	76.9	110.0	106.2	146.0	138.7	171.5								
4	F	10.	53.4	7.6	89.3	14.7	120.7	18.0	149.4	18.8								
			35.8	60.4	65.3	107.9	89.6	147.8	105.7	172.2								
4	ALL	60.	60.7	9.8	101.0	16.8	137.4	24.7	167.5	25.6								
			35.8	92.3	65.3	140.7	89.6	193.0	105.7	222.3								
5	M	1.	50.6	0.0	73.4	0.0	118.6	0.0	158.4	0.0	168.3	0.0						
			50.6	50.6	73.4	73.4	118.6	118.6	158.4	158.4	168.3	168.3						
5	F	1.	49.2	0.0	95.4	0.0	115.6	0.0	133.9	0.0	172.0	0.0						
			49.2	49.2	95.4	95.4	115.6	115.6	133.9	133.9	172.0	172.0						
5	ALL	12.	62.5	9.3	104.5	22.1	136.6	28.4	169.5	24.3	196.6	24.7						
			49.2	83.9	73.4	144.7	104.8	199.2	132.5	217.3	168.3	249.0						
6	M																	
6	F	1.	59.6	0.0	102.3	0.0	162.0	0.0	200.7	0.0	226.8	0.0	244.7	0.0				
			59.6	59.6	102.3	102.3	162.0	162.0	200.7	200.7	226.8	226.8	244.7	244.7				
6	ALL	1.	59.6	0.0	102.3	0.0	162.0	0.0	200.7	0.0	226.8	0.0	244.7	0.0				
			59.6	59.6	102.3	102.3	162.0	162.0	200.7	200.7	226.8	226.8	244.7	244.7				
ALL	M	30.	59.3	8.6	95.3	13.3	130.5	17.1	153.7	10.9	168.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			44.9	76.7	68.5	120.3	96.1	163.2	138.7	171.5	168.3	168.3	0.0	0.0	0.0	0.0	0.0	0.0
ALL	F	20.	56.2	7.9	94.6	14.0	129.6	20.6	152.4	23.2	199.4	38.7	244.7	0.0	0.0	0.0	0.0	0.0
			35.8	71.0	65.3	115.2	89.6	162.0	105.7	200.7	172.0	226.8	244.7	244.7	0.0	0.0	0.0	0.0
ALL	ALL	234.	61.6	9.5	102.3	14.8	140.6	21.2	168.3	25.3	198.9	25.1	244.7	0.0	0.0	0.0	0.0	0.0
			35.8	92.3	65.3	145.9	89.6	199.2	105.7	222.3	168.3	249.0	244.7	244.7	0.0	0.0	0.0	0.0

6(iii)

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN HEADWATER POND 1980 (FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	2.	69.1	13.1														
			59.9	78.4														
2	M																	
2	F																	
2	ALL	14.	55.3	6.3	91.0	9.3												
			44.9	65.9	77.2	109.6												
3	M																	
3	F																	
3	ALL	41.	63.4	8.2	99.9	11.1	140.8	17.3										
			48.9	79.7	76.9	119.3	106.4	168.4										
4	M																	
4	F																	
4	ALL	62.	62.3	8.6	104.5	12.0	144.8	19.9	183.4	24.2								
			46.0	89.6	80.5	134.8	110.5	195.6	132.0	246.4								
5	M																	
5	F	1.	57.6	0.0	95.5	0.0	144.6	0.0	170.9	0.0	209.8	0.0						
			57.6	57.6	95.5	95.5	144.6	144.6	170.9	170.9	209.8	209.8						
5	ALL	17.	63.2	10.1	105.8	16.9	148.9	20.8	189.8	19.2	222.0	18.3						
			48.7	81.1	78.8	135.3	122.6	188.1	153.1	234.9	180.3	255.4						
6	M																	
6	F																	
6	ALL	2.	71.2	1.4	113.3	1.1	177.6	13.2	211.2	11.1	246.6	11.8	293.5	12.0				
			70.3	72.2	112.5	114.1	168.2	186.9	203.4	219.1	238.3	254.9	285.0	302.0				
ALL	M																	
ALL	F	1.	57.6	0.0	95.5	0.0	144.6	0.0	170.9	0.0	209.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			57.6	57.6	95.5	95.5	144.6	144.6	170.9	170.9	209.8	209.8	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	138.	62.3	8.8	102.0	12.8	144.6	19.6	185.5	23.4	224.6	19.1	293.5	12.0	0.0	0.0	0.0	0.0
			44.9	89.6	76.9	135.3	106.4	195.6	132.0	246.4	180.3	255.4	285.0	302.0	0.0	0.0	0.0	0.0

6(iv)

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN HEADWATER POND 1978 (TRAP AND FYKENETTED FISH ONLY)

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	2.	59.3	5.1														
			55.7	62.9														
2	M																	
2	F																	
2	ALL	15.	58.8	10.3	95.3	12.0												
			45.6	83.7	78.3	114.8												
3	M																	
3	F																	
3	ALL	5.	56.4	10.2	89.6	15.7	113.7	22.6										
			44.2	70.8	73.1	115.4	88.8	149.0										
5	M																	
5	F																	
5	ALL	1.	49.1	0.0	78.8	0.0	99.5	0.0	131.6	0.0	154.6	0.0						
			49.1	49.1	78.8	78.8	99.5	99.5	131.6	131.6	154.6	154.6						
6	M																	
6	F																	
6	ALL	2.	68.4	3.9	106.2	11.5	132.7	19.7	164.2	42.0	189.4	44.9	205.7	45.1				
			65.6	71.2	98.1	114.4	118.8	146.6	134.5	193.9	157.6	221.2	173.8	237.6				
ALL	M																	
ALL	F																	
ALL	ALL	25.	58.8	9.7	94.3	13.1	116.7	21.7	153.3	35.2	177.8	37.6	205.7	45.1	0.0	0.0	0.0	0.0
			44.2	83.7	73.1	115.4	88.8	149.0	131.6	193.9	154.6	221.2	173.8	237.6	0.0	0.0	0.0	0.0

6(v)

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN HEADWATER POND 1979 (FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
2	M	2.	58.8	0.4	92.1	4.5												
			58.5	59.1	88.9	95.2												
2	F																	
2	ALL	23.	68.5	10.3	98.2	10.5												
			57.9	95.0	80.5	119.7												
3	M	16.	70.7	9.2	105.5	13.6	137.9	17.7										
			53.2	86.4	74.3	126.5	97.7	164.2										
3	F	8.	69.5	8.1	106.6	13.4	139.8	19.4										
			57.1	80.2	89.4	122.5	110.3	159.1										
3	ALL	138.	71.8	9.5	110.9	13.6	144.6	18.6										
			52.1	100.0	74.3	154.4	97.7	193.2										
4	M	11.	68.2	8.1	101.5	11.8	128.8	12.9	154.9	11.0								
			56.3	83.6	86.4	117.0	113.5	148.8	141.1	172.8								
4	F	10.	63.3	8.0	97.7	14.3	126.1	17.3	151.2	18.7								
			45.4	70.7	72.2	114.8	93.5	151.2	107.0	174.0								
4	ALL	60.	71.2	10.2	110.0	17.0	143.2	24.3	169.5	25.4								
			45.4	103.0	72.2	148.8	93.5	197.8	107.0	223.1								
5	M	1.	61.0	0.0	83.5	0.0	125.6	0.0	160.6	0.0	169.1	0.0						
			61.0	61.0	83.5	83.5	125.6	125.6	160.6	160.6	169.1	169.1						
5	F	1.	59.6	0.0	104.6	0.0	123.2	0.0	139.6	0.0	172.7	0.0						
			59.6	59.6	104.6	104.6	123.2	123.2	139.6	139.6	172.7	172.7						
5	ALL	12.	73.9	10.1	115.0	22.2	144.8	27.7	174.4	24.1	198.1	24.8						
			59.6	97.0	83.5	155.8	112.8	205.8	137.6	222.0	169.1	249.9						
6	M																	
6	F	1.	71.9	0.0	115.0	0.0	171.5	0.0	206.6	0.0	229.8	0.0	245.5	0.0				
			71.9	71.9	115.0	115.0	171.5	171.5	206.6	206.6	229.8	229.8	245.5	245.5				
6	ALL	1.	71.9	0.0	115.0	0.0	171.5	0.0	206.6	0.0	229.8	0.0	245.5	0.0				
			71.9	71.9	115.0	115.0	171.5	171.5	206.6	206.6	229.8	229.8	245.5	245.5				
ALL	M	30.	68.7	8.8	102.4	13.0	133.9	16.1	155.4	10.6	169.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			53.2	86.4	74.3	126.5	97.7	164.2	141.1	172.8	169.1	169.1	0.0	0.0	0.0	0.0	0.0	0.0
ALL	F	20.	66.0	8.2	102.5	13.9	133.7	20.2	154.9	23.7	201.2	40.4	245.5	0.0	0.0	0.0	0.0	0.0
			45.4	80.2	72.2	122.5	93.5	171.5	107.0	206.6	172.7	229.8	245.5	245.5	0.0	0.0	0.0	0.0
ALL	ALL	234.	71.4	9.8	109.7	15.2	144.3	20.9	170.8	25.3	200.5	25.3	245.5	0.0	0.0	0.0	0.0	0.0
			45.4	103.0	72.2	155.8	93.5	205.8	107.0	223.1	169.1	249.9	245.5	245.5	0.0	0.0	0.0	0.0

6(vi)

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN HEADWATER POND 1980 (FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
1	M																	
1	F																	
1	ALL	2.	68.7	13.4														
			59.2	78.1														
2	M																	
2	F																	
2	ALL	14.	54.3	6.2	90.3	9.2												
			44.0	64.8	76.8	108.9												
3	M																	
3	F																	
3	ALL	41.	62.2	8.2	98.9	11.1	140.4	17.3										
			47.7	79.7	75.7	118.2	106.2	168.1										
4	M																	
4	F																	
4	ALL	62.	61.0	8.6	103.3	12.0	144.0	19.9	183.2	24.2								
			44.8	88.1	79.4	133.7	109.6	194.9	132.0	246.2								
5	M																	
5	F	1.	56.2	0.0	94.1	0.0	143.5	0.0	170.0	0.0	209.4	0.0						
			56.2	56.2	94.1	94.1	143.5	143.5	170.0	170.0	209.4	209.4						
5	ALL	17.	61.8	10.1	104.4	17.0	147.8	20.9	189.1	19.3	221.8	18.3						
			47.5	79.7	77.2	133.9	121.6	187.0	152.5	234.4	180.2	255.1						
6	M																	
6	F																	
6	ALL	2.	69.6	1.4	111.6	1.2	176.1	13.1	210.0	10.9	245.8	11.6	293.4	11.8				
			68.6	70.6	110.7	112.4	166.8	185.4	202.3	217.8	237.6	254.0	285.0	301.7				
ALL	M																	
ALL	F	1.	56.2	0.0	94.1	0.0	143.5	0.0	170.0	0.0	209.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			56.2	56.2	94.1	94.1	143.5	143.5	170.0	170.0	209.4	209.4	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	138.	61.0	8.7	100.9	12.7	143.9	19.5	185.1	23.3	224.4	19.0	293.4	11.8	0.0	0.0	0.0	0.0
			44.0	88.1	75.7	133.9	106.2	194.9	132.0	246.2	180.2	255.1	285.0	301.7	0.0	0.0	0.0	0.0

APPENDIX 7: ATLANTIC SALMON FROM LITTLE GULL LAKE BY YEAR-CLASS AND YEAR OF CAPTURE

(i) 1979 with overall intercept 124

(ii) 1979 with own intercept 128

7(i)

PROGRAM SCALES TABLE ONE GROWTH OF SALMON IN LITTLE GULL LAKE 1979 (FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
2	M													
2	F													
2	ALL	13.	100.0	8.5	84.0	117.0	16.2	3.8	10.0	22.0	25.0	4.3	19.0	33.0
3	M													
3	F													
3	ALL	26.	140.2	20.4	112.0	186.0	36.5	13.0	19.0	71.0	35.3	7.7	20.0	51.0
4	M													
4	F													
4	ALL	10.	163.7	9.0	155.0	180.0	53.5	11.2	41.0	78.0	44.4	7.0	31.0	54.0
5	M													
5	F													
5	ALL	3.	219.0	37.5	177.0	249.0	135.0	65.6	60.0	182.0	61.0	8.7	51.0	66.0
6	M													
6	F													
6	ALL	3.	241.7	13.0	229.0	255.0	159.3	29.7	126.0	183.0	74.7	4.7	71.0	80.0
ALL	M													
ALL	F													
ALL	ALL	55.	144.8	40.8	84.0	255.0	46.9	41.4	10.0	183.0	38.1	14.1	19.0	80.0

TOTAL NUMBER OF FISH 55

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 3.2 S.D. 1.0

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.7593

CORRELATION COEFF. 0.9041

REGRESSION LINE:

LN LENGTH(MM) = 2.4397 + 0.698 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:

INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-3.9318 + 2.559 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9879

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN LITTLE GULL LAKE 1979 (FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
2	M																	
2	F																	
2	ALL	13.	55.1	5.0	79.0	7.4												
			47.6	62.6	64.1	89.3												
3	M																	
3	F																	
3	ALL	26.	59.7	11.3	90.4	14.7	120.3	14.8										
			36.7	85.3	64.0	116.5	95.6	147.5										
4	M																	
4	F																	
4	ALL	10.	57.1	5.8	92.3	11.1	121.5	14.1	142.3	11.2								
			48.2	64.8	74.2	109.4	92.2	142.9	125.7	163.2								
5	M																	
5	F																	
5	ALL	3.	68.9	12.2	93.1	22.4	130.1	39.2	174.5	33.8	199.6	38.2						
			56.7	81.1	72.7	117.2	96.5	173.1	138.0	204.7	157.1	231.3						
6	M																	
6	F																	
6	ALL	3.	68.9	8.5	96.8	7.8	140.3	8.1	173.8	7.9	202.1	7.1	227.0	14.3				
			59.2	75.1	88.2	103.4	130.9	145.5	164.7	179.5	196.6	210.2	214.6	242.7				
ALL	M																	
ALL	F																	
ALL	ALL	55.	59.2	9.7	88.6	13.6	122.7	16.9	154.3	22.1	200.8	24.6	227.0	14.3	0.0	0.0	0.0	0.0
			36.7	85.3	64.0	117.2	92.2	173.1	125.7	204.7	157.1	231.3	214.6	242.7	0.0	0.0	0.0	0.0

GROWTH OF SALMON IN LITTLE GULL LAKE 1979 (FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75										
76 - 80										
81 - 85	1			1						
86 - 90										
91 - 95	3			3						
96 - 100	3			3						
101 - 105	3			3						
106 - 110	2			2						
111 - 115	3				3					
116 - 120	3			1	2					
121 - 125	2				2					
126 - 130										
131 - 135	5				5					
136 - 140	3				3					
141 - 145	2				2					
146 - 1 0	2				2					
151 - 155	4				2	2				
156 - 160	4					4				
161 - 165	1				1					
166 - 170	4				2	2				
171 - 175										
176 - 180	4				1	2	1			
181 - 185										
186 - 190	1				1					
191 - 195										
196 - 200										
201 - 205										
206 - 210										
211 - 215										
216 - 220										
221 - 225										
226 - 230	1							1		
231 - 235	1						1			
236 - 240										
241 - 245	1							1		
246 - 250	1						1			
251 - 255	1							1		
TOTAL	55			13	26	10	3	3		

7(ii)

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN LITTLE GULL LAKE 1979 (FYKENETTED FISH ONLY)

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
2	M																	
2	F																	
2	ALL	13.	49.8	5.2	75.9	7.9												
			41.8	57.9	59.2	86.9												
3	M																	
3	F																	
3	ALL	26.	52.8	11.0	84.9	14.5	117.7	14.4										
			30.5	77.9	58.1	111.1	92.5	143.2										
4	M																	
4	F																	
4	ALL	10.	49.5	5.7	85.4	11.5	116.7	14.9	139.7	11.8								
			40.9	56.9	66.8	104.2	85.6	138.7	121.9	161.1								
5	M																	
5	F																	
5	ALL	3.	59.9	11.2	84.0	21.6	122.3	39.5	169.7	33.7	197.3	38.5						
			48.8	71.2	64.7	107.4	89.0	166.0	133.5	200.1	154.6	229.3						
6	M																	
6	F																	
6	ALL	3.	59.5	8.2	87.1	8.0	131.7	9.0	167.2	7.7	197.9	6.9	225.4	14.5				
			50.2	65.7	78.4	94.1	121.3	137.2	158.4	172.4	192.0	205.6	212.9	241.3				
ALL	M																	
ALL	F																	
ALL	ALL	55.	52.2	9.1	82.9	13.0	118.8	16.4	150.5	21.2	197.6	24.7	225.4	14.5	0.0	0.0	0.0	0.0
			30.5	77.9	58.1	111.1	85.6	166.0	121.9	200.1	154.6	229.3	212.9	241.3	0.0	0.0	0.0	0.0

APPENDIX 8: ATLANTIC SALMON FROM SPRUCE POND BY SEASON AND YEAR OF CAPTURE AND THE COMBINED DATA

(i) June-July 1977 (gill and fyke net) 130

(ii) Spring 1978 (fyke net) 135

(iii) Fall 1978 (fyke net) 139

(iv) Spring 1979 (fyke net) 144

(v) Fall 1979 (fyke net) 148

(vi) Spring 1980 (fyke net) 153

(vii) Fall 1980 (fyke net) 158

(viii) 1977-80 (fyke net only) 163

8(i)

PROGRAM SCALES TABLE ONE GROWTH OF SALMON IN SPRUCE POND 1977 (GILL AND FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
1	M	1.	84.0	0.0	84.0	84.0	9.0	0.0	9.0	9.0	16.0	0.0	16.0	16.0
1	F													
1	ALL	4.	74.3	7.1	68.0	84.0	5.8	2.4	4.0	9.0	17.0	1.4	16.0	19.0
2	M	1.	110.0	0.0	110.0	110.0	12.0	0.0	12.0	12.0	26.0	0.0	26.0	26.0
2	F	6.	111.7	10.4	100.0	123.0	22.0	9.4	12.0	33.0	30.0	6.3	23.0	40.0
2	ALL	10.	109.3	27.1	68.0	167.0	20.4	14.4	4.0	50.0	28.1	8.2	15.0	40.0
3	M	12.	163.2	18.2	130.0	200.0	57.5	20.0	28.0	99.0	43.3	8.2	32.0	58.0
3	F	11.	167.3	24.6	115.0	197.0	64.5	18.7	37.0	94.0	46.2	8.4	36.0	58.0
3	ALL	32.	164.8	20.7	115.0	200.0	58.1	18.6	28.0	99.0	43.2	7.8	32.0	58.0
4	M	12.	182.5	12.9	165.0	202.0	77.6	19.6	43.0	107.0	48.9	8.0	38.0	67.0
4	F	22.	180.0	18.6	144.0	211.0	72.8	18.1	46.0	105.0	51.8	7.7	36.0	66.0
4	ALL	39.	181.6	15.9	144.0	211.0	73.6	17.7	43.0	107.0	49.9	7.9	36.0	67.0
5	M	2.	193.0	2.8	191.0	195.0	82.0	1.4	81.0	83.0	60.0	4.2	57.0	63.0
5	F	4.	252.7	77.1	205.0	368.0	228.0	231.5	102.0	575.0	77.8	21.4	60.0	108.0
5	ALL	7.	236.7	62.2	191.0	368.0	173.0	178.4	81.0	575.0	70.9	17.5	57.0	108.0
6	M	1.	332.0	0.0	332.0	332.0	418.0	0.0	418.0	418.0	65.0	0.0	65.0	65.0
6	F													
6	ALL	1.	332.0	0.0	332.0	332.0	418.0	0.0	418.0	418.0	65.0	0.0	65.0	65.0
ALL	M	29.	174.5	40.4	84.0	332.0	76.7	70.3	9.0	418.0	46.0	11.5	16.0	67.0
ALL	F	43.	174.0	43.9	100.0	368.0	78.0	82.1	12.0	575.0	49.7	14.8	23.0	108.0
ALL	ALL	93.	169.2	45.4	68.0	368.0	70.8	70.5	4.0	575.0	45.6	14.3	15.0	108.0

TOTAL NUMBER OF FISH 93

NO. OF IMMATURE FISH 14

NO. OF MATURE FISH 1

AVE AGE (NO. ANNULI) 3.4 S.D. 1.0

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.7593

CORRELATION COEFF. 0.9109

REGRESSION LINE:

LN LENGTH(MM) = 2.2231 + 0.762 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:
LOG WEIGHT(G) =-4.7583 + 2.933 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9754

FOR FEMALES:
LOG WEIGHT(G) =-3.9176 + 2.563 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9667

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.4454 + 2.790 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9796

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN SPRUCE POND 1977 (GILL AND FYKENETTED FISH ONLY)

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN MIN	FIRST S.D. MAX	SECOND MEAN MIN	SECOND S.D. MAX	THIRD MEAN MIN	THIRD S.D. MAX	FOURTH MEAN MIN	FOURTH S.D. MAX	FIFTH MEAN MIN	FIFTH S.D. MAX	SIXTH MEAN MIN	SIXTH S.D. MAX	SEVENTH MEAN MIN	SEVENTH S.D. MAX	EIGHTH MEAN MIN	EIGHTH S.D. MAX
1	M	1.	67.0	0.0														
			67.0	67.0														
1	F																	
1	ALL	4.	51.9	10.3														
			43.9	67.0														
2	M	1.	65.9	0.0	99.6	0.0												
			65.9	65.9	99.6	99.6												
2	F	6.	63.3	7.7	93.4	9.4												
			51.2	72.9	84.3	105.8												
2	ALL	10.	63.3	12.4	93.9	22.4												
			48.5	89.2	62.8	144.8												
3	M	12.	66.0	7.8	98.0	11.2	142.5	13.3										
			56.7	85.4	80.8	109.1	119.4	165.9										
3	F	11.	60.9	7.0	94.5	10.1	140.4	21.3										
			49.5	74.2	79.7	117.1	104.3	173.6										
3	ALL	32.	65.8	10.9	101.0	14.1	143.3	17.3										
			49.5	102.9	79.7	149.4	104.3	173.6										
4	M	12.	63.8	10.4	98.8	15.1	129.3	14.7	161.6	12.9								
			42.6	82.1	69.2	122.7	97.0	150.7	138.8	186.4								
4	F	22.	65.5	11.1	97.6	13.7	133.7	17.6	160.5	19.5								
			46.7	84.9	72.4	129.1	102.5	162.7	126.1	195.8								
4	ALL	39.	65.2	10.7	98.4	13.5	133.2	15.9	162.1	16.7								
			42.6	84.9	69.2	129.1	97.0	162.7	126.1	195.8								
5	M	2.	55.1	17.7	85.8	7.7	114.2	7.1	156.4	2.5	179.9	2.3						
			42.6	67.6	80.4	91.2	109.1	119.2	154.7	158.2	178.3	181.6						
5	F	4.	56.7	12.9	99.9	25.9	160.7	41.5	201.9	55.2	232.6	78.7						
			43.3	74.3	66.8	130.1	132.8	222.2	161.5	282.8	180.6	349.4						
5	ALL	7.	63.8	23.4	103.2	29.0	150.8	39.6	192.9	47.4	220.3	62.5						
			42.6	109.8	66.8	151.3	109.1	222.2	154.7	282.8	178.3	349.4						
6	M	1.	65.3	0.0	84.7	0.0	119.4	0.0	170.1	0.0	215.7	0.0	282.1	0.0				
			65.3	65.3	84.7	84.7	119.4	119.4	170.1	170.1	215.7	215.7	282.1	282.1				
6	F																	
6	ALL	1.	65.3	0.0	84.7	0.0	119.4	0.0	170.1	0.0	215.7	0.0	282.1	0.0				
			65.3	65.3	84.7	84.7	119.4	119.4	170.1	170.1	215.7	215.7	282.1	282.1				
ALL	M	29.	64.3	9.2	97.0	12.8	133.7	15.8	161.5	11.9	191.9	20.7	282.1	0.0	0.0	0.0	0.0	0.0
			42.6	85.4	69.2	122.7	97.0	165.9	138.8	186.4	178.3	215.7	282.1	282.1	0.0	0.0	0.0	0.0
ALL	F	43.	63.2	10.0	96.4	13.5	138.6	22.8	166.9	30.3	232.6	78.7	0.0	0.0	0.0	0.0	0.0	0.0
			43.3	84.9	66.8	130.1	102.5	222.2	126.1	282.8	180.6	349.4	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	93.	64.5	12.2	99.1	16.3	138.7	20.1	166.9	25.4	219.7	57.9	282.1	0.0	0.0	0.0	0.0	0.0
			42.6	109.8	62.8	151.3	97.0	222.2	126.1	282.8	178.3	349.4	282.1	282.1	0.0	0.0	0.0	0.0

GROWTH OF SALMON IN SPRUCE POND 1977 (GILL AND FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70	3		2	1						
71 - 75	1		1							
76 - 80	1			1						
81 - 85	1		1							
86 - 90										
91 - 95										
96 - 100	1			1						
101 - 105	2			2						
106 - 110	1			1						
111 - 115	1				1					
116 - 120	2			2						
121 - 125	1			1						
126 - 130	2				2					
131 - 135										
136 - 140	1				1					
141 - 145	4				2	2				
146 - 150	2				2					
151 - 155	1				1					
156 - 160	5				4	1				
161 - 165	5				2	3				
166 - 170	9			1	3	5				
171 - 175	8				5	3				
176 - 180	3					3				
181 - 185	7				3	4				
186 - 190	10				4	6				
191 - 195	6					4	2			
196 - 200	6				2	4				
201 - 205	4					3	1			
206 - 210										
211 - 215	1					1				
216 - 220	1						1			
221 - 225	1						1			
226 - 230										
231 - 235										
236 - 240										
241 - 245										
246 - 250										
251 - 255										
256 - 260	1						1			
261 - 265										
266 - 270										
271 - 275										

276 - 280							
281 - 285							
286 - 290							
291 - 295							
296 - 300							
301 - 305							
306 - 310							
311 - 315							
316 - 320							
321 - 325							
326 - 330							
331 - 335	1					1	
336 - 340							
341 - 345							
346 - 350							
351 - 355							
356 - 360							
361 - 365							
366 - 370	1				1		
TOTAL	93	4	10	32	39	7	1

8(ii)

RROGRAM SCALES TABLE ONE GROWTH OF SALMON IN SPRUCE POND 1978 (SPRING FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
1	M													
1	F													
1	ALL	1.	89.0	0.0	89.0	89.0	12.0	0.0	12.0	12.0	12.0	0.0	12.0	12.0
2	M													
2	F													
2	ALL	34.	101.0	16.2	84.0	166.0	15.4	6.7	9.0	48.0	17.2	4.4	11.0	29.0
3	M													
3	F													
3	ALL	28.	129.4	26.4	95.0	196.0	28.5	14.7	13.0	79.0	28.2	7.0	17.0	47.0
4	M													
4	F													
4	ALL	50.	181.6	17.4	148.0	225.0	60.7	16.9	31.0	105.0	42.0	7.2	26.0	63.0
5	M													
5	F													
5	ALL	12.	208.3	21.0	146.0	229.0	92.1	13.8	60.0	113.0	50.9	6.2	37.0	60.0
ALL	M													
ALL	F													
ALL	ALL	125.	149.8	43.6	84.0	229.0	43.8	28.5	9.0	113.0	32.8	13.5	11.0	63.0

TOTAL NUMBER OF FISH 125

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 3.3 S.D. 1.0

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.7593

CORRELATION COEFF. 0.9213

REGRESSION LINE:

LN LENGTH(MM) = 2.8843 + 0.613 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:

INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-3.5587 + 2.363 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9893

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN SPRUCE POND 1978 (SPRING FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN MIN	FIRST S.D. MAX	SECOND MEAN MIN	SECOND S.D. MAX	THIRD MEAN MIN	THIRD S.D. MAX	FOURTH MEAN MIN	FOURTH S.D. MAX	FIFTH MEAN MIN	FIFTH S.D. MAX	SIXTH MEAN MIN	SIXTH S.D. MAX	SEVENTH MEAN MIN	SEVENTH S.D. MAX	EIGHTH MEAN MIN	EIGHTH S.D. MAX
1	M																	
1	F																	
1	ALL	1.	78.4	0.0														
			78.4	78.4														
2	M																	
2	F																	
2	ALL	34.	51.2	10.4	92.3	12.0												
			34.0	72.3	74.3	125.7												
3	M																	
3	F																	
3	ALL	28.	49.7	10.0	90.5	18.4	124.1	26.2										
			35.0	78.9	55.9	136.9	93.1	190.5										
4	M																	
4	F																	
4	ALL	50.	52.8	9.8	88.9	12.4	133.6	16.4	174.7	16.6								
			31.6	80.8	63.2	128.8	97.2	174.1	143.8	220.7								
5	M																	
5	F																	
5	ALL	12.	53.8	10.8	94.6	18.4	135.9	23.4	168.4	24.0	202.1	23.4						
			35.5	68.2	66.3	121.9	93.5	165.0	106.0	193.2	130.2	219.5						
ALL	M																	
ALL	F																	
ALL	ALL	125.	52.0	10.3	90.7	14.4	131.0	21.1	173.5	18.2	202.1	23.4	0.0	0.0	0.0	0.0	0.0	0.0
			31.6	80.8	55.9	136.9	93.1	190.5	106.0	220.7	130.2	219.5	0.0	0.0	0.0	0.0	0.0	0.0

GROWTH OF SALMON IN SPRUCE POND 1978 (SPRING FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75										
76 - 80										
81 - 85	5			5						
86 - 90	4		1	3						
91 - 95	8			7	1					
96 - 100	8			5	3					
101 - 105	9			6	3					
106 - 110	3			2	1					
111 - 115	4			1	3					
116 - 120	3			2	1					
121 - 125	3			1	2					
126 - 130	2			1	1					
131 - 135	3				3					
136 - 140										
141 - 145	2				2					
146 - 150	2					1	1			
151 - 155	5				2	3				
156 - 160	2				2					
161 - 165	7				3	4				
166 - 170	5			1		4				
171 - 175	8					8				
176 - 180	3					3				
181 - 185	7					7				
186 - 190	8					8				
191 - 195	4					4				
196 - 200	4				1	2	1			
201 - 205										
206 - 210	4					2	2			
211 - 215	3					1	2			
216 - 220	6					1	5			
221 - 225	2					2				
226 - 230	1						1			
TOTAL	125		1	34	28	50	12			

8(iii)

PROGRAM SCALES TABLE ONE GROWTH OF SALMON IN SPRUCE POND 1978 (FALL FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
1	M													
1	F													
1	ALL	7.	81.1	4.5	77.0	89.0	8.0	2.0	6.0	10.0	16.6	2.8	13.0	22.0
2	M													
2	F													
2	ALL	52.	106.9	13.1	80.0	137.0	15.2	5.8	8.0	37.0	22.8	4.5	14.0	34.0
3	M													
3	F													
3	ALL	42.	135.7	16.0	101.0	173.0	30.2	11.8	12.0	64.0	32.5	5.9	22.0	43.0
4	M													
4	F													
4	ALL	25.	177.1	22.4	131.0	231.0	66.0	25.6	27.0	137.0	42.7	7.9	28.0	59.0
5	M													
5	F													
5	ALL	18.	201.7	22.7	182.0	283.0	95.4	48.9	58.0	279.0	50.9	8.5	35.0	70.0
6	M													
6	F													
6	ALL	1.	222.0	0.0	222.0	222.0	120.0	0.0	120.0	120.0	61.0	0.0	61.0	61.0
ALL	M													
ALL	F													
ALL	ALL	145.	138.7	40.1	77.0	283.0	38.6	35.9	6.0	279.0	32.5	12.2	13.0	70.0

TOTAL NUMBER OF FISH 145

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 3.0 S.D. 1.1

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.7593

CORRELATION COEFF. 0.9203

REGRESSION LINE:

LN LENGTH(MM) = 2.5176 + 0.696 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.5302 + 2.810 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9767

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN SPRUCE POND 1978 (FALL FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
1	M																	
1	F																	
1	ALL	7.	53.8	4.8														
			47.8	60.4														
2	M																	
2	F																	
2	ALL	52.	51.8	7.5	79.1	10.6												
			37.3	70.6	60.8	101.7												
3	M																	
3	F																	
3	ALL	42.	50.9	8.5	78.4	10.7	104.3	14.8										
			36.0	70.8	60.9	97.4	80.3	140.3										
4	M																	
4	F																	
4	ALL	25.	56.5	8.0	89.4	14.1	117.6	20.8	148.1	22.0								
			41.3	69.0	70.3	120.7	91.1	172.9	112.4	208.4								
5	M																	
5	F																	
5	ALL	18.	55.8	6.4	84.4	9.9	115.3	13.5	145.7	19.4	171.7	23.8						
			41.7	66.7	59.4	99.4	87.1	137.8	121.9	209.6	144.3	254.9						
6	M																	
6	F																	
6	ALL	1.	44.4	0.0	64.9	0.0	101.3	0.0	134.6	0.0	166.5	0.0	185.2	0.0				
			44.4	44.4	64.9	64.9	101.3	101.3	134.6	134.6	166.5	166.5	185.2	185.2				
ALL	M																	
ALL	F																	
ALL	ALL	145.	52.9	7.9	81.4	12.0	110.4	17.4	146.8	20.6	171.4	23.1	185.2	0.0	0.0	0.0	0.0	0.0
			36.0	70.8	59.4	120.7	80.3	172.9	112.4	209.6	144.3	254.9	185.2	185.2	0.0	0.0	0.0	0.0

GROWTH OF SALMON IN SPRUCE POND 1978 (FALL FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75										
76 - 80	5		4	1						
81 - 85	3		2	1						
86 - 90	4		1	3						
91 - 95	5			5						
96 - 100	9			9						
101 - 105	8			7	1					
106 - 110	8			6	2					
111 - 115	9			7	2					
116 - 120	7			4	3					
121 - 125	6			4	2					
126 - 130	5			2	3					
131 - 135	11			2	8	1				
136 - 140	8			1	7					
141 - 145	5				5					
146 - 150	2				2					
151 - 155	4				3	1				
156 - 160	2				1	1				
161 - 165	5				1	4				
166 - 170	5				1	4				
171 - 175	6				1	5				
176 - 180	1					1				
181 - 185	4					3	1			
186 - 190	7					1	6			
191 - 195	3						3			
196 - 200	2						2			
201 - 205	1					1				
206 - 210	3					1	2			
211 - 215	2						2			
216 - 220	1						1			
221 - 225	1							1		
226 - 230										
231 - 235	2					2				
236 - 240										
241 - 24										
246 - 250										
251 - 255										
256 - 260										
261 - 265										
266 - 270										
271 - 275										

276 - 280							
281 - 285	1					1	
TOTAL	145	7	52	42	25	18	1

PROGRAM SCALES TABLE ONE GROWTH OF SALMON IN SPRUCE POND 1979 (SPRING FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
2	M													
2	F													
2	ALL	23.	96.0	10.3	79.0	115.0	11.9	5.4	5.0	25.0	18.1	3.3	12.0	25.0
3	M	5.	131.6	15.4	116.0	156.0	28.4	9.3	20.0	44.0	34.4	7.1	25.0	42.0
3	F	1.	117.0	0.0	117.0	117.0	18.0	0.0	18.0	18.0	29.0	0.0	29.0	29.0
3	ALL	52.	141.9	22.7	104.0	194.0	34.6	15.3	12.0	84.0	33.6	8.6	15.0	54.0
4	M	2.	182.0	21.2	167.0	197.0	63.5	23.3	47.0	80.0	58.5	19.1	45.0	72.0
4	F	1.	176.0	0.0	176.0	176.0	66.0	0.0	66.0	66.0	66.0	0.0	66.0	66.0
4	ALL	45.	180.5	22.7	132.0	255.0	73.9	76.1	28.0	551.0	44.8	10.6	28.0	72.0
5	M													
5	F													
5	ALL	14.	203.8	26.8	155.0	262.0	88.9	34.5	46.0	185.0	54.1	11.3	30.0	73.0
6	M	1.	233.0	0.0	233.0	233.0	108.0	0.0	108.0	108.0	73.0	0.0	73.0	73.0
6	F													
6	ALL	1.	233.0	0.0	233.0	233.0	108.0	0.0	108.0	108.0	73.0	0.0	73.0	73.0
7	M													
7	F													
7	ALL	1.	215.0	0.0	215.0	215.0	84.0	0.0	84.0	84.0	61.0	0.0	61.0	61.0
ALL	M	8.	156.9	40.8	116.0	233.0	47.1	31.4	20.0	108.0	45.3	18.0	25.0	73.0
ALL	F	2.	146.5	41.7	117.0	176.0	42.0	33.9	18.0	66.0	47.5	26.2	29.0	66.0
ALL	ALL	136.	154.5	40.5	79.0	262.0	50.3	53.0	5.0	551.0	37.3	14.4	12.0	73.0

TOTAL NUMBER OF FISH 136

NO. OF IMMATURE FISH 2

NO. OF MATURE FISH 3

AVE AGE (NO. ANNULI) 3.4 S.D. 1.0

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.7593

CORRELATION COEFF. 0.8952

REGRESSION LINE:

LN LENGTH(MM) = 2.8915 + 0.597 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:
LOG WEIGHT(G) =-3.7750 + 2.461 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9968

FOR FEMALES:
LOG WEIGHT(G) =-5.3259 + 3.182 (LOG LENGTH(MM)) CORRELATION COEFF. 1.0000

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.3030 + 2.703 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9495

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN SPRUCE POND 1979 (SPRING FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
2	M																	
2	F																	
2	ALL	23.	57.3	8.6	87.3	9.4												
			44.2	79.7	72.4	107.2												
3	M	5.	53.2	6.1	90.2	10.2	121.0	12.2										
			47.6	61.7	73.6	98.4	107.2	139.5										
3	F	1.	41.1	0.0	85.2	0.0	112.1	0.0										
			41.1	41.1	85.2	85.2	112.1	112.1										
3	ALL	52.	60.3	10.6	97.2	15.9	132.4	20.7										
			41.1	85.7	68.7	140.7	98.1	177.0										
4	M	2.	55.7	8.4	86.4	20.7	115.2	28.3	161.0	8.4								
			49.8	61.6	71.7	101.0	95.2	135.2	155.1	167.0								
4	F	1.	66.0	0.0	88.5	0.0	130.0	0.0	169.8	0.0								
			66.0	66.0	88.5	88.5	130.0	130.0	169.8	169.8								
4	ALL	45.	61.5	8.0	93.4	12.7	130.7	18.6	167.8	21.9								
			47.0	77.6	69.9	131.8	95.2	176.9	122.8	233.5								
5	M																	
5	F																	
5	ALL	14.	60.1	9.5	92.8	13.3	125.4	20.7	165.6	26.5	194.6	26.8						
			51.3	82.2	74.1	119.2	97.3	170.5	134.3	231.9	148.0	256.6						
6	M	1.	58.2	0.0	93.4	0.0	157.2	0.0	197.3	0.0	210.3	0.0	229.0	0.0				
			58.2	58.2	93.4	93.4	157.2	157.2	197.3	197.3	210.3	210.3	229.0	229.0				
6	F																	
6	ALL	1.	58.2	0.0	93.4	0.0	157.2	0.0	197.3	0.0	210.3	0.0	229.0	0.0				
			58.2	58.2	93.4	93.4	157.2	157.2	197.3	197.3	210.3	210.3	229.0	229.0				
7	M																	
7	F																	
7	ALL	1.	59.2	0.0	80.5	0.0	112.5	0.0	156.5	0.0	169.6	0.0	194.3	0.0	215.0	0.0		
			59.2	59.2	80.5	80.5	112.5	112.5	156.5	156.5	169.6	169.6	194.3	194.3	215.0	215.0		
ALL	M	8.	54.5	5.9	89.6	11.2	124.1	19.6	173.1	21.8	210.3	0.0	229.0	0.0	0.0	0.0	0.0	0.0
			47.6	61.7	71.7	101.0	95.2	157.2	155.1	197.3	210.3	210.3	229.0	229.0	0.0	0.0	0.0	0.0
ALL	F	2.	53.6	17.6	86.8	2.4	121.1	12.7	169.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			41.1	66.0	85.2	88.5	112.1	130.0	169.8	169.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	136.	60.1	9.3	93.7	13.9	130.9	19.8	167.6	22.8	194.0	26.0	211.6	24.5	215.0	0.0	0.0	0.0
			41.1	85.7	68.7	140.7	95.2	177.0	122.8	233.5	148.0	256.6	194.3	229.0	215.0	215.0	0.0	0.0

GROWTH OF SALMON IN SPRUCE POND 1979 (SPRING FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75										
76 - 80	2			2						
81 - 85	2			2						
86 - 90	1			1						
91 - 95	6			6						
96 - 100	4			4						
101 - 105	5			4	1					
106 - 110	2			2						
111 - 115	4			2	2					
116 - 120	10				10					
121 - 125	5				5					
126 - 130	3				3					
131 - 135	5				4	1				
136 - 140	4				3	1				
141 - 145	3				2	1				
146 - 150	1				1					
151 - 155	2					1	1			
156 - 160	10				8	2				
161 - 165	8				4	4				
166 - 170	7				2	5				
171 - 175	7				3	4				
176 - 180	10				2	6	2			
181 - 185	5				1	4				
186 - 190	3					1	2			
191 - 195	8				1	6	1			
196 - 200	4					4				
201 - 205	1						1			
206 - 210	3					1	2			
211 - 215	3					1	1		1	
216 - 220	2					1	1			
221 - 225	1						1			
226 - 230	1					1				
231 - 235	2						1	1		
236 - 240										
241 - 245										
246 - 250										
251 - 255	1					1				
256 - 260										
261 - 265	1						1			
TOTAL	136			23	52	45	14	1	1	

8(v)

PROGRAM SCALES TABLE ONE GROWTH OF SALMON IN SPRUCE POND 1979 (FALL FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
1	M													
1	F													
1	ALL	4.	90.5	8.4	82.0	100.0	12.3	2.2	10.0	15.0	20.3	4.8	16.0	27.0
2	M													
2	F													
2	ALL	14.	115.1	20.7	75.0	145.0	19.6	8.8	4.0	35.0	26.9	5.1	17.0	33.0
3	M													
3	F	1.	156.0	0.0	156.0	156.0	48.0	0.0	48.0	48.0	48.0	0.0	48.0	48.0
3	ALL	24.	143.8	17.4	120.0	194.0	34.9	12.1	15.0	60.0	35.7	7.4	23.0	48.0
4	M													
4	F													
4	ALL	8.	179.7	13.9	162.0	202.0	63.8	12.0	50.0	89.0	44.9	10.2	32.0	66.0
5	M													
5	F													
5	ALL	11.	208.7	19.6	180.0	240.0	95.6	32.2	46.0	168.0	58.9	8.2	47.0	77.0
6	M													
6	F													
6	ALL	7.	234.0	25.1	210.0	268.0	133.4	46.4	90.0	191.0	65.6	6.5	55.0	73.0
ALL	M													
ALL	F	1.	156.0	0.0	156.0	156.0	48.0	0.0	48.0	48.0	48.0	0.0	48.0	48.0
ALL	ALL	68.	158.8	46.2	75.0	268.0	53.8	43.2	4.0	191.0	40.9	15.6	16.0	77.0

TOTAL NUMBER OF FISH 68

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 3.4 S.D. 1.4

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.7593

CORRELATION COEFF. 0.9119

REGRESSION LINE:

LN LENGTH(MM) = 2.4914 + 0.697 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.2132 + 2.663 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9802

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN SPRUCE POND 1979 (FALL ' FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	4.	60.4	5.9														
			51.7	63.9														
2	M																	
2	F																	
2	ALL	14.	57.4	7.6	85.8	10.6												
			46.0	69.6	67.4	102.6												
3	M																	
3	F	1.	65.2	0.0	108.5	0.0	131.6	0.0										
			65.2	65.2	108.5	108.5	131.6	131.6										
3	ALL	24.	58.8	9.8	91.4	11.8	120.9	11.9										
			40.0	80.6	71.0	113.0	96.6	155.9										
4	M																	
4	F																	
4	ALL	8.	59.0	8.7	86.5	14.1	115.8	16.4	149.4	13.2								
			42.4	70.0	60.8	107.0	83.2	136.4	127.3	167.4								
5	M																	
5	F																	
5	ALL	11.	63.1	12.7	92.7	15.2	121.7	19.5	157.2	23.0	183.5	18.8						
			44.9	79.7	63.9	118.3	93.2	156.3	116.9	193.0	154.5	207.2						
6	M																	
6	F																	
6	ALL	7.	59.9	5.3	92.2	7.2	122.9	15.3	162.0	20.3	190.0	28.8	215.4	24.5				
			52.2	68.8	78.6	102.3	102.1	144.4	132.9	198.4	163.9	232.7	184.5	247.7				
ALL	M																	
ALL	F	1.	65.2	0.0	108.5	0.0	131.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			65.2	65.2	108.5	108.5	131.6	131.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	68.	59.5	9.2	89.9	12.1	120.5	14.7	156.1	19.6	186.0	22.6	215.4	24.5	0.0	0.0	0.0	0.0
			40.0	80.6	60.8	118.3	83.2	156.3	116.9	198.4	154.5	232.7	184.5	247.7	0.0	0.0	0.0	0.0

GROWTH OF SALMON IN SPRUCE POND 1979 (FALL FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75	1			1						
76 - 80	1			1						
81 - 85	2		2							
86 - 90										
91 - 95	1		1							
96 - 100	2		1	1						
101 - 105	2			2						
106 - 110										
111 - 115	1			1						
116 - 120	3			2	1					
121 - 125	4			1	3					
126 - 130	4			2	2					
131 - 135	3			1	2					
136 - 140	5			1	4					
141 - 145	2			1	1					
146 - 150	3				3					
151 - 155	3				3					
156 - 160	3				3					
161 - 165	2					2				
166 - 170	1				1					
171 - 175	1					1				
176 - 180	3					2	1			
181 - 185	1						1			
186 - 190	1					1				
191 - 195	3				1	1	1			
196 - 200	1						1			
201 - 205	2					1	1			
206 - 210	3						2	1		
211 - 215										
216 - 220	3							3		
221 - 225	1						1			
226 - 230	2						2			
231 - 235										
236 - 240	1						1			
241 - 245										
246 - 250	1							1		
251 - 255										
256 - 260										
261 - 265	1							1		
266 - 270	1							1		

TOTAL							
68							
4							
14							
24							
8							
11							
7							

8(vi)

PROGRAM SCALES TABLE ONE GROWTH OF SALMON IN SPRUCE POND 1980 (SPRING FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
2	M													
2	F													
2	ALL	17.	109.2	10.3	90.0	125.0	16.5	4.3	8.0	24.0	20.4	3.9	12.0	30.0
3	M													
3	F													
3	ALL	29.	143.7	21.5	102.0	177.0	30.9	11.6	14.0	54.0	31.7	7.0	22.0	47.0
4	M													
4	F													
4	ALL	44.	180.7	16.9	152.0	231.0	56.6	15.2	34.0	105.0	42.2	6.9	32.0	57.0
5	M													
5	F													
5	ALL	10.	225.5	15.7	191.0	241.0	101.1	19.7	62.0	127.0	54.3	8.2	39.0	65.0
6	M													
6	F													
6	ALL	2.	276.0	22.6	260.0	292.0	183.0	39.6	155.0	211.0	67.5	7.8	62.0	73.0
ALL	M													
ALL	F													
ALL	ALL	102.	164.5	40.8	90.0	292.0	49.5	33.3	8.0	211.0	37.3	12.5	12.0	73.0

TOTAL NUMBER OF FISH 102

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 3.5 S.D. 1.0

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.7593

CORRELATION COEFF. 0.9196

REGRESSION LINE:

LN LENGTH(MM) = 2.7572 + 0.651 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:

INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.0222 + 2.555 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9880

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN SPRUCE POND 1980 (SPRING FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
2	M																	
2	F																	
2	ALL	17.	60.7	8.2	98.7	9.4												
			48.0	74.2	83.8	117.7												
3	M																	
3	F																	
3	ALL	29.	58.7	7.9	95.2	12.3	136.2	18.8										
			41.7	74.7	63.4	123.0	91.0	163.0										
4	M																	
4	F																	
4	ALL	44.	54.4	7.8	89.8	11.5	129.9	14.4	168.9	15.9								
			39.0	70.8	68.8	117.3	100.8	164.1	140.4	222.5								
5	M																	
5	F																	
5	ALL	10.	59.1	8.2	100.5	12.2	142.9	19.5	186.6	15.9	218.7	17.5						
			48.0	74.3	77.4	114.5	106.4	176.0	163.4	213.6	180.9	238.0						
6	M																	
6	F																	
6	ALL	2.	62.0	3.9	103.7	12.7	148.1	10.1	176.7	4.3	204.8	10.7	235.7	9.8				
			59.3	64.8	94.7	112.7	140.9	155.2	173.7	179.8	197.3	212.3	228.8	242.6				
ALL	M																	
ALL	F																	
ALL	ALL	102.	57.3	8.2	94.1	12.1	134.0	17.0	172.4	16.9	216.4	17.0	235.7	9.8	0.0	0.0	0.0	0.0
			39.0	74.7	63.4	123.0	91.0	176.0	140.4	222.5	180.9	238.0	228.8	242.6	0.0	0.0	0.0	0.0

GROWTH OF SALMON IN SPRUCE POND 1980 (SPRING FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75										
76 - 80										
81 - 85										
86 - 90	1			1						
91 - 95	1			1						
96 - 100										
101 - 105	7			5	2					
106 - 110	3			2	1					
111 - 115	4			4						
116 - 120	2			1	1					
121 - 125	4			3	1					
126 - 130	3				3					
131 - 135	4				4					
136 - 140	3				3					
141 - 145	1				1					
146 - 150										
151 - 155	6				3	3				
156 - 160	3				2	1				
161 - 165	8				2	6				
166 - 170	7				4	3				
171 - 175	4					4				
176 - 180	7				2	5				
181 - 185	7					7				
186 - 190	6					6				
191 - 195	2					1	1			
196 - 200	3					3				
201 - 205	3					3				
206 - 210										
211 - 215	2						2			
216 - 220	2					1	1			
221 - 225										
226 - 230	1						1			
231 - 235	2					1	1			
236 - 240	3						3			
241 - 245	1						1			
246 - 250										
251 - 255										
256 - 260	1							1		
261 - 265										
266 - 270										
271 - 275										

276 - 280						
281 - 285						
286 - 290						
291 - 295	1					1
TOTAL	102	17	29	44	10	2

PROGRAM SCALES TABLE ONE GROWTH OF SALMON IN SPRUCE POND 1980 (FALL FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
1	M													
1	F													
1	ALL	6.	99.2	5.9	89.0	105.0	12.7	2.3	9.0	16.0	22.3	2.2	19.0	25.0
2	M													
2	F													
2	ALL	26.	130.0	13.8	110.0	165.0	26.0	8.3	14.0	46.0	28.9	4.9	19.0	38.0
3	M													
3	F													
3	ALL	26.	158.0	20.2	121.0	208.0	44.7	15.0	22.0	90.0	41.2	7.8	31.0	61.0
4	M													
4	F													
4	ALL	19.	208.8	16.5	190.0	252.0	92.7	21.5	68.0	151.0	52.8	6.3	42.0	65.0
5	M													
5	F													
5	ALL	4.	236.7	22.6	220.0	270.0	138.0	59.9	97.0	227.0	64.3	9.9	50.0	73.0
ALL	M													
ALL	F													
ALL	ALL	81.	160.5	41.2	89.0	270.0	52.2	38.1	9.0	227.0	39.7	13.1	19.0	73.0

TOTAL NUMBER OF FISH 81

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 2.9 S.D. 1.0

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.7593

CORRELATION COEFF. 0.8963

REGRESSION LINE:

LN LENGTH(MM) = 2.5642 + 0.684 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:

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INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
  LOG WEIGHT(G) =-4.2905 +  2.695 (LOG LENGTH(MM))          CORRELATION COEFF.    0.9892
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PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN SPRUCE POND 1980 (FALL FYKENETTED FISH ONLY)

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	6.	60.4	4.9														
			54.1	68.2														
2	M																	
2	F																	
2	ALL	26.	58.9	7.7	94.5	12.2												
			45.9	75.9	73.2	122.7												
3	M																	
3	F																	
3	ALL	26.	56.8	7.9	91.3	11.6	130.4	15.8										
			44.2	73.6	71.3	111.0	98.1	167.5										
4	M																	
4	F																	
4	ALL	19.	59.6	8.7	98.1	12.8	137.1	21.1	175.9	19.6								
			49.2	81.0	80.4	132.5	107.1	184.0	153.4	224.1								
5	M																	
5	F																	
5	ALL	4.	60.4	8.0	98.1	19.0	140.4	22.2	184.8	10.4	214.7	5.9						
			53.2	68.8	75.9	118.6	111.3	162.1	172.4	197.4	206.8	220.7						
ALL	M																	
ALL	F																	
ALL	ALL	81.	58.6	7.8	94.5	12.6	133.8	18.5	177.4	18.4	214.7	5.9	0.0	0.0	0.0	0.0	0.0	0.0
			44.2	81.0	71.3	132.5	98.1	184.0	153.4	224.1	206.8	220.7	0.0	0.0	0.0	0.0	0.0	0.0

GROWTH OF SALMON IN SPRUCE POND 1980 (FALL FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75										
76 - 80										
81 - 85										
86 - 90	1		1							
91 - 95										
96 - 100	2		2							
101 - 105	3		3							
106 - 110	1			1						
111 - 115	3			3						
116 - 120	3			3						
121 - 125	5			4	1					
126 - 130	3			3						
131 - 135	6			5	1					
136 - 140	3			1	2					
141 - 145	6			2	4					
146 - 150	4			2	2					
151 - 155	5			1	4					
156 - 160	4				4					
161 - 165	1			1						
166 - 170	3				3					
171 - 175										
176 - 180	1				1					
181 - 185	1				1					
186 - 190	1					1				
191 - 195	4				2	2				
196 - 200	3					3				
201 - 205	3					3				
206 - 210	6				1	5				
211 - 215	1					1				
216 - 220	2					1	1			
221 - 225										
226 - 230	3					1	2			
231 - 235										
236 - 240										
241 - 245	1					1				
246 - 250										
251 - 255	1					1				
256 - 260										
261 - 265										
266 - 270	1						1			

TOTAL							
81							
6							
26							
26							
19							
4							

8(viii)

PROGRAM SCALES TABLE ONE GROWTH OF SALMON IN SPRUCE POND 1977-1980 (FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
1	M	1.	84.0	0.0	84.0	84.0	9.0	0.0	9.0	9.0	16.0	0.0	16.0	16.0
1	F													
1	ALL	22.	86.9	10.9	68.0	105.0	9.8	3.4	4.0	16.0	18.7	3.9	12.0	27.0
2	M	1.	110.0	0.0	110.0	110.0	12.0	0.0	12.0	12.0	26.0	0.0	26.0	26.0
2	F	6.	111.7	10.4	100.0	123.0	22.0	9.4	12.0	33.0	30.0	6.3	23.0	40.0
2	ALL	176.	108.8	18.0	68.0	167.0	17.2	8.3	4.0	50.0	22.4	6.2	11.0	40.0
3	M	8.	140.9	19.2	116.0	174.0	32.8	9.5	20.0	45.0	36.0	7.1	25.0	47.0
3	F	4.	139.5	27.7	115.0	170.0	38.0	14.4	18.0	49.0	38.3	7.8	29.0	48.0
3	ALL	214.	142.7	22.6	95.0	208.0	34.6	14.7	12.0	90.0	33.9	8.1	15.0	61.0
4	M	3.	177.0	17.3	167.0	197.0	56.7	20.3	43.0	80.0	52.3	17.2	40.0	72.0
4	F	3.	176.3	7.5	169.0	184.0	57.3	10.3	46.0	66.0	51.7	12.7	42.0	66.0
4	ALL	198.	183.1	20.5	131.0	255.0	66.7	40.7	27.0	551.0	44.0	8.6	26.0	72.0
5	M													
5	F													
5	ALL	70.	210.6	24.1	146.0	283.0	97.4	36.6	46.0	279.0	54.2	9.3	30.0	77.0
6	M	1.	233.0	0.0	233.0	233.0	108.0	0.0	108.0	108.0	73.0	0.0	73.0	73.0
6	F													
6	ALL	11.	240.5	27.4	210.0	292.0	138.9	44.6	90.0	211.0	66.2	6.3	55.0	73.0
7	M													
7	F													
7	ALL	1.	215.0	0.0	215.0	215.0	84.0	0.0	84.0	84.0	61.0	0.0	61.0	61.0
ALL	M	14.	148.9	38.1	84.0	233.0	40.1	26.4	9.0	108.0	40.0	16.1	16.0	73.0
ALL	F	13.	135.2	30.9	100.0	184.0	35.1	17.8	12.0	66.0	37.5	11.7	23.0	66.0
ALL	ALL	692.	152.4	42.7	68.0	292.0	46.6	39.3	4.0	551.0	36.0	13.6	11.0	77.0

TOTAL NUMBER OF FISH 692

NO. OF IMMATURE FISH 16

NO. OF MATURE FISH 4

AVE AGE (NO. ANNULI) 3.2 S.D. 1.1

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.7593

CORRELATION COEFF. 0.9029

REGRESSION LINE:

LN LENGTH(MM) = 2.7056 + 0.650 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:
LOG WEIGHT(G) =-3.9366 + 2.526 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9826

FOR FEMALES:
LOG WEIGHT(G) =-3.4071 + 2.307 (LOG LENGTH(MM)) CORRELATION COEFF. 0.8997

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.1089 + 2.611 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9742

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN SPRUCE POND 1977-1980 (FYKENETTED FISH ONLY)

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M	1.	67.0	0.0														
			67.0	67.0														
1	F																	
1	ALL	22.	57.6	8.2														
			43.9	78.4														
2	M	1.	65.9	0.0	99.6	0.0												
			65.9	65.9	99.6	99.6												
2	F	6.	63.3	7.7	93.4	9.4												
			51.2	72.9	84.3	105.8												
2	ALL	176.	55.4	9.4	88.3	13.5												
			34.0	89.2	60.8	144.8												
3	M	8.	60.8	12.7	95.1	11.3	131.1	18.0										
			47.6	85.4	73.6	108.5	107.2	162.2										
3	F	4.	52.9	10.2	93.2	13.1	125.1	21.6										
			41.1	65.2	79.7	108.5	104.3	152.5										
3	ALL	214.	56.8	11.0	91.6	15.9	125.7	22.2										
			35.0	102.9	55.9	149.4	80.3	190.5										
4	M	3.	57.0	6.3	87.3	14.7	117.0	20.2	160.3	6.1								
			49.8	61.6	71.7	101.0	95.2	135.2	155.1	167.0								
4	F	3.	64.4	2.2	95.6	6.6	136.7	7.2	166.4	5.5								
			61.9	66.0	88.5	101.6	130.0	144.3	160.0	169.8								
4	ALL	198.	57.0	9.3	91.4	12.8	129.8	18.3	167.4	20.4								
			31.6	81.0	60.8	132.5	83.2	184.0	112.4	233.5								
5	M																	
5	F																	
5	ALL	70.	59.0	11.3	93.2	16.1	128.2	22.1	164.6	26.3	193.7	27.8						
			35.5	104.8	59.4	151.3	87.1	184.5	106.0	231.9	130.2	256.6						
6	M	1.	58.2	0.0	93.4	0.0	157.2	0.0	197.3	0.0	210.3	0.0	229.0	0.0				
			58.2	58.2	93.4	93.4	157.2	157.2	197.3	197.3	210.3	210.3	229.0	229.0				
6	F																	
6	ALL	11.	58.7	6.5	91.9	12.2	128.7	20.2	165.4	21.9	192.4	25.3	217.6	23.6				
			44.4	68.8	64.9	112.7	101.3	157.2	132.9	198.4	163.9	232.7	184.5	247.7				
7	M																	
7	F																	
7	ALL	1.	59.2	0.0	80.5	0.0	112.5	0.0	156.5	0.0	169.6	0.0	194.3	0.0	215.0	0.0		
			59.2	59.2	80.5	80.5	112.5	112.5	156.5	156.5	169.6	169.6	194.3	194.3	215.0	215.0		
ALL	M	14.	60.6	10.1	93.5	11.2	129.7	19.9	169.6	19.1	210.3	0.0	229.0	0.0	0.0	0.0	0.0	0.0
			47.6	85.4	71.7	108.5	95.2	162.2	155.1	197.3	210.3	210.3	229.0	229.0	0.0	0.0	0.0	0.0
ALL	F	13.	60.3	8.8	93.9	9.4	130.1	17.0	166.4	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			41.1	72.9	79.7	108.5	104.3	152.5	160.0	169.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ALL	ALL	692.	56.8	10.0	90.8	14.4	127.7	20.6	166.6	22.0	193.2	27.3	215.6	23.5	215.0	0.0	0.0	0.0
			31.6	109.8	55.9	151.3	80.3	190.5	106.0	233.5	130.2	256.6	184.5	247.7	215.0	215.0	0.0	0.0

GROWTH OF SALMON IN SPRUCE POND 1977-1980 (FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70	3		2	1						
71 - 75	2		1	1						
76 - 80	9		4	5						
81 - 85	13		5	8						
86 - 90	11		3	8						
91 - 95	21		1	19	1					
96 - 100	26		3	20	3					
101 - 105	36		3	26	7					
106 - 110	18			14	4					
111 - 115	26			18	8					
116 - 120	30			14	16					
121 - 125	28			14	14					
126 - 130	20			8	12					
131 - 135	32			8	22	2				
136 - 140	24			3	20	1				
141 - 145	20			3	16	1				
146 - 150	13			2	9	1	1			
151 - 155	26			1	16	8	1			
156 - 160	25				21	4				
161 - 165	31			1	10	20				
166 - 170	32			2	12	18				
171 - 175	29				7	22				
176 - 180	25				5	17	3			
181 - 185	30				4	24	2			
186 - 190	28				1	19	8			
191 - 195	24				4	14	6			
196 - 200	18				1	13	4			
201 - 205	10					8	2			
206 - 210	19				1	9	8	1		
211 - 215	11					3	7		1	
216 - 220	16					4	9	3		
221 - 225	5					2	2	1		
226 - 230	8					2	6			
231 - 235	6					3	2	1		
236 - 240	4						4			
241 - 245	2					1	1			
246 - 250	1							1		
251 - 255	2					2				
256 - 260	2						1	1		
261 - 265	2						1	1		
266 - 270	2						1	1		
271 - 275										

276 - 280								
281 - 285	1					1		
286 - 290								
291 - 295	1						1	
TOTAL	692	22	176	214	198	70	11	1

APPENDIX 9: ATLANTIC SALMON FROM HEADWATER POND BY SEASON AND YEAR OF CAPTURE AND THE COMBINED DATA

(i) August-September 1978 (trap and fyke net) 170
(See Appendix 6 (i) also.)

(ii) Spring 1979 (fyke net) 173

(iii) Fall 1979 (fyke net) 177

(iv) Spring 1980 (fyke net) 181

(v) Fall 1980 (fyke net) 186

(vi) 1978-80 (trap and fyke net) 191

9(i)

PROGRAM SCALES TABLE ONE GROWTH OF SALMON IN HEADWATER POND 1978 (TRAP AND FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
1	M													
1	F													
1	ALL	2.	84.0	2.8	82.0	86.0	7.0	1.4	6.0	8.0	16.5	2.1	15.0	18.0
2	M													
2	F													
2	ALL	15.	121.4	16.7	99.0	146.0	19.6	8.9	10.0	36.0	27.7	7.5	18.0	43.0
3	M													
3	F													
3	ALL	5.	138.8	13.8	126.0	158.0	27.8	10.3	19.0	44.0	29.4	5.6	25.0	39.0
5	M													
5	F													
5	ALL	1.	180.0	0.0	180.0	180.0	67.0	0.0	67.0	67.0	50.0	0.0	50.0	50.0
6	M													
6	F													
6	ALL	2.	240.0	28.3	220.0	260.0	144.0	56.6	104.0	184.0	68.5	10.6	61.0	76.0
ALL	M													
ALL	F													
ALL	ALL	25.	133.7	39.5	82.0	260.0	32.1	38.0	6.0	184.0	31.3	14.1	15.0	76.0

TOTAL NUMBER OF FISH 25
NO. OF IMMATURE FISH 0
NO. OF MATURE FISH 0
AVE AGE (NO. ANNULI) 2.6 S.D. 1.3

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.7593

CORRELATION COEFF. 0.9155
REGRESSION LINE:
LN LENGTH(MM) = 2.7952 + 0.614 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:

```
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
  LOG WEIGHT(G) F=4.9719 +  2.993 (LOG LENGTH(MM))          CORRELATION COEFF.    0.9894
```

See Appendix 6(i) for lengths at annulus formation.

GROWTH OF SALMON IN HEADWATER POND 1978 (TRAP AND FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75										
76 - 80										
81 - 85	1		1							
86 - 90	1		1							
91 - 95										
96 - 100	1			1						
101 - 105	3			3						
106 - 110	1			1						
111 - 115	1			1						
116 - 120	2			2						
121 - 125	1			1						
126 - 130	3			1	2					
131 - 135	2			1	1					
136 - 140	1			1						
141 - 145	2			2						
146 - 150	2			1	1					
151 - 155										
156 - 160	1				1					
161 - 165										
166 - 170										
171 - 175										
176 - 180	1						1			
181 - 185										
186 - 190										
191 - 195										
196 - 200										
201 - 205										
206 - 210										
211 - 215										
216 - 220	1							1		
221 - 225										
226 - 230										
231 - 235										
236 - 240										
241 - 245										
246 - 250										
251 - 255										
256 - 260	1							1		
TOTAL	25		2	15	5		1	2		

9(ii)

PROGRAM SCALES TABLE ONE GROWTH OF SALMON IN HEADWATER POND 1979 (SPRING FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
2	M	2.	102.0	2.8	100.0	104.0	10.5	0.7	10.0	11.0	21.5	0.7	21.0	22.0
2	F													
2	ALL	12.	108.6	12.5	95.0	136.0	15.3	7.2	10.0	34.0	24.8	4.5	21.0	33.0
3	M	16.	147.2	18.9	105.0	170.0	36.1	12.5	14.0	54.0	37.0	6.6	28.0	50.0
3	F	8.	147.9	23.6	113.0	175.0	35.3	14.6	16.0	55.0	38.1	8.8	27.0	53.0
3	ALL	98.	156.2	18.5	105.0	195.0	42.7	15.4	14.0	115.0	38.8	7.5	26.0	62.0
4	M	11.	164.4	10.0	153.0	181.0	46.5	10.7	33.0	62.0	48.9	6.5	37.0	58.0
4	F	10.	161.3	19.4	113.0	185.0	45.1	13.3	17.0	66.0	43.4	8.9	29.0	54.0
4	ALL	38.	176.5	24.1	113.0	228.0	58.8	22.1	17.0	119.0	48.4	8.3	29.0	70.0
5	M	1.	174.0	0.0	174.0	174.0	56.0	0.0	56.0	56.0	55.0	0.0	55.0	55.0
5	F	1.	177.0	0.0	177.0	177.0	60.0	0.0	60.0	60.0	45.0	0.0	45.0	45.0
5	ALL	6.	202.5	34.5	170.0	256.0	85.7	36.1	56.0	150.0	55.3	10.8	43.0	72.0
6	M													
6	F	1.	251.0	0.0	251.0	251.0	161.0	0.0	161.0	161.0	97.0	0.0	97.0	97.0
6	ALL	1.	251.0	0.0	251.0	251.0	161.0	0.0	161.0	161.0	97.0	0.0	97.0	97.0
ALL	M	30.	151.4	21.9	100.0	181.0	38.9	14.6	10.0	62.0	40.9	10.1	21.0	58.0
ALL	F	20.	161.2	30.0	113.0	251.0	47.7	30.2	16.0	161.0	44.0	15.1	27.0	97.0
ALL	ALL	155.	159.9	28.5	95.0	256.0	47.0	24.1	10.0	161.0	41.1	11.1	21.0	97.0

TOTAL NUMBER OF FISH 155

NO. OF IMMATURE FISH 11

NO. OF MATURE FISH 5

AVE AGE (NO. ANNULI) 3.3 S.D. 0.7

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.7593

CORRELATION COEFF. 0.7930

REGRESSION LINE:

LN LENGTH(MM) = 3.0250 + 0.552 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:

LOG WEIGHT(G) =-5.0346 + 3.027 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9889

FOR FEMALES:
LOG WEIGHT(G) =-4.7013 + 2.872 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9969

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.3839 + 2.732 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9558

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN HEADWATER POND 1979 (SPRING FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
2	M	2.	51.6	0.2	89.9	6.0												
			51.4	51.7	85.6	94.1												
2	F																	
2	ALL	12.	60.7	11.1	95.6	11.0												
			51.4	88.4	83.7	117.6												
3	M	16.	61.5	9.0	98.9	13.3	136.2	17.7										
			44.9	76.7	68.5	120.3	96.1	163.2										
3	F	8.	60.2	7.5	100.2	12.8	138.4	18.8										
			48.9	71.0	84.0	115.2	109.5	156.7										
3	ALL	98.	63.1	9.1	105.6	12.1	145.0	16.3										
			43.7	89.8	68.5	132.8	96.1	179.3										
4	M	11.	58.1	8.0	93.1	12.6	123.3	14.0	153.3	11.3								
			46.6	73.2	76.9	110.0	106.2	146.0	138.7	171.5								
4	F	10.	53.4	7.6	89.3	14.7	120.7	18.0	149.4	18.8								
			35.8	60.4	65.3	107.9	89.6	147.8	105.7	172.2								
4	ALL	38.	60.9	10.6	99.6	17.8	133.7	23.9	166.6	25.7								
			35.8	92.3	65.3	140.7	89.6	193.0	105.7	222.3								
5	M	1.	50.6	0.0	73.4	0.0	118.6	0.0	158.4	0.0	168.3	0.0						
			50.6	50.6	73.4	73.4	118.6	118.6	158.4	158.4	168.3	168.3						
5	F	1.	49.2	0.0	95.4	0.0	115.6	0.0	133.9	0.0	172.0	0.0						
			49.2	49.2	95.4	95.4	115.6	115.6	133.9	133.9	172.0	172.0						
5	ALL	6.	62.0	13.7	105.3	29.9	141.6	36.0	169.2	33.7	196.6	32.4						
			49.2	83.9	73.4	144.7	104.8	199.2	132.5	217.3	168.3	249.0						
6	M																	
6	F	1.	59.6	0.0	102.3	0.0	162.0	0.0	200.7	0.0	226.8	0.0	244.7	0.0				
			59.6	59.6	102.3	102.3	162.0	162.0	200.7	200.7	226.8	226.8	244.7	244.7				
6	ALL	1.	59.6	0.0	102.3	0.0	162.0	0.0	200.7	0.0	226.8	0.0	244.7	0.0				
			59.6	59.6	102.3	102.3	162.0	162.0	200.7	200.7	226.8	226.8	244.7	244.7				
ALL	M	30.	59.3	8.6	95.3	13.3	130.5	17.1	153.7	10.9	168.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			44.9	76.7	68.5	120.3	96.1	163.2	138.7	171.5	168.3	168.3	0.0	0.0	0.0	0.0	0.0	0.0
ALL	F	20.	56.2	7.9	94.6	14.0	129.6	20.6	152.4	23.2	199.4	38.7	244.7	0.0	0.0	0.0	0.0	0.0
			35.8	71.0	65.3	115.2	89.6	162.0	105.7	200.7	172.0	226.8	244.7	244.7	0.0	0.0	0.0	0.0
ALL	ALL	155.	62.3	9.8	103.3	14.7	142.0	20.1	167.7	26.7	200.9	31.7	244.7	0.0	0.0	0.0	0.0	0.0
			35.8	92.3	65.3	144.7	89.6	199.2	105.7	222.3	168.3	249.0	244.7	244.7	0.0	0.0	0.0	0.0

GROWTH OF SALMON IN HEADWATER POND 1979 (SPRING FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75										
76 - 80										
81 - 85										
86 - 90										
91 - 95	2			2						
96 - 100	1			1						
101 - 105	4			3	1					
106 - 110	4			4						
111 - 115	4				3	1				
116 - 120	1				1					
121 - 125	5				5					
126 - 130	3			1	2					
131 - 135	6				6					
136 - 140	1			1						
141 - 145	4				4					
146 - 150	4				4					
151 - 155	17				13	4				
156 - 160	16				12	4				
161 - 165	21				15	6				
166 - 170	18				14	3	1			
171 - 175	15				9	5	1			
176 - 180	7				3	3	1			
181 - 185	5				3	2				
186 - 190	2				2					
191 - 195	2				1	1				
196 - 200	2					2				
201 - 205	3					3				
206 - 210										
211 - 215	1						1			
216 - 220	1					1				
221 - 225	2					1	1			
226 - 230	2					2				
231 - 235										
236 - 240										
241 - 245										
246 - 250										
251 - 255	1							1		
256 - 260	1						1			
TOTAL	155			12	98	38	6	1		

9(iii)

PROGRAM SCALES TABLE ONE GROWTH OF SALMON IN HEADWATER POND 1979 (FALL FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
2	M													
2	F													
2	ALL	11.	125.3	18.1	89.0	154.0	25.0	7.5	9.0	37.0	35.2	6.1	24.0	46.0
3	M													
3	F													
3	ALL	40.	164.3	24.3	120.0	220.0	55.1	23.4	20.0	125.0	49.8	8.5	31.0	66.0
4	M													
4	F													
4	ALL	22.	191.2	26.6	153.0	238.0	84.0	32.9	38.0	158.0	60.2	13.4	35.0	82.0
5	M													
5	F													
5	ALL	6.	213.5	18.4	192.0	243.0	95.2	18.8	74.0	123.0	76.7	10.5	60.0	92.0
ALL	M													
ALL	F													
ALL	ALL	79.	170.1	33.5	89.0	243.0	62.0	32.2	9.0	158.0	52.7	14.3	24.0	92.0

TOTAL NUMBER OF FISH 79

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 3.3 S.D. 0.8

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.7593

CORRELATION COEFF. 0.8230

REGRESSION LINE:

LN LENGTH(MM) = 2.6981 + 0.616 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.1547 + 2.649 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9693

RHOGRAM SCALES TABLE TWO GROWTH OF SALMON IN HEADWATER POND 1979 (FALL FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
			EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)															
2	M																	
2	F																	
2	ALL	11.	61.4	10.0	93.8	9.7												
			49.2	80.5	78.4	109.3												
3	M																	
3	F																	
3	ALL	40.	59.7	9.4	99.8	15.9	135.4	22.5										
			43.1	85.9	77.3	145.9	97.0	189.3										
4	M																	
4	F																	
4	ALL	22.	60.3	8.5	103.5	15.0	143.9	25.2	169.1	25.9								
			43.2	78.1	69.5	133.3	91.9	192.3	120.8	219.7								
5	M																	
5	F																	
5	ALL	6.	62.9	2.1	103.8	13.5	131.6	20.5	169.8	12.5	196.5	17.0						
			60.3	66.2	90.5	122.9	114.8	165.2	154.0	187.7	177.8	223.3						
ALL	M																	
ALL	F																	
ALL	ALL	79.	60.3	8.8	100.3	14.9	137.8	23.3	169.2	23.5	196.5	17.0	0.0	0.0	0.0	0.0	0.0	0.0
			43.1	85.9	69.5	145.9	91.9	192.3	120.8	219.7	177.8	223.3	0.0	0.0	0.0	0.0	0.0	0.0

GROWTH OF SALMON IN HEADWATER POND 1979 (FALL FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75										
76 - 80										
81 - 85										
86 - 90	1			1						
91 - 95										
96 - 100										
101 - 105										
106 - 110	1			1						
111 - 115	1			1						
116 - 120	2			1	1					
121 - 125	3			2	1					
126 - 130	1				1					
131 - 135	4			2	2					
136 - 140	3			1	2					
141 - 145	3			1	2					
146 - 150	2				2					
151 - 155	9			1	6	2				
156 - 160	5				2	3				
161 - 165	7				5	2				
166 - 170	2				2					
171 - 175	3				2	1				
176 - 180	1				1					
181 - 185	4				4					
186 - 190	1					1				
191 - 195	5				3	1	1			
196 - 200	3				2		1			
201 - 205	5					5				
206 - 210	3					2	1			
211 - 215	1					1				
216 - 220	4				2	1	1			
221 - 225	3					2	1			
226 - 230										
231 - 235										
236 - 240	1					1				
241 - 245	1						1			
TOTAL	79			11	40	22	6			

9(iv)

PROGRAM SCALES TABLE ONE GROWTH OF SALMON IN HEADWATER POND 1980 (SPRING FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
1	M													
1	F													
1	ALL	1.	89.0	0.0	89.0	89.0	13.0	0.0	13.0	13.0	12.0	0.0	12.0	12.0
2	M													
2	F													
2	ALL	3.	100.0	5.3	94.0	104.0	10.7	1.2	10.0	12.0	20.3	2.1	18.0	22.0
3	M													
3	F													
3	ALL	22.	149.1	22.2	113.0	184.0	36.4	13.3	17.0	59.0	34.5	7.0	20.0	46.0
4	M													
4	F													
4	ALL	42.	192.4	26.5	132.0	260.0	71.7	27.3	26.0	161.0	47.1	7.8	29.0	68.0
5	M													
5	F													
5	ALL	14.	226.9	18.6	185.0	260.0	110.3	26.9	62.0	174.0	58.2	8.0	42.0	72.0
6	M													
6	F													
6	ALL	2.	304.0	26.9	285.0	323.0	281.0	55.2	242.0	320.0	82.5	3.5	80.0	85.0
ALL	M													
ALL	F													
ALL	ALL	84.	184.9	43.8	89.0	323.0	71.0	48.7	10.0	320.0	45.1	13.5	12.0	85.0

TOTAL NUMBER OF FISH 84

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 3.8 S.D. 0.9

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.7593

CORRELATION COEFF. 0.9161

REGRESSION LINE:

LN LENGTH(MM) = 2.6214 + 0.684 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.2524 + 2.668 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9898

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN HEADWATER POND 1980 (SPRING FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	1.	78.4	0.0														
			78.4	78.4														
2	M																	
2	F																	
2	ALL	3.	52.2	3.5	84.9	8.1												
			49.4	56.2	77.2	93.4												
3	M																	
3	F																	
3	ALL	22.	64.8	7.8	100.8	11.2	140.7	19.8										
			54.0	79.7	81.4	119.0	106.4	168.4										
4	M																	
4	F																	
4	ALL	42.	63.7	9.1	106.0	12.4	145.9	21.4	183.9	25.1								
			48.9	89.6	85.5	134.8	110.9	195.6	132.0	246.4								
5	M																	
5	F																	
5	ALL	14.	64.8	10.3	107.6	16.6	147.8	19.6	188.1	16.3	218.9	16.3						
			48.7	81.1	79.4	135.3	122.6	175.3	153.1	210.8	180.3	243.2						
6	M																	
6	F																	
6	ALL	2.	71.2	1.4	113.3	1.1	177.6	13.2	211.2	11.1	246.6	11.8	293.5	12.0				
			70.3	72.2	112.5	114.1	168.2	186.9	203.4	219.1	238.3	254.9	285.0	302.0				
ALL	M																	
ALL	F																	
ALL	ALL	84.	64.1	9.1	104.3	13.3	145.6	21.0	185.9	23.3	222.4	18.2	293.5	12.0	0.0	0.0	0.0	0.0
			48.7	89.6	77.2	135.3	106.4	195.6	132.0	246.4	180.3	254.9	285.0	302.0	0.0	0.0	0.0	0.0

GROWTH OF SALMON IN HEADWATER POND 1980 (SPRING FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75										
76 - 80										
81 - 85										
86 - 90	1		1							
91 - 95	1			1						
96 - 100										
101 - 105	2			2						
106 - 110										
111 - 115	1				1					
116 - 120	1				1					
121 - 125	3				3					
126 - 130	1				1					
131 - 135	3				2	1				
136 - 140	1				1					
141 - 145	2				1	1				
146 - 150	2				2					
151 - 155	1				1					
156 - 160	4				1	3				
161 - 165	1				1					
166 - 170	5				2	3				
171 - 175	4				2	2				
176 - 180	5				2	3				
181 - 185	9				1	7	1			
186 - 190	4					4				
191 - 195										
196 - 200	2					2				
201 - 205	4					4				
206 - 210	1						1			
211 - 215	9					7	2			
216 - 220										
221 - 225	5					1	4			
226 - 230										
231 - 235	4					2	2			
236 - 240	1						1			
241 - 245	1						1			
246 - 250	2					1	1			
251 - 255										
256 - 260	2					1	1			
261 - 265										
266 - 270										
271 - 275										

276 - 280							
281 - 285	1						1
286 - 290							
291 - 295							
296 - 300							
301 - 305							
306 - 310							
311 - 315							
316 - 320							
321 - 325	1						1
TOTAL	84	1	3	22	42	14	2

PROGRAM SCALES TABLE ONE GROWTH OF SALMON IN HEADWATER POND 1980 (FALL FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
1	M													
1	F													
1	ALL	1.	92.0	0.0	92.0	92.0	13.0	0.0	13.0	13.0	21.0	0.0	21.0	21.0
2	M													
2	F													
2	ALL	11.	135.9	11.9	115.0	149.0	32.1	8.5	21.0	46.0	31.5	3.8	25.0	36.0
3	M													
3	F													
3	ALL	19.	172.4	14.6	145.0	200.0	58.4	11.5	42.0	83.0	43.4	8.8	27.0	55.0
4	M													
4	F													
4	ALL	20.	210.2	24.5	167.0	268.0	106.0	38.9	64.0	231.0	56.1	9.3	41.0	73.0
5	M													
5	F	1.	232.0	0.0	232.0	232.0	139.0	0.0	139.0	139.0	57.0	0.0	57.0	57.0
5	ALL	3.	262.3	26.7	232.0	282.0	213.7	64.9	139.0	257.0	77.7	18.0	57.0	90.0
ALL	M													
ALL	F	1.	232.0	0.0	232.0	232.0	139.0	0.0	139.0	139.0	57.0	0.0	57.0	57.0
ALL	ALL	54.	182.5	40.4	92.0	282.0	78.4	52.5	13.0	257.0	47.2	15.0	21.0	90.0

TOTAL NUMBER OF FISH 54

NO. OF IMMATURE FISH 1

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 3.2 S.D. 0.9

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.7593

CORRELATION COEFF. 0.8717

REGRESSION LINE:

LN LENGTH(MM) = 2.8329 + 0.617 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:

INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.2009 + 2.672 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9805

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN HEADWATER POND 1980 (FALL FYKENETTED FISH ONLY)

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	1.	59.9	0.0														
			59.9	59.9														
2	M																	
2	F																	
2	ALL	11.	56.2	6.7	92.6	9.2												
			44.9	65.9	78.4	109.6												
3	M																	
3	F																	
3	ALL	19.	61.7	8.5	98.8	11.1	140.9	14.4										
			48.9	79.7	76.9	119.3	112.1	163.8										
4	M																	
4	F																	
4	ALL	20.	59.5	6.8	101.4	10.7	142.6	16.5	182.4	22.9								
			46.0	75.6	80.5	117.6	110.5	168.7	138.0	225.7								
5	M																	
5	F	1.	57.6	0.0	95.5	0.0	144.6	0.0	170.9	0.0	209.8	0.0						
			57.6	57.6	95.5	95.5	144.6	144.6	170.9	170.9	209.8	209.8						
5	ALL	3.	55.6	4.6	97.5	19.8	154.3	30.2	198.0	33.1	236.6	23.8						
			50.3	58.9	78.8	118.2	130.0	188.1	170.9	234.9	209.8	255.4						
ALL	M																	
ALL	F	1.	57.6	0.0	95.5	0.0	144.6	0.0	170.9	0.0	209.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			57.6	57.6	95.5	95.5	144.6	144.6	170.9	170.9	209.8	209.8	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	54.	59.4	7.4	98.4	11.2	142.6	16.5	184.4	24.1	236.6	23.8	0.0	0.0	0.0	0.0	0.0	0.0
			44.9	79.7	76.9	119.3	110.5	188.1	138.0	234.9	209.8	255.4	0.0	0.0	0.0	0.0	0.0	0.0

GROWTH OF SALMON IN HEADWATER POND 1980 (FALL FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75										
76 - 80										
81 - 85										
86 - 90										
91 - 95	1		1							
96 - 100										
101 - 105										
106 - 110										
111 - 115	1			1						
116 - 120										
121 - 125	2			2						
126 - 130	1			1						
131 - 135	2			2						
136 - 140										
141 - 145	2			1	1					
146 - 150	4			4						
151 - 155	1				1					
156 - 160	1				1					
161 - 165	3				3					
166 - 170	5				3	2				
171 - 175	4				4					
176 - 180	2				1	1				
181 - 185	1				1					
186 - 190	2				1	1				
191 - 195	3				1	2				
196 - 200	3				2	1				
201 - 205	1					1				
206 - 210	2					2				
211 - 215	1					1				
216 - 220	2					2				
221 - 225	2					2				
226 - 230	2					2				
231 - 235	2					1	1			
236 - 240	1					1				
241 - 245										
246 - 250										
251 - 255										
256 - 260										
261 - 265										
266 - 270	1					1				
271 - 275	1						1			

276 - 280						
281 - 285	1					1
TOTAL	54	1	11	19	20	3

9(vi)

PROGRAM SCALES TABLE ONE GROWTH OF SALMON IN HEADWATER POND 1978-1980 (TRAP AND FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
1	M													
1	F													
1	ALL	4.	87.3	4.3	82.0	92.0	10.0	3.6	6.0	13.0	16.5	3.9	12.0	21.0
2	M	2.	102.0	2.8	100.0	104.0	10.5	0.7	10.0	11.0	21.5	0.7	21.0	22.0
2	F													
2	ALL	52.	121.1	17.8	89.0	154.0	21.9	10.1	9.0	46.0	29.0	7.0	18.0	46.0
3	M	16.	147.2	18.9	105.0	170.0	36.1	12.5	14.0	54.0	37.0	6.6	28.0	50.0
3	F	8.	147.9	23.6	113.0	175.0	35.3	14.6	16.0	55.0	38.1	8.8	27.0	53.0
3	ALL	184.	158.3	21.0	105.0	220.0	45.8	18.4	14.0	125.0	40.9	9.4	20.0	66.0
4	M	11.	164.4	10.0	153.0	181.0	46.5	10.7	33.0	62.0	48.9	6.5	37.0	58.0
4	F	10.	161.3	19.4	113.0	185.0	45.1	13.3	17.0	66.0	43.4	8.9	29.0	54.0
4	ALL	122.	190.1	27.6	113.0	268.0	75.5	33.0	17.0	231.0	51.3	10.6	29.0	82.0
5	M	1.	174.0	0.0	174.0	174.0	56.0	0.0	56.0	56.0	55.0	0.0	55.0	55.0
5	F	2.	204.5	38.9	177.0	232.0	99.5	55.9	60.0	139.0	51.0	8.5	45.0	57.0
5	ALL	30.	221.3	28.3	170.0	282.0	111.2	47.3	56.0	257.0	63.0	13.4	42.0	92.0
6	M													
6	F	1.	251.0	0.0	251.0	251.0	161.0	0.0	161.0	161.0	97.0	0.0	97.0	97.0
6	ALL	5.	267.8	38.6	220.0	323.0	202.2	82.4	104.0	320.0	79.8	13.1	61.0	97.0
ALL	M	30.	151.4	21.9	100.0	181.0	38.9	14.6	10.0	62.0	40.9	10.1	21.0	58.0
ALL	F	21.	164.6	33.0	113.0	251.0	52.0	35.6	16.0	161.0	44.7	15.0	27.0	97.0
ALL	ALL	397.	168.6	38.0	82.0	323.0	58.4	39.6	6.0	320.0	44.5	14.1	12.0	97.0

TOTAL NUMBER OF FISH 397

NO. OF IMMATURE FISH 12

NO. OF MATURE FISH 5

AVE AGE (NO. ANNULI) 3.3 S.D. 0.9

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.7593

CORRELATION COFFF. 0.8378

REGRESSION LINE:

LN LENGTH(MM) = 2.8967 + 0.589 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:
LOG WEIGHT(G) =-5.0346 + 3.027 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9889

FOR FEMALES:
LOG WEIGHT(G) =-4.8186 + 2.926 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9968

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.4336 + 2.759 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9735

PROGRAM SCALES TABLE TWO GROWTH OF SALMON IN HEADWATER POND 1978-1980 (TRAP AND FYKENETTED FISH ONLY)

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	4.	64.0	10.1														
			55.2	78.4														
2	M	2.	51.6	0.2	89.9	6.0												
			51.4	51.7	85.6	94.1												
2	F																	
2	ALL	52.	58.6	9.5	93.8	10.5												
			44.9	88.4	77.2	117.6												
3	M	16.	61.5	9.0	98.9	13.3	136.2	17.7										
			44.9	76.7	68.5	120.3	96.1	163.2										
3	F	8.	60.2	7.5	100.2	12.8	138.4	18.8										
			48.9	71.0	84.0	115.2	109.5	156.7										
3	ALL	184.	62.2	9.1	102.6	13.3	141.1	19.0										
			43.1	89.8	68.5	145.9	88.2	189.3										
4	M	11.	58.1	8.0	93.1	12.6	123.3	14.0	153.3	11.3								
			46.6	73.2	76.9	110.0	106.2	146.0	138.7	171.5								
4	F	10.	53.4	7.6	89.3	14.7	120.7	18.0	149.4	18.8								
			35.8	60.4	65.3	107.9	89.6	147.8	105.7	172.2								
4	ALL	122.	61.5	9.2	102.8	14.6	141.2	22.6	175.6	26.1								
			35.8	92.3	65.3	140.7	89.6	195.6	105.7	246.4								
5	M	1.	50.6	0.0	73.4	0.0	118.6	0.0	158.4	0.0	168.3	0.0						
			50.6	50.6	73.4	73.4	118.6	118.6	158.4	158.4	168.3	168.3						
5	F	2.	53.4	5.9	95.5	0.1	130.1	20.5	152.4	26.2	190.9	26.8						
			49.2	57.6	95.4	95.5	115.6	144.6	133.9	170.9	172.0	209.8						
5	ALL	30.	62.4	9.9	104.4	19.2	142.3	25.5	179.7	24.7	209.6	26.1						
			48.1	83.9	73.4	144.7	98.6	199.2	131.0	234.9	154.2	255.4						
6	M																	
6	F	1.	59.6	0.0	102.3	0.0	162.0	0.0	200.7	0.0	226.8	0.0	244.7	0.0				
			59.6	59.6	102.3	102.3	162.0	162.0	200.7	200.7	226.8	226.8	244.7	244.7				
6	ALL	5.	67.3	5.2	107.8	7.7	156.1	26.0	190.0	32.9	219.5	37.3	248.4	50.0				
			59.6	72.2	97.0	114.1	117.8	186.9	133.6	219.1	156.9	254.9	173.2	302.0				
ALL	M	30.	59.3	8.6	95.3	13.3	130.5	17.1	153.7	10.9	168.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			44.9	76.7	68.5	120.3	96.1	163.2	138.7	171.5	168.3	168.3	0.0	0.0	0.0	0.0	0.0	0.0
ALL	F	21.	56.3	7.7	94.6	13.6	130.3	20.3	153.8	22.8	202.8	28.1	244.7	0.0	0.0	0.0	0.0	0.0
			35.8	71.0	65.3	115.2	89.6	162.0	105.7	200.7	172.0	226.8	244.7	244.7	0.0	0.0	0.0	0.0
ALL	ALL	397.	61.6	9.3	101.7	14.2	141.5	21.1	176.9	26.0	211.0	27.6	248.4	50.0	0.0	0.0	0.0	0.0
			35.8	92.3	65.3	145.9	88.2	199.2	105.7	246.4	154.2	255.4	173.2	302.0	0.0	0.0	0.0	0.0

GROWTH OF SALMON IN HEADWATER POND 1978-1980 (TRAP AND FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75										
76 - 80										
81 - 85	1		1							
86 - 90	3		2	1						
91 - 95	4		1	3						
96 - 100	2			2						
101 - 105	9			8	1					
106 - 110	6			6						
111 - 115	8			3	4	1				
116 - 120	6			3	3					
121 - 125	14			5	9					
126 - 130	9			3	6					
131 - 135	17			5	11	1				
136 - 140	6			3	3					
141 - 145	13			4	8	1				
146 - 150	14			5	9					
151 - 155	28			1	21	6				
156 - 160	27				17	10				
161 - 165	32				24	8				
166 - 170	30				21	8	1			
171 - 175	26				17	8	1			
176 - 180	16				7	7	2			
181 - 185	19				9	9	1			
186 - 190	9				3	6				
191 - 195	10				5	4	1			
196 - 200	10				4	5	1			
201 - 205	13					13				
206 - 210	6					4	2			
211 - 215	12					9	3			
216 - 220	8				2	4	1	1		
221 - 225	12					6	6			
226 - 230	4					4				
231 - 235	6					3	3			
236 - 240	3					2	1			
241 - 245	2						2			
246 - 250	2					1	1			
251 - 255	1							1		
256 - 260	4					1	2	1		
261 - 265										
266 - 270	1					1				
271 - 275	1						1			

276 - 280							
281 - 285	2					1	1
286 - 290							
291 - 295							
296 - 300							
301 - 305							
306 - 310							
311 - 315							
316 - 320							
321 - 325	1						1
TOTAL	397	4	52	184	122	30	5

APPENDIX 10: SEA-RUN SALMON

(i) 1977 and 1979 197

10(i)

PROGRAM SCALES TABLE ONE GROWTH OF SEA-RUN SALMON IN SPRUCE PD 1977(6+) AND LITTLE GULL LAKE 1979(5+)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
5	M													
5	F													
5	ALL	1.	533.0	0.0	533.0	533.0	827.0	0.0	827.0	827.0	110.0	0.0	110.0	110.0
6	M	1.	572.0	0.0	572.0	572.0	1574.0	0.0	1574.0	1574.0	160.0	0.0	160.0	160.0
6	F													
6	ALL	1.	572.0	0.0	572.0	572.0	1574.0	0.0	1574.0	1574.0	160.0	0.0	160.0	160.0
ALL	M	1.	572.0	0.0	572.0	572.0	1574.0	0.0	1574.0	1574.0	160.0	0.0	160.0	160.0
ALL	F													
ALL	ALL	2.	552.5	27.6	533.0	572.0	1200.5	528.2	827.0	1574.0	135.0	35.4	110.0	160.0

TOTAL NUMBER OF FISH 2

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 5.5 S.D. 0.7

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.7593

CORRELATION COEFF. 1.0000

REGRESSION LINE:

LN LENGTH(MM) = 5.3926 + 0.188 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =******* + 9.113 (LOG LENGTH(MM)) CORRELATION COEFF. 1.0000

PROGRAM SCALES TABLE TWO GROWTH OF SEA-RUN SALMON IN SPRUCE PD 1977(6+) AND LITTLE GULL LAKE 1979(5+)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
5	M																	
5	F																	
5	ALL	1.	52.7	0.0	125.9	0.0	170.5	0.0	206.5	0.0	447.2	0.0						
			52.7	52.7	125.9	125.9	170.5	170.5	206.5	206.5	447.2	447.2						
6	M	1.	68.7	0.0	131.4	0.0	210.7	0.0	258.3	0.0	305.8	0.0	472.2	0.0				
			68.7	68.7	131.4	131.4	210.7	210.7	258.3	258.3	305.8	305.8	472.2	472.2				
6	F																	
6	ALL	1.	68.7	0.0	131.4	0.0	210.7	0.0	258.3	0.0	305.8	0.0	472.2	0.0				
			68.7	68.7	131.4	131.4	210.7	210.7	258.3	258.3	305.8	305.8	472.2	472.2				
ALL	M	1.	68.7	0.0	131.4	0.0	210.7	0.0	258.3	0.0	305.8	0.0	472.2	0.0	0.0	0.0	0.0	0.0
			68.7	68.7	131.4	131.4	210.7	210.7	258.3	258.3	305.8	305.8	472.2	472.2	0.0	0.0	0.0	0.0
ALL	F																	
ALL	ALL	2.	60.7	11.3	128.6	3.9	190.6	28.5	232.4	36.6	376.5	100.0	472.2	0.0	0.0	0.0	0.0	0.0
			52.7	68.7	125.9	131.4	170.5	210.7	206.5	258.3	305.8	447.2	472.2	472.2	0.0	0.0	0.0	0.0

APPENDIX 11: BROOK TROUT FROM SPRUCE POND BY YEAR-CLASS AND YEAR OF CAPTURE

(i) 1977 with overall intercept 200

(ii) 1978 with overall intercept 201

(iii) 1979 with overall intercept 202

(iv) 1980 with overall intercept 203

(v) 1978 with own intercept 204

(vi) 1979 with own intercept 205

(vii) 1980 with own intercept 206

11(i)

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN SPRUCE POND 1977 (FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN MIN	S.D. MAX	SECOND MEAN MIN	S.D. MAX	THIRD MEAN MIN	S.D. MAX	FOURTH MEAN MIN	S.D. MAX	FIFTH MEAN MIN	S.D. MAX	SIXTH MEAN MIN	S.D. MAX	SEVENTH MEAN MIN	S.D. MAX	EIGHTH MEAN MIN	S.D. MAX
4	M																	
4	F	1.	74.3	0.0	119.5	0.0	162.3	0.0	195.5	0.0								
			74.3	74.3	119.5	119.5	162.3	162.3	195.5	195.5								
4	ALL	1.	74.3	0.0	119.5	0.0	162.3	0.0	195.5	0.0								
			74.3	74.3	119.5	119.5	162.3	162.3	195.5	195.5								
ALL	M																	
ALL	F	1.	74.3	0.0	119.5	0.0	162.3	0.0	195.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			74.3	74.3	119.5	119.5	162.3	162.3	195.5	195.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	1.	74.3	0.0	119.5	0.0	162.3	0.0	195.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			74.3	74.3	119.5	119.5	162.3	162.3	195.5	195.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN SPRUCE POND 1978 (FYKENETTED FISH ONLY)

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	50.	63.4	15.2														
			35.6	103.6														
2	M																	
2	F																	
2	ALL	95.	67.4	14.9	125.4	20.4												
			34.2	102.4	78.8	201.7												
3	M																	
3	F																	
3	ALL	61.	64.7	14.0	119.7	20.0	175.4	20.9										
			33.7	102.8	76.8	167.6	119.1	215.6										
4	M																	
4	F	1.	60.4	0.0	100.6	0.0	166.4	0.0	207.5	0.0								
			60.4	60.4	100.6	100.6	166.4	166.4	207.5	207.5								
4	ALL	18.	65.3	11.4	114.5	20.4	177.2	18.1	223.2	20.4								
			46.3	89.9	85.3	160.4	136.5	204.6	168.6	264.7								
5	M																	
5	F																	
5	ALL	4.	64.6	12.2	122.6	15.8	173.2	22.2	213.7	19.2	264.4	15.6						
			47.4	74.7	99.4	135.0	148.8	200.5	187.1	232.0	243.3	278.3						
ALL	M																	
ALL	F	1.	60.4	0.0	100.6	0.0	166.4	0.0	207.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			60.4	60.4	100.6	100.6	166.4	166.4	207.5	207.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	228.	65.5	14.5	122.3	20.4	175.7	20.2	221.4	20.1	264.4	15.6	0.0	0.0	0.0	0.0	0.0	0.0
			33.7	103.6	76.8	201.7	119.1	215.6	168.6	264.7	243.3	278.3	0.0	0.0	0.0	0.0	0.0	0.0

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN SPRUCE POND 1979 (FYKENETTED FISH ONLY)

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	53.	65.0	9.6														
			40.9	85.1														
2	M																	
2	F																	
2	ALL	86.	71.5	15.0	120.8	20.4												
			32.9	105.1	82.0	174.5												
3	M																	
3	F																	
3	ALL	68.	72.1	13.1	132.2	21.2	181.6	22.8										
			43.4	101.8	86.3	182.7	129.0	236.8										
4	M																	
4	F																	
4	ALL	4.	66.7	10.1	114.9	18.2	168.1	33.4	218.5	36.5								
			53.0	77.2	87.7	125.3	120.1	192.0	166.2	250.3								
ALL	M																	
ALL	F																	
ALL	ALL	211.	70.0	13.4	125.6	21.4	180.8	23.4	218.5	36.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			32.9	105.1	82.0	182.7	120.1	236.8	166.2	250.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

11(iv)

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN SPRUCE POND 1980 (FYKENETTED FISH ONLY)

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	10.	59.2	4.0														
			51.8	63.5														
2	M																	
2	F																	
2	ALL	67.	57.7	12.0	117.0	20.3												
			30.1	89.7	81.6	176.0												
3	M																	
3	F																	
3	ALL	78.	58.3	9.9	112.8	18.9	167.6	23.3										
			37.4	83.7	73.9	156.6	118.6	227.5										
4	M																	
4	F																	
4	ALL	20.	56.4	10.2	118.8	19.0	177.9	24.2	225.1	22.4								
			37.7	68.8	77.1	144.0	128.1	232.8	182.4	274.2								
5	M																	
5	F																	
5	ALL	7.	53.5	11.2	107.9	24.4	179.9	17.2	233.8	14.0	296.1	13.0						
			37.0	70.4	81.0	149.7	159.4	209.9	211.8	249.7	268.9	308.0						
ALL	M																	
ALL	F																	
ALL	ALL	182.	57.7	10.5	115.0	19.7	170.4	23.4	227.4	20.7	296.1	13.0	0.0	0.0	0.0	0.0	0.0	0.0
			30.1	89.7	73.9	176.0	118.6	232.8	182.4	274.2	268.9	308.0	0.0	0.0	0.0	0.0	0.0	0.0

11(v)

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN SPRUCE POND 1978 (FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
1	M																	
1	F																	
1	ALL	50.	63.7	15.2														
			36.0	103.8														
2	M																	
2	F																	
2	ALL	95.	67.9	14.9	125.7	20.4												
			34.6	102.9	79.2	201.9												
3	M																	
3	F																	
3	ALL	61.	65.3	14.1	120.2	20.0	175.7	20.9										
			34.2	103.5	77.5	168.1	119.5	215.8										
4	M																	
4	F	1.	61.1	0.0	101.3	0.0	166.9	0.0	207.7	0.0								
			61.1	61.1	101.3	101.3	166.9	166.9	207.7	207.7								
4	ALL	18.	66.0	11.5	115.2	20.4	177.7	18.1	223.4	20.3								
			46.9	90.6	86.1	161.1	137.1	205.2	169.0	264.9								
5	M																	
5	F																	
5	ALL	4.	65.3	12.3	123.4	15.8	173.9	22.1	214.2	19.2	264.6	15.5						
			48.1	75.5	100.2	135.8	149.5	201.1	187.7	232.5	243.5	278.5						
ALL	M																	
ALL	F	1.	61.1	0.0	101.3	0.0	166.9	0.0	207.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			61.1	61.1	101.3	101.3	166.9	166.9	207.7	207.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	228.	66.1	14.5	122.7	20.3	176.0	20.2	221.7	20.0	264.6	15.5	0.0	0.0	0.0	0.0	0.0	0.0
			34.2	103.8	77.5	201.9	119.5	215.8	169.0	264.9	243.5	278.5	0.0	0.0	0.0	0.0	0.0	0.0

11(vi)

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN SPRUCE POND 1979 (FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
1	M																	
1	F																	
1	ALL	53.	65.3	9.6														
			41.3	85.4														
2	M																	
2	F																	
2	ALL	86.	72.0	15.0	121.0	20.4												
			33.3	105.5	82.2	174.7												
3	M																	
3	F																	
3	ALL	68.	72.7	13.1	132.7	21.1	181.8	22.8										
			43.9	102.4	86.8	183.1	129.2	237.2										
4	M																	
4	F																	
4	ALL	4.	67.4	10.2	115.6	18.3	168.5	33.4	218.7	36.5								
			53.6	77.8	88.2	126.0	120.5	192.5	166.3	250.5								
ALL	M																	
ALL	F																	
ALL	ALL	211.	70.4	13.4	125.9	21.4	181.0	23.4	218.7	36.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			33.3	105.5	82.2	183.1	120.5	237.2	166.3	250.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN SPRUCE POND 1980 (FYKENETTED FISH ONLY)

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	10.	65.1	4.4														
			56.9	69.1														
2	M																	
2	F																	
2	ALL	67.	66.5	12.2	122.5	20.0												
			37.2	99.4	87.2	179.8												
3	M																	
3	F																	
3	ALL	78.	68.3	10.5	121.5	19.0	171.7	23.3										
			46.7	96.3	82.4	164.4	123.8	231.3										
4	M																	
4	F																	
4	ALL	20.	67.3	10.9	129.8	18.7	185.4	23.2	228.3	21.6								
			47.0	80.3	89.0	154.3	137.3	238.4	187.1	275.7								
5	M																	
5	F																	
5	ALL	7.	64.9	12.1	121.3	24.6	191.5	16.7	241.9	13.9	298.4	12.2						
			47.0	83.2	94.5	163.0	170.8	220.4	219.9	256.6	272.9	308.0						
ALL	M																	
ALL	F																	
ALL	ALL	182.	67.2	11.0	122.9	19.6	175.6	23.7	231.8	20.6	298.4	12.2	0.0	0.0	0.0	0.0	0.0	0.0
			37.2	99.4	82.4	179.8	123.8	238.4	187.1	275.7	272.9	308.0	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX 12: BROOK TROUT FROM HEADWATER POND BY YEAR-CLASS AND YEAR OF CAPTURE

(i) 1978 with overall intercept 208

(ii) 1979 with overall intercept 209

(iii) 1980 with overall intercept 210

(iv) 1978 with own intercept 211

(v) 1979 with own intercept 212

(vi) 1980 with own intercept 213

12(i)

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN HEADWATER POND 1978 (TRAP AND FYKENETTED FISH ONLY)

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	4.	67.9	15.6														
			58.0	90.9														
2	M																	
2	F																	
2	ALL	33.	78.1	18.6	153.6	24.6												
			42.7	117.4	84.0	198.4												
3	M																	
3	F																	
3	ALL	32.	65.1	13.2	129.0	19.9	203.3	20.2										
			45.6	96.9	96.4	176.8	172.3	249.5										
4	M																	
4	F																	
4	ALL	12.	72.7	11.5	127.3	14.0	183.7	17.2	240.8	21.5								
			57.4	89.8	94.5	143.8	155.5	214.3	198.2	276.2								
5	M																	
5	F	1.	55.5	0.0	146.3	0.0	171.8	0.0	205.1	0.0	253.8	0.0						
			55.5	55.5	146.3	146.3	171.8	171.8	205.1	205.1	253.8	253.8						
5	ALL	3.	64.4	8.0	130.9	17.2	167.1	7.2	217.9	11.1	271.1	19.9						
			55.5	70.8	112.3	146.3	158.8	171.8	205.1	224.7	253.8	292.9						
ALL	M																	
ALL	F	1.	55.5	0.0	146.3	0.0	171.8	0.0	205.1	0.0	253.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			55.5	55.5	146.3	146.3	171.8	171.8	205.1	205.1	253.8	253.8	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	84.	71.4	16.2	139.0	24.3	195.9	21.9	236.2	21.7	271.1	19.9	0.0	0.0	0.0	0.0	0.0	0.0
			42.7	117.4	84.0	198.4	155.5	249.5	198.2	276.2	253.8	292.9	0.0	0.0	0.0	0.0	0.0	0.0

12(ii)

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN HEADWATER POND 1979(FYKENETTED FISH ONLY)

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	45.	63.1	10.7														
			42.2	89.9														
2	M	1.	83.4	0.0	161.9	0.0												
			83.4	83.4	161.9	161.9												
2	F	2.	56.8	8.6	92.7	3.8												
			50.7	62.9	90.0	95.4												
2	ALL	99.	69.7	13.1	123.4	19.9												
			40.2	106.3	84.4	164.6												
3	M	2.	69.0	8.2	139.5	0.3	186.8	11.2										
			63.2	74.7	139.4	139.7	178.9	194.7										
3	F	1.	78.2	0.0	124.2	0.0	166.2	0.0										
			78.2	78.2	124.2	124.2	166.2	166.2										
3	ALL	73.	77.0	14.1	139.9	24.2	187.7	26.5										
			45.3	121.3	91.3	212.8	135.4	263.1										
4	M	2.	67.0	10.7	119.4	1.2	202.7	16.1	273.0	12.9								
			59.4	74.6	118.5	120.3	191.3	214.1	263.8	282.1								
4	F																	
4	ALL	15.	75.9	18.4	139.6	24.7	202.0	18.1	248.4	19.8								
			44.7	114.8	107.8	184.2	165.3	238.1	215.7	282.1								
5	M																	
5	F																	
5	ALL	2.	71.3	1.4	136.6	4.5	180.6	9.1	229.5	6.2	288.2	5.9						
			70.3	72.3	133.5	139.8	174.2	187.1	225.1	233.9	284.0	292.4						
ALL	M	5.	71.1	9.7	136.0	17.7	194.8	14.6	273.0	12.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			59.4	83.4	118.5	161.9	178.9	214.1	263.8	282.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	F	3.	63.9	13.8	103.2	18.4	166.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			50.7	78.2	90.0	124.2	166.2	166.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	234.	71.1	14.2	131.2	23.3	189.9	25.5	246.2	19.6	288.2	5.9	0.0	0.0	0.0	0.0	0.0	0.0
			40.2	121.3	84.4	212.8	135.4	263.1	215.7	282.1	284.0	292.4	0.0	0.0	0.0	0.0	0.0	0.0

12(iii)

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN HEADWATER POND 1980 (FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
1	M																	
1	F																	
1	ALL	24.	57.6	8.7														
			45.4	74.9														
2	M																	
2	F																	
2	ALL	102.	54.7	9.8	102.7	19.4												
			34.6	104.2	52.6	155.7												
3	M																	
3	F																	
3	ALL	159.	56.6	9.3	108.8	21.1	167.2	25.7										
			35.8	89.5	60.9	174.4	111.2	229.3										
4	M																	
4	F																	
4	ALL	67.	54.6	9.3	106.0	20.6	162.5	23.2	213.1	23.7								
			34.0	80.5	67.9	160.5	119.9	230.2	166.6	269.9								
5	M																	
5	F																	
5	ALL	10.	56.8	8.3	106.0	13.3	167.6	22.2	224.8	22.3	272.5	28.6						
			35.9	65.3	86.5	129.1	134.7	200.3	188.7	255.3	231.9	306.1						
6	M																	
6	F																	
6	ALL	1.	45.3	0.0	136.3	0.0	178.3	0.0	227.0	0.0	266.4	0.0	305.1	0.0				
			45.3	45.3	136.3	136.3	178.3	178.3	227.0	227.0	266.4	266.4	305.1	305.1				
ALL	M																	
ALL	F																	
ALL	ALL	363.	55.7	9.4	106.4	20.4	166.0	24.8	214.8	23.6	271.9	27.1	305.1	0.0	0.0	0.0	0.0	0.0
			34.0	104.2	52.6	174.4	111.2	230.2	166.6	269.9	231.9	306.1	305.1	305.1	0.0	0.0	0.0	0.0

12(iv)

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN HEADWATER POND 1978 (TRAP AND FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
1	M																	
1	F																	
1	ALL	4.	76.4	15.8														
			65.9	99.7														
2	M																	
2	F																	
2	ALL	33.	90.4	18.8	160.3	23.9												
			53.2	130.3	93.0	205.7												
3	M																	
3	F																	
3	ALL	32.	78.9	13.8	141.7	19.3	209.3	19.6										
			58.0	110.8	111.3	188.5	177.3	253.8										
4	M																	
4	F																	
4	ALL	12.	88.0	12.3	142.8	13.6	196.0	17.1	247.7	20.9								
			72.4	106.1	109.9	155.9	168.8	226.5	205.1	280.0								
5	M																	
5	F	1.	70.4	0.0	163.4	0.0	187.9	0.0	219.2	0.0	263.7	0.0						
			70.4	70.4	163.4	163.4	187.9	187.9	219.2	219.2	263.7	263.7						
5	ALL	3.	79.8	8.4	147.7	17.8	182.6	8.1	229.7	9.2	277.7	18.1						
			70.4	86.2	128.4	163.4	173.3	187.9	219.2	236.2	263.7	298.1						
ALL	M																	
ALL	F	1.	70.4	0.0	163.4	0.0	187.9	0.0	219.2	0.0	263.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			70.4	70.4	163.4	163.4	187.9	187.9	219.2	219.2	263.7	263.7	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	84.	84.6	16.4	149.8	22.2	204.2	19.9	244.1	20.3	277.7	18.1	0.0	0.0	0.0	0.0	0.0	0.0
			53.2	130.3	93.0	205.7	168.8	253.8	205.1	280.0	263.7	298.1	0.0	0.0	0.0	0.0	0.0	0.0

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN HEADWATER POND 1979(FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
			EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)															
1	M																	
1	F																	
1	ALL	45.	59.9	10.9														
			37.8	87.9														
2	M	1.	76.4	0.0	158.8	0.0												
			76.4	76.4	158.8	158.8												
2	F	2.	52.1	8.7	90.6	3.5												
			45.9	58.2	88.1	93.1												
2	ALL	99.	63.8	12.9	120.4	20.0												
			34.6	100.2	81.2	162.1												
3	M	2.	61.7	8.4	133.9	0.8	184.5	10.5										
			55.8	67.6	133.3	134.4	177.1	191.9										
3	F	1.	71.3	0.0	118.8	0.0	163.9	0.0										
			71.3	71.3	118.8	118.8	163.9	163.9										
3	ALL	73.	69.5	13.6	133.9	24.1	184.8	26.3										
			39.0	111.9	85.8	206.5	133.0	260.1										
4	M	2.	58.6	10.0	109.8	1.9	195.5	18.2	270.1	11.8								
			51.5	65.6	108.5	111.1	182.6	208.4	261.8	278.5								
4	F																	
4	ALL	15.	67.6	17.9	131.1	25.0	196.0	18.5	245.7	19.5								
			37.9	106.2	99.0	175.2	159.4	232.6	213.5	278.5								
5	M																	
5	F																	
5	ALL	2.	62.5	1.1	126.9	3.9	171.9	8.6	223.1	7.8	285.8	8.1						
			61.7	63.3	124.1	129.7	165.9	178.0	217.6	228.6	280.1	291.5						
ALL	M	5.	63.4	9.9	129.2	20.5	190.0	13.7	270.1	11.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			51.5	76.4	108.5	158.8	177.1	208.4	261.8	278.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	F	3.	58.5	12.7	100.0	16.5	163.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			45.9	71.3	88.1	118.8	163.9	163.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	234.	65.1	13.5	126.6	22.8	186.4	25.2	243.0	19.8	285.8	8.1	0.0	0.0	0.0	0.0	0.0	0.0
			34.6	111.9	81.2	206.5	133.0	260.1	213.5	278.5	280.1	291.5	0.0	0.0	0.0	0.0	0.0	0.0

12(vi)

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN HEADWATER POND 1980 (FYKENETTED FISH ONLY)

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	24.	63.3	8.4														
			50.4	80.1														
2	M																	
2	F																	
2	ALL	102.	63.1	9.7	108.1	19.0												
			43.3	106.1	59.8	161.0												
3	M																	
3	F																	
3	ALL	159.	66.8	9.8	118.1	20.9	171.8	25.2										
			44.8	100.8	69.3	183.8	118.5	234.1										
4	M																	
4	F																	
4	ALL	67.	65.4	10.0	117.2	20.4	171.0	22.7	217.1	23.7								
			43.2	92.8	79.1	169.6	130.7	235.5	172.9	274.1								
5	M																	
5	F																	
5	ALL	10.	68.6	9.2	119.4	14.1	179.4	22.8	232.8	23.1	276.2	29.1						
			45.7	78.4	99.9	144.2	145.6	212.6	196.0	265.4	235.1	311.6						
6	M																	
6	F																	
6	ALL	1.	56.3	0.0	150.1	0.0	190.7	0.0	236.3	0.0	272.6	0.0	307.6	0.0				
			56.3	56.3	150.1	150.1	190.7	190.7	236.3	236.3	272.6	272.6	307.6	307.6				
ALL	M																	
ALL	F																	
ALL	ALL	363.	65.3	9.8	115.0	20.6	172.0	24.3	219.4	24.0	275.9	27.6	307.6	0.0	0.0	0.0	0.0	0.0
			43.2	106.1	59.8	183.8	118.5	235.5	172.9	274.1	235.1	311.6	307.6	307.6	0.0	0.0	0.0	0.0

APPENDIX 13: BROOK TROUT FROM SPRUCE POND BY SEASON AND YEAR OF CAPTURE AND THE COMBINED DATA

(i) June-July 1977 (angling, gill and fyke net) 215

(ii) Spring 1978 (fyke net) 220

(iii) Fall 1978 (fyke net) 225

(iv) Spring 1979 (fyke net) 230

(v) Fall 1979 (fyke net) 235

(vi) Spring 1980 (fyke net) 240

(vii) Fall 1980 (fyke net) 245

(viii) 1977–80 (fyke net only) 250

13(i)

PROGRAM SCALES TABLE ONE GROWTH OF BROOK TROUT IN SPRUCE POND 1977 (ANGLING, GILL AND FYKE NET)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
2	M	19.	168.8	20.7	146.0	236.0	68.9	31.5	47.0	180.0	20.3	3.0	15.0	27.0
2	F	21.	175.9	15.1	155.0	210.0	72.8	21.7	51.0	128.0	20.5	3.0	16.0	27.0
2	ALL	40.	172.5	18.1	146.0	236.0	70.9	26.5	47.0	180.0	20.4	2.9	15.0	27.0
3	M	17.	214.5	19.2	180.0	266.0	137.7	39.8	73.0	267.0	24.2	3.7	17.0	33.0
3	F	37.	214.7	18.0	152.0	257.0	138.7	34.7	47.0	237.0	24.9	3.5	18.0	35.0
3	ALL	54.	214.6	18.2	152.0	266.0	138.4	36.0	47.0	267.0	24.7	3.6	17.0	35.0
4	M	11.	262.0	33.2	222.0	335.0	246.5	131.5	120.0	534.0	29.7	3.3	25.0	35.0
4	F	21.	243.9	18.8	210.0	300.0	189.9	47.6	134.0	327.0	26.9	3.5	22.0	34.0
4	ALL	32.	250.1	25.7	210.0	335.0	209.3	88.3	120.0	534.0	27.8	3.7	22.0	35.0
5	M	1.	310.0	0.0	310.0	310.0	182.0	0.0	182.0	182.0	38.0	0.0	38.0	38.0
5	F													
5	ALL	1.	310.0	0.0	310.0	310.0	182.0	0.0	182.0	182.0	38.0	0.0	38.0	38.0
ALL	M	48.	209.3	45.4	146.0	335.0	136.3	96.5	47.0	534.0	24.2	5.3	15.0	38.0
ALL	F	79.	212.1	30.4	152.0	300.0	134.8	55.8	47.0	327.0	24.3	4.1	16.0	35.0
ALL	ALL	127.	211.1	36.7	146.0	335.0	135.4	73.5	47.0	534.0	24.3	4.6	15.0	38.0

TOTAL NUMBER OF FISH 127

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 3.0 S.D. 0.8

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.5948

CORRELATION COEFF. 0.7182

REGRESSION LINE:

LN LENGTH(MM) = 3.2343 + 0.663 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:
LOG WEIGHT(G) =-4.2404 + 2.723 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9529

FOR FEMALES:
LOG WEIGHT(G) =-4.8632 + 2.994 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9780

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.5235 + 2.847 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9641

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN SPRUCE POND 1977

EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM)

NO. OF ANNULI	SEX	NO. FISH	FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
2	M	19.	79.9	20.7	136.8	20.5												
			39.0	111.1	108.0	189.6												
2	F	21.	87.0	15.9	146.4	16.6												
			51.3	114.1	122.9	190.3												
2	ALL	40.	83.6	18.4	141.9	18.9												
			39.0	114.1	108.0	190.3												
3	M	17.	69.8	9.6	123.5	18.0	178.2	19.3										
			50.3	90.3	96.6	155.8	152.3	217.0										
3	F	37.	71.9	16.4	123.5	21.0	178.5	18.9										
			45.6	119.8	90.1	188.0	140.3	220.8										
3	ALL	54.	71.2	14.6	123.5	19.9	178.4	18.9										
			45.6	119.8	90.1	188.0	140.3	220.8										
4	M	11.	72.4	12.5	135.7	17.0	180.7	31.6	228.8	31.4								
			56.1	96.6	102.2	164.9	129.3	229.1	180.1	291.4								
4	F	21.	64.8	11.0	121.7	15.2	168.5	19.2	209.2	20.2								
			46.1	92.9	104.1	158.9	142.2	210.5	166.9	246.1								
4	ALL	32.	67.4	11.9	126.5	17.0	172.7	24.4	216.0	25.9								
			46.1	96.6	102.2	164.9	129.3	229.1	166.9	291.4								
5	M	1.	71.9	0.0	106.3	0.0	162.6	0.0	208.4	0.0	281.6	0.0						
			71.9	71.9	106.3	106.3	162.6	162.6	208.4	208.4	281.6	281.6						
5	F																	
5	ALL	1.	71.9	0.0	106.3	0.0	162.6	0.0	208.4	0.0	281.6	0.0						
			71.9	71.9	106.3	106.3	162.6	162.6	208.4	208.4	281.6	281.6						
ALL	M	48.	74.4	15.8	131.2	19.6	178.6	24.1	227.1	30.5	281.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			39.0	111.1	96.6	189.6	129.3	229.1	180.1	291.4	281.6	281.6	0.0	0.0	0.0	0.0	0.0	0.0
ALL	F	79.	74.0	17.0	129.1	21.1	174.9	19.5	209.2	20.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			45.6	119.8	90.1	190.3	140.3	220.8	166.9	246.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	127.	74.2	16.5	129.9	20.5	176.1	21.1	215.7	25.5	281.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			39.0	119.8	90.1	190.3	129.3	229.1	166.9	291.4	281.6	281.6	0.0	0.0	0.0	0.0	0.0	0.0

GROWTH OF BROOK TROUT IN SPRUCE POND 1977

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75										
76 - 80										
81 - 85										
86 - 90										
91 - 95										
96 - 100										
101 - 105										
106 - 110										
111 - 115										
116 - 120										
121 - 125										
126 - 130										
131 - 135										
136 - 140										
141 - 145										
146 - 150	1			1						
151 - 155	5			4	1					
156 - 160	4			4						
161 - 165	9			9						
166 - 170	5			5						
171 - 175	5			5						
176 - 180	6			4	2					
181 - 185										
186 - 190	3			2	1					
191 - 195	2			2						
196 - 200	5				5					
201 - 205	5			2	3					
206 - 210	10			1	8	1				
211 - 215	8				8					
216 - 220	10				10					
221 - 225	11				6	5				
226 - 230	4				3	1				
231 - 235	2				1	1				
236 - 240	8			1	3	4				
241 - 245	4				1	3				
246 - 250	4					4				
251 - 255	2					2				
256 - 260	4				1	3				
261 - 265	2					2				
266 - 270	3				1	2				
271 - 275										

276 - 280					
281 - 285	1			1	
286 - 290					
291 - 295	1			1	
296 - 300	1			1	
301 - 305					
306 - 310	1				1
311 - 315					
316 - 320					
321 - 325					
326 - 330					
331 - 335	1			1	
TOTAL	127	40	54	32	1

PROGRAM SCALES TABLE ONE GROWTH OF BROOK TROUT IN SPRUCE POND 1978 (SPRING FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
1	M													
1	F													
1	ALL	19.	97.0	15.2	79.0	129.0	12.4	6.1	6.0	28.0	10.3	2.4	6.0	16.0
2	M													
2	F													
2	ALL	39.	145.9	15.6	112.0	177.0	37.6	12.4	11.0	66.0	16.5	2.3	10.0	20.0
3	M													
3	F													
3	ALL	34.	202.8	23.0	162.0	243.0	92.0	29.7	45.0	155.0	23.5	3.8	19.0	33.0
4	M													
4	F	1.	234.0	0.0	234.0	234.0	146.0	0.0	146.0	146.0	30.0	0.0	30.0	30.0
4	ALL	15.	256.2	17.6	234.0	290.0	181.4	53.4	103.0	275.0	29.0	2.4	25.0	33.0
5	M													
5	F													
5	ALL	2.	297.5	4.9	294.0	301.0	310.0	53.7	272.0	348.0	31.0	5.7	27.0	35.0
ALL	M													
ALL	F	1.	234.0	0.0	234.0	234.0	146.0	0.0	146.0	146.0	30.0	0.0	30.0	30.0
ALL	ALL	109.	173.1	56.0	79.0	301.0	75.0	67.9	6.0	348.0	19.6	6.8	6.0	35.0

TOTAL NUMBER OF FISH 109

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 2.5 S.D. 1.0

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.5948

CORRELATION COEFF. 0.9225

REGRESSION LINE:

LN LENGTH(MM) = 2.7086 + 0.822 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:

INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.4856 + 2.792 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9855

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN SPRUCE POND 1978 (SPRING FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN MIN	FIRST S.D. MAX	SECOND MEAN MIN	SECOND S.D. MAX	THIRD MEAN MIN	THIRD S.D. MAX	FOURTH MEAN MIN	FOURTH S.D. MAX	FIFTH MEAN MIN	FIFTH S.D. MAX	SIXTH MEAN MIN	SIXTH S.D. MAX	SEVENTH MEAN MIN	SEVENTH S.D. MAX	EIGHTH MEAN MIN	EIGHTH S.D. MAX
1	M																	
1	F																	
1	ALL	19.	66.0	20.2														
			35.6	103.6														
2	M																	
2	F																	
2	ALL	39.	69.0	14.4	126.5	16.5												
			45.8	102.4	93.8	157.0												
3	M																	
3	F																	
3	ALL	34.	64.1	13.3	123.1	21.7	176.8	22.1										
			33.7	96.7	76.8	167.6	130.2	215.6										
4	M																	
4	F	1.	60.4	0.0	100.6	0.0	166.4	0.0	207.5	0.0								
			60.4	60.4	100.6	100.6	166.4	166.4	207.5	207.5								
4	ALL	15.	64.7	12.1	116.5	21.0	177.4	19.4	224.7	21.9								
			46.3	89.9	88.4	160.4	136.5	204.6	168.6	264.7								
5	M																	
5	F																	
5	ALL	2.	68.0	5.3	130.8	5.8	190.3	14.4	227.0	7.2	275.9	3.4						
			64.3	71.8	126.7	135.0	180.0	200.5	221.9	232.0	273.5	278.3						
ALL	M																	
ALL	F	1.	60.4	0.0	100.6	0.0	166.4	0.0	207.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			60.4	60.4	100.6	100.6	166.4	166.4	207.5	207.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	109.	66.3	14.8	123.6	19.3	177.5	20.9	225.0	20.6	275.9	3.4	0.0	0.0	0.0	0.0	0.0	0.0
			33.7	103.6	76.8	167.6	130.2	215.6	168.6	264.7	273.5	278.3	0.0	0.0	0.0	0.0	0.0	0.0

GROWTH OF BROOK TROUT IN SPRUCE POND 1978 (SPRING FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75										
76 - 80	2		2							
81 - 85	4		4							
86 - 90	3		3							
91 - 95	1		1							
96 - 100	1		1							
101 - 105	3		3							
106 - 110	2		2							
111 - 115	2			2						
116 - 120										
121 - 125	3		2	1						
126 - 130	3		1	2						
131 - 135	3			3						
136 - 140	6			6						
141 - 145	10			10						
146 - 150	5			5						
151 - 155	1			1						
156 - 160	1			1						
161 - 165	5			2	3					
166 - 170	5			2	3					
171 - 175	2			2						
176 - 180	2			2						
181 - 185	2				2					
186 - 190	1				1					
191 - 195	2				2					
196 - 200	4				4					
201 - 205	4				4					
206 - 210	1				1					
211 - 215	3				3					
216 - 220	3				3					
221 - 225	4				4					
226 - 230	1				1					
231 - 235	2					2				
236 - 240	3				1	2				
241 - 245	3				2	1				
246 - 250	2					2				
251 - 255	1					1				
256 - 260	2					2				
261 - 265	1					1				
266 - 270	1					1				
271 - 275	1					1				

276 - 280						
281 - 285						
286 - 290	2				2	
291 - 295	1					1
296 - 300						
301 - 305	1					1
TOTAL	109	19	39	34	15	2

13(iii)

PROGRAM SCALES TABLE ONE GROWTH OF BROOK TROUT IN SPRUCE POND 1978 (FALL FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
1	M													
1	F													
1	ALL	31.	104.9	14.2	75.0	127.0	15.2	5.6	4.0	24.0	12.0	2.2	9.0	19.0
2	M													
2	F													
2	ALL	56.	170.3	26.3	122.0	237.0	63.4	28.5	19.0	167.0	19.0	3.7	12.0	29.0
3	M													
3	F													
3	ALL	27.	221.3	21.0	175.0	265.0	126.9	35.5	60.0	215.0	24.1	3.3	15.0	30.0
4	M													
4	F													
4	ALL	3.	255.0	15.0	240.0	270.0	186.0	15.9	174.0	204.0	31.3	4.7	26.0	35.0
5	M													
5	F													
5	ALL	2.	291.0	15.6	280.0	302.0	248.5	38.9	221.0	276.0	31.0	4.2	28.0	34.0
ALL	M													
ALL	F													
ALL	ALL	119.	169.0	51.2	75.0	302.0	71.4	55.8	4.0	276.0	18.9	6.0	9.0	35.0

TOTAL NUMBER OF FISH 119

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 2.1 S.D. 0.9

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.5948

CORRELATION COEFF. 0.9098

REGRESSION LINE:

LN LENGTH(MM) = 2.5066 + 0.892 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:

INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.6293 + 2.867 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9865

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN SPRUCE POND 1978 (FALL FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	31.	61.7	11.2														
			41.1	86.0														
2	M																	
2	F																	
2	ALL	56.	66.2	15.3	124.7	22.8												
			34.2	95.8	78.8	201.7												
3	M																	
3	F																	
3	ALL	27.	65.4	15.1	115.4	17.2	173.6	19.6										
			34.4	102.8	84.9	154.8	119.1	205.5										
4	M																	
4	F																	
4	ALL	3.	67.9	8.7	104.8	17.0	176.1	12.4	215.3	7.6								
			60.6	77.6	85.3	116.9	164.7	189.4	207.0	222.0								
5	M																	
5	F																	
5	ALL	2.	61.1	19.3	114.3	21.0	156.2	10.6	200.5	18.9	252.8	13.5						
			47.4	74.7	99.4	129.2	148.8	163.7	187.1	213.8	243.3	262.4						
ALL	M																	
ALL	F																	
ALL	ALL	119.	64.8	14.1	121.0	21.4	172.8	18.9	209.4	13.6	252.8	13.5	0.0	0.0	0.0	0.0	0.0	0.0
			34.2	102.8	78.8	201.7	119.1	205.5	187.1	222.0	243.3	262.4	0.0	0.0	0.0	0.0	0.0	0.0

GROWTH OF BROOK TROUT IN SPRUCE POND 1978 (FALL FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75	1		1							
76 - 80	1		1							
81 - 85	2		2							
86 - 90	1		1							
91 - 95	2		2							
96 - 100	5		5							
101 - 105	5		5							
106 - 110	4		4							
111 - 115	1		1							
116 - 120	5		5							
121 - 125	2		1	1						
126 - 130	6		3	3						
131 - 135	4			4						
136 - 140	1			1						
141 - 145	6			6						
146 - 150										
151 - 155	2			2						
156 - 160	2			2						
161 - 165	3			3						
166 - 170	2			2						
171 - 175	6			5	1					
176 - 180	5			5						
181 - 185	7			6	1					
186 - 190	6			5	1					
191 - 195	2			2						
196 - 200	3			1	2					
201 - 205	3			2	1					
206 - 210	5			5						
211 - 215	3				3					
216 - 220	4				4					
221 - 225	3				3					
226 - 230	2				2					
231 - 235	3				3					
236 - 240	3			1	1	1				
241 - 245	3				3					
246 - 250										
251 - 255	2				1	1				
256 - 260										
261 - 265	1				1					
266 - 270	1					1				
271 - 275										

276 - 280	1					1
281 - 285						
286 - 290						
291 - 295						
296 - 300						
301 - 305	1					1
TOTAL	119	31	56	27	3	2

13(iv)

PROGRAM SCALES TABLE ONE GROWTH OF BROOK TROUT IN SPRUCE POND 1979 (SPRING FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
0	M													
0	F													
0	ALL	1.	61.0	0.0	61.0	61.0	4.0	0.0	4.0	4.0	5.0	0.0	5.0	5.0
1	M													
1	F													
1	ALL	26.	88.3	9.8	72.0	106.0	8.9	3.5	4.0	17.0	8.9	1.9	6.0	13.0
2	M													
2	F													
2	ALL	64.	141.0	23.8	97.0	195.0	35.8	18.0	10.0	85.0	15.7	3.3	11.0	25.0
3	M													
3	F													
3	ALL	36.	211.2	26.8	164.0	300.0	113.3	53.2	57.0	335.0	23.3	3.6	16.0	34.0
4	M													
4	F													
4	ALL	3.	240.0	52.0	181.0	279.0	152.7	68.3	76.0	207.0	25.0	3.5	21.0	27.0
ALL	M													
ALL	F													
ALL	ALL	130.	151.6	51.3	61.0	300.0	54.3	53.0	4.0	335.0	16.6	6.1	5.0	34.0

TOTAL NUMBER OF FISH 130

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 2.1 S.D. 0.8

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.5948

CORRELATION COEFF. 0.9281

REGRESSION LINE:

LN LENGTH(MM) = 2.7507 + 0.809 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:

INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.6794 + 2.884 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9935

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN SPRUCE POND 1979 (SPRING FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	26.	66.1	8.3														
			51.8	80.5														
2	M																	
2	F																	
2	ALL	64.	71.7	15.6	120.7	19.8												
			32.9	105.1	86.4	170.4												
3	M																	
3	F																	
3	ALL	36.	72.3	14.4	136.1	20.4	187.7	22.0										
			45.4	101.8	102.7	182.7	146.7	236.8										
4	M																	
4	F																	
4	ALL	3.	66.7	12.4	111.7	20.8	167.2	40.8	213.8	43.2								
			53.0	77.2	87.7	125.3	120.1	192.0	166.2	250.3								
ALL	M																	
ALL	F																	
ALL	ALL	129.	70.7	14.1	125.8	21.3	186.1	23.8	213.8	43.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			32.9	105.1	86.4	182.7	120.1	236.8	166.2	250.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

GROWTH OF BROOK TROUT IN SPRUCE POND 1979 (SPRING FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65	1	1								
66 - 70										
71 - 75	2		2							
76 - 80	5		5							
81 - 85	2		2							
86 - 90	7		7							
91 - 95	5		5							
96 - 100	1			1						
101 - 105	4		3	1						
106 - 110	5		2	3						
111 - 115	6			6						
116 - 120	4			4						
121 - 125	5			5						
126 - 130	5			5						
131 - 135	3			3						
136 - 140	8			8						
141 - 145	6			6						
146 - 150										
151 - 155	3			3						
156 - 160	2			2						
161 - 165	4			3	1					
166 - 170	5			5						
171 - 175	4			4						
176 - 180	4			2	2					
181 - 185	5			1	3	1				
186 - 190	3			1	2					
191 - 195	2			1	1					
196 - 200	5				5					
201 - 205	4				4					
206 - 210	2				2					
211 - 215	2				2					
216 - 220	3				3					
221 - 225										
226 - 230	2				2					
231 - 235	2				2					
236 - 240	1				1					
241 - 245	4				4					
246 - 250	1				1					
251 - 255										
256 - 260	1					1				
261 - 265										
266 - 270										
271 - 275										

276 - 280	1					1
281 - 285						
286 - 290						
291 - 295						
296 - 300	1				1	
TOTAL	130	1	26	64	36	3

13(v)

PROGRAM SCALES TABLE ONE GROWTH OF BROOK TROUT IN SPRUCE POND 1979 (FALL FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
1	M													
1	F													
1	ALL	27.	100.9	11.7	78.0	124.0	12.9	3.9	7.0	22.0	12.1	1.5	9.0	15.0
2	M													
2	F													
2	ALL	22.	157.5	28.1	111.0	227.0	46.5	28.0	9.0	132.0	19.4	3.3	12.0	27.0
3	M													
3	F													
3	ALL	32.	209.4	25.2	151.0	279.0	108.5	47.2	40.0	265.0	23.6	3.4	18.0	34.0
4	M													
4	F													
4	ALL	1.	267.0	0.0	267.0	267.0	201.0	0.0	201.0	201.0	28.0	0.0	28.0	28.0
ALL	M													
ALL	F													
ALL	ALL	82.	160.4	52.6	78.0	279.0	61.5	55.0	7.0	265.0	18.7	5.8	9.0	34.0

TOTAL NUMBER OF FISH 82

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 2.1 S.D. 0.9

NOTE!
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.5948

CORRELATION COEFF. 0.9453

REGRESSION LINE:

LN LENGTH(MM) = 2.1410 + 1.000 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.6609 + 2.870 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9858

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN SPRUCE POND 1979 (FALL FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
1	M																	
1	F																	
1	ALL	27.	63.9	10.8														
			40.9	85.1														
2	M																	
2	F																	
2	ALL	22.	70.9	13.4	121.1	22.5												
			47.8	100.0	82.0	174.5												
3	M																	
3	F																	
3	ALL	32.	71.8	11.7	127.8	21.5	174.7	22.1										
			43.4	98.0	86.3	180.8	129.0	219.2										
4	M																	
4	F																	
4	ALL	1.	66.9	0.0	124.8	0.0	170.6	0.0	232.5	0.0								
			66.9	66.9	124.8	124.8	170.6	170.6	232.5	232.5								
ALL	M																	
ALL	F																	
ALL	ALL	82.	68.9	12.2	125.1	21.8	174.6	21.8	232.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			40.9	100.0	82.0	180.8	129.0	219.2	232.5	232.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

GROWTH OF BROOK TROUT IN SPRUCE POND 1979 (FALL FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75										
76 - 80	1		1							
81 - 85	2		2							
86 - 90	3		3							
91 - 95	4		4							
96 - 100	5		5							
101 - 105										
106 - 110	4		4							
111 - 115	7		6	1						
116 - 120	2		1	1						
121 - 125	2		1	1						
126 - 130										
131 - 135	2			2						
136 - 140										
141 - 145	4			4						
146 - 150										
151 - 155	3			2	1					
156 - 160	1			1						
161 - 165										
166 - 170	2			2						
171 - 175	4			4						
176 - 180	1				1					
181 - 185	2			1	1					
186 - 190	3			1	2					
191 - 195	4				4					
196 - 200	5			1	4					
201 - 205	4				4					
206 - 210	1				1					
211 - 215	4				4					
216 - 220	2				2					
221 - 225	1				1					
226 - 230	2			1	1					
231 - 235	1				1					
236 - 240	2				2					
241 - 245	1				1					
246 - 250										
251 - 255										
256 - 260	1				1					
261 - 265										
266 - 270	1					1				
271 - 275										

276 - 280	1			1	
TOTAL	82	27	22	32	1

PROGRAM SCALES TABLE ONE GROWTH OF BROOK TROUT IN SPRUCE POND 1980 (SPRING FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
1	M													
1	F													
1	ALL	2.	90.5	13.4	81.0	100.0	8.0	2.8	6.0	10.0	9.0	1.4	8.0	10.0
2	M													
2	F													
2	ALL	25.	150.0	22.9	108.0	198.0	41.6	19.2	14.0	87.0	15.5	2.9	11.0	20.0
3	M													
3	F													
3	ALL	39.	189.7	24.5	143.0	244.0	86.3	32.6	31.0	188.0	19.6	3.2	14.0	25.0
4	M													
4	F													
4	ALL	14.	246.5	22.2	213.0	288.0	182.6	49.7	108.0	274.0	26.4	3.6	20.0	33.0
5	M													
5	F													
5	ALL	6.	317.2	16.4	296.0	340.0	425.5	99.4	300.0	551.0	35.5	5.0	30.0	43.0
ALL	M													
ALL	F													
ALL	ALL	86.	194.0	53.5	81.0	340.0	110.8	106.4	6.0	551.0	20.4	6.5	8.0	43.0

TOTAL NUMBER OF FISH 86

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 3.0 S.D. 0.9

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.5948

CORRELATION COEFF. 0.8387

REGRESSION LINE:

LN LENGTH(MM) = 3.0396 + 0.739 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:

INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-5.1309 + 3.091 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9933

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN SPRUCE POND 1980 (SPRING FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	2.	62.4	1.5														
			61.3	63.5														
2	M																	
2	F																	
2	ALL	25.	61.9	14.4	122.4	20.1												
			30.1	89.7	83.6	169.2												
3	M																	
3	F																	
3	ALL	39.	56.9	8.4	109.5	19.5	163.9	22.5										
			44.3	79.2	73.9	153.7	118.6	225.0										
4	M																	
4	F																	
4	ALL	14.	55.6	10.6	118.0	17.9	179.0	26.2	225.6	25.6								
			37.7	68.8	88.1	144.0	128.1	232.8	182.4	274.2								
5	M																	
5	F																	
5	ALL	6.	51.7	11.1	100.9	17.6	174.9	12.0	231.8	14.3	296.5	14.2						
			37.0	70.4	81.0	127.1	159.4	188.4	211.8	249.7	268.9	308.0						
ALL	M																	
ALL	F																	
ALL	ALL	86.	57.9	11.1	114.2	20.2	168.6	23.3	227.5	22.6	296.5	14.2	0.0	0.0	0.0	0.0	0.0	0.0
			30.1	89.7	73.9	169.2	118.6	232.8	182.4	274.2	268.9	308.0	0.0	0.0	0.0	0.0	0.0	0.0

GROWTH OF BROOK TROUT IN SPRUCE POND 1980 (SPRING FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75										
76 - 80										
81 - 85	1		1							
86 - 90										
91 - 95										
96 - 100	1		1							
101 - 105										
106 - 110	1			1						
111 - 115										
116 - 120	1			1						
121 - 125	2			2						
126 - 130	1			1						
131 - 135	2			2						
136 - 140	4			4						
141 - 145	2				2					
146 - 150	1			1						
151 - 155	4			3	1					
156 - 160	4			3	1					
161 - 165	5			2	3					
166 - 170	3			1	2					
171 - 175	4				4					
176 - 180	2			1	1					
181 - 185	3				3					
186 - 190	4			1	3					
191 - 195	3			1	2					
196 - 200	5			1	4					
201 - 205	3				3					
206 - 210	2				2					
211 - 215	3				2	1				
216 - 220	2				1	1				
221 - 225	4				3	1				
226 - 230	1				1					
231 - 235	2					2				
236 - 240										
241 - 245	3				1	2				
246 - 250	2					2				
251 - 255	2					2				
256 - 260	1					1				
261 - 265										
266 - 270										
271 - 275										

276 - 280						
281 - 285						
286 - 290	2				2	
291 - 295						
296 - 300	1					1
301 - 305						
306 - 310	2					2
311 - 315						
316 - 320	1					1
321 - 325						
326 - 330						
331 - 335	1					1
336 - 340	1					1
TOTAL	86	2	25	39	14	6

13(vii)

PROGRAM SCALES TABLE ONE GROWTH OF BROOK TROUT IN SPRUCE POND 1980 (FALL FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
1	M													
1	F													
1	ALL	8.	109.4	15.4	85.0	125.0	15.3	6.4	8.0	27.0	11.5	2.8	7.0	15.0
2	M													
2	F													
2	ALL	42.	173.0	23.0	137.0	243.0	58.1	27.0	26.0	158.0	18.3	2.9	12.0	27.0
3	M													
3	F													
3	ALL	39.	216.8	25.7	160.0	288.0	122.4	47.2	42.0	277.0	21.8	2.9	16.0	28.0
4	M													
4	F													
4	ALL	6.	273.2	16.8	262.0	307.0	244.8	61.6	189.0	358.0	27.7	4.9	22.0	35.0
5	M													
5	F													
5	ALL	1.	329.0	0.0	329.0	329.0	505.0	0.0	505.0	505.0	27.0	0.0	27.0	27.0
ALL	M													
ALL	F													
ALL	ALL	96.	193.4	46.1	85.0	329.0	97.0	77.7	8.0	505.0	19.9	4.7	7.0	35.0

TOTAL NUMBER OF FISH 96

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 2.5 S.D. 0.8

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.5948

CORRELATION COEFF. 0.8371

REGRESSION LINE:

LN LENGTH(MM) = 2.8099 + 0.820 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:

INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-5.2718 + 3.138 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9928

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN SPRUCE POND 1980 (FALL FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	8.	58.4	4.1														
			51.8	62.7														
2	M																	
2	F																	
2	ALL	42.	55.2	9.6	113.8	20.0												
			37.4	78.1	81.6	176.0												
3	M																	
3	F																	
3	ALL	39.	59.7	11.1	116.1	17.9	171.3	23.9										
			37.4	83.7	87.3	156.6	127.3	227.5										
4	M																	
4	F																	
4	ALL	6.	58.2	9.8	120.8	22.9	175.4	20.6	223.9	14.1								
			43.0	68.6	77.1	138.7	138.2	189.7	201.1	242.5								
5	M																	
5	F																	
5	ALL	1.	63.9	0.0	149.7	0.0	209.9	0.0	245.8	0.0	293.4	0.0						
			63.9	63.9	149.7	149.7	209.9	209.9	245.8	245.8	293.4	293.4						
ALL	M																	
ALL	F																	
ALL	ALL	96.	57.6	10.0	115.7	19.4	172.7	23.7	227.0	15.3	293.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			37.4	83.7	77.1	176.0	127.3	227.5	201.1	245.8	293.4	293.4	0.0	0.0	0.0	0.0	0.0	0.0

GROWTH OF BROOK TROUT IN SPRUCE POND 1980 (FALL FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75										
76 - 80										
81 - 85	1		1							
86 - 90										
91 - 95	1		1							
96 - 100	1		1							
101 - 105										
106 - 110										
111 - 115	1		1							
116 - 120	2		2							
121 - 125	2		2							
126 - 130										
131 - 135										
136 - 140	3			3						
141 - 145	1			1						
146 - 150	3			3						
151 - 155	4			4						
156 - 160	3			2	1					
161 - 165	3			3						
166 - 170	3			3						
171 - 175	4			4						
176 - 180	6			5	1					
181 - 185	3			3						
186 - 190	7			3	4					
191 - 195	3			2	1					
196 - 200	7			2	5					
201 - 205	3				3					
206 - 210	5			2	3					
211 - 215	2				2					
216 - 220	3			1	2					
221 - 225	4				4					
226 - 230	1				1					
231 - 235	4				4					
236 - 240										
241 - 245	4			1	3					
246 - 250	1				1					
251 - 255	2				2					
256 - 260										
261 - 265	3				1	2				
266 - 270	3					3				
271 - 275										

276 - 280						
281 - 285						
286 - 290	1			1		
291 - 295						
296 - 300						
301 - 305						
306 - 310	1				1	
311 - 315						
316 - 320						
321 - 325						
326 - 330	1					1
TOTAL	96	8	42	39	6	1

PROGRAM SCALES TABLE ONE GROWTH OF BROOK TROUT IN SPRUCE POND 1977-80 (FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
0	M													
0	F													
0	ALL	1.	61.0	0.0	61.0	61.0	4.0	0.0	4.0	4.0	5.0	0.0	5.0	5.0
1	M													
1	F													
1	ALL	113.	98.8	14.4	72.0	129.0	12.6	5.4	4.0	28.0	10.9	2.4	6.0	19.0
2	M													
2	F													
2	ALL	248.	156.2	26.7	97.0	243.0	47.6	25.3	9.0	167.0	17.3	3.5	10.0	29.0
3	M													
3	F													
3	ALL	207.	207.9	26.4	143.0	300.0	107.4	44.1	31.0	335.0	22.5	3.7	14.0	34.0
4	M													
4	F	2.	235.0	1.4	234.0	236.0	141.0	7.1	136.0	146.0	28.0	2.8	26.0	30.0
4	ALL	43.	254.0	23.0	181.0	307.0	188.3	55.2	76.0	358.0	27.7	3.6	20.0	35.0
5	M													
5	F													
5	ALL	11.	309.9	18.2	280.0	340.0	379.5	112.4	221.0	551.0	33.1	5.1	27.0	43.0
ALL	M													
ALL	F	2.	235.0	1.4	234.0	236.0	141.0	7.1	136.0	146.0	28.0	2.8	26.0	30.0
ALL	ALL	623.	172.3	54.0	61.0	340.0	76.7	72.1	4.0	551.0	18.9	6.1	5.0	43.0

TOTAL NUMBER OF FISH 623

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 2.3 S.D. 0.9

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.5948

CORRELATION COEFF. 0.9034

REGRESSION LINE:

LN LENGTH(MM) = 2.6278 + 0.857 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
LOG WEIGHT(G) =21.9160 + -8.337 (LOG LENGTH(MM)) CORRELATION COEFF. -1.0000

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.7283 + 2.906 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9893

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN SPRUCE POND 1977-80 (FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
1	M																	
1	F																	
1	ALL	113.	63.8	12.2														
			35.6	103.6														
2	M																	
2	F																	
2	ALL	248.	66.2	15.2	121.5	20.6												
			30.1	105.1	78.8	201.7												
3	M																	
3	F																	
3	ALL	207.	64.7	13.5	121.2	21.5	174.5	23.1										
			33.7	102.8	73.9	182.7	118.6	236.8										
4	M																	
4	F	2.	67.4	9.8	110.0	13.3	164.4	2.9	201.5	8.4								
			60.4	74.3	100.6	119.5	162.3	166.4	195.5	207.5								
4	ALL	43.	61.5	11.5	116.7	19.0	176.3	22.1	223.0	22.6								
			37.7	89.9	77.1	160.4	120.1	232.8	166.2	274.2								
5	M																	
5	F																	
5	ALL	11.	57.5	12.3	113.2	22.1	177.5	18.4	226.5	18.2	284.6	20.7						
			37.0	74.7	81.0	149.7	148.8	209.9	187.1	249.7	243.3	308.0						
ALL	M																	
ALL	F	2.	67.4	9.8	110.0	13.3	164.4	2.9	201.5	8.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			60.4	74.3	100.6	119.5	162.3	166.4	195.5	207.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	622.	64.8	13.9	120.8	20.9	174.9	22.7	223.7	21.7	284.6	20.7	0.0	0.0	0.0	0.0	0.0	0.0
			30.1	105.1	73.9	201.7	118.6	236.8	166.2	274.2	243.3	308.0	0.0	0.0	0.0	0.0	0.0	0.0

GROWTH OF BROOK TROUT IN SPRUCE POND 1977-80 (FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65	1	1								
66 - 70										
71 - 75	3		3							
76 - 80	9		9							
81 - 85	12		12							
86 - 90	14		14							
91 - 95	13		13							
96 - 100	14		13	1						
101 - 105	12		11	1						
106 - 110	16		12	4						
111 - 115	17		8	9						
116 - 120	14		8	6						
121 - 125	16		6	10						
126 - 130	15		4	11						
131 - 135	14			14						
136 - 140	22			22						
141 - 145	29			27	2					
146 - 150	9			9						
151 - 155	17			15	2					
156 - 160	13			11	2					
161 - 165	20			13	7					
166 - 170	20			15	5					
171 - 175	24			19	5					
176 - 180	20			15	5					
181 - 185	22			11	10	1				
186 - 190	24			11	13					
191 - 195	16			6	10					
196 - 200	29			5	24					
201 - 205	21			2	19					
206 - 210	16			7	9					
211 - 215	17				16	1				
216 - 220	17			1	15	1				
221 - 225	16				15	1				
226 - 230	9			1	8					
231 - 235	14				10	4				
236 - 240	10			1	5	4				
241 - 245	18			1	14	3				
246 - 250	6				2	4				
251 - 255	7				3	4				
256 - 260	5				1	4				
261 - 265	5				2	3				
266 - 270	6					6				
271 - 275	1					1				

276 - 280	3				1	1	1
281 - 285							
286 - 290	5				1	4	
291 - 295	1						1
296 - 300	2				1		1
301 - 305	2						2
306 - 310	3					1	2
311 - 315							
316 - 320	1						1
321 - 325							
326 - 330	1						1
331 - 335	1						1
336 - 340	1						1
TOTAL	623	1	113	248	207	43	11

APPENDIX 14: BROOK TROUT FROM HEADWATER POND BY SEASON AND YEAR OF CAPTURE AND THE COMBINED DATA

(i) August-September 1978 (trap and fyke net) 256
(See Appendix 12 (i) also.)

(ii) Spring 1979 (fyke net) 260

(iii) Fall 1979 (fyke net) 265

(iv) Spring 1980 (fyke net) 270

(v) Fall 1980 (fyke net) 275

(vi) 1978-80 (trap and fyke net) 280

PROGRAM SCALES TABLE ONE GROWTH OF BROOK TROUT IN HEADWATER POND 1978 (TRAP AND FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
1	M													
1	F													
1	ALL	4.	126.7	19.8	109.0	155.0	21.0	13.0	12.0	40.0	14.8	3.7	10.0	19.0
2	M													
2	F													
2	ALL	33.	202.5	23.2	150.0	255.0	96.1	32.4	39.0	192.0	21.8	4.1	15.0	31.0
3	M													
3	F													
3	ALL	32.	249.7	22.9	200.0	299.0	180.6	49.6	90.0	260.0	26.2	3.9	18.0	34.0
4	M													
4	F													
4	ALL	12.	296.4	26.7	251.0	333.0	300.9	90.3	180.0	450.0	32.4	3.4	26.0	37.0
5	M													
5	F	1.	340.0	0.0	340.0	340.0	568.0	0.0	568.0	568.0	39.0	0.0	39.0	39.0
5	ALL	3.	325.3	21.2	301.0	340.0	452.0	117.0	334.0	568.0	37.7	1.5	36.0	39.0
ALL	M													
ALL	F	1.	340.0	0.0	340.0	340.0	568.0	0.0	568.0	568.0	39.0	0.0	39.0	39.0
ALL	ALL	84.	234.7	49.3	109.0	340.0	166.7	106.6	12.0	568.0	25.2	6.1	10.0	39.0

TOTAL NUMBER OF FISH 84

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 2.7 S.D. 0.9

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.5948

CORRELATION COEFF. 0.8600

REGRESSION LINE:

LN LENGTH(MM) = 3.0191 + 0.755 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:

INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-5.2701 + 3.135 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9886

GROWTH OF BROOK TROUT IN HEADWATER POND 1978 (TRAP AND FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75										
76 - 80										
81 - 85										
86 - 90										
91 - 95										
96 - 100										
101 - 105										
106 - 110	1		1							
111 - 115										
116 - 120	1		1							
121 - 125	1		1							
126 - 130										
131 - 135										
136 - 140										
141 - 145										
146 - 150	1			1						
151 - 155	1		1							
156 - 160										
161 - 165										
166 - 170	1			1						
171 - 175										
176 - 180	5			5						
181 - 185	3			3						
186 - 190	2			2						
191 - 195	2			2						
196 - 200	2			1	1					
201 - 205	3			2	1					
206 - 210	3			3						
211 - 215	3			3						
216 - 220	5			3	2					
221 - 225	3			3						
226 - 230	2			1	1					
231 - 235	3				3					
236 - 240	3			1	2					
241 - 245	6			1	5					
246 - 250	3				3					
251 - 255	5			1	3	1				
256 - 260										
261 - 265	2				1	1				
266 - 270	3				3					
271 - 275	4				3	1				

276 - 280	3			2	1	
281 - 285	1			1		
286 - 290	1				1	
291 - 295	1				1	
296 - 300	1			1		
301 - 305	2				1	1
306 - 310	2				2	
311 - 315						
316 - 320						
321 - 325	1				1	
326 - 330	1				1	
331 - 335	2				1	1
336 - 340	1					1
TOTAL	84	4	33	32	12	3

PROGRAM SCALES TABLE ONE GROWTH OF BROOK TROUT IN HEADWATER POND 1979 (SPRING FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
1	M													
1	F													
1	ALL	18.	89.3	11.8	74.0	109.0	8.8	4.3	4.0	19.0	10.4	1.6	8.0	14.0
2	M	1.	195.0	0.0	195.0	195.0	75.0	0.0	75.0	75.0	21.0	0.0	21.0	21.0
2	F	2.	110.0	7.1	105.0	115.0	16.5	2.1	15.0	18.0	17.0	1.4	16.0	18.0
2	ALL	52.	147.2	26.2	105.0	200.0	38.0	21.4	14.0	94.0	17.0	3.1	10.0	25.0
3	M	2.	211.5	19.1	198.0	225.0	93.0	15.6	82.0	104.0	26.0	0.0	26.0	26.0
3	F	1.	189.0	0.0	189.0	189.0	77.0	0.0	77.0	77.0	27.0	0.0	27.0	27.0
3	ALL	35.	213.7	33.6	165.0	289.0	118.9	61.5	44.0	263.0	25.1	4.6	18.0	36.0
4	M	2.	308.0	28.3	288.0	328.0	327.0	5.7	323.0	331.0	44.0	5.7	40.0	48.0
4	F													
4	ALL	12.	275.8	25.9	240.0	328.0	237.9	60.6	168.0	331.0	32.5	6.2	26.0	48.0
5	M													
5	F													
5	ALL	2.	318.0	22.6	302.0	334.0	412.0	138.6	314.0	510.0	35.0	8.5	29.0	41.0
ALL	M	5.	246.8	58.8	195.0	328.0	183.0	131.9	75.0	331.0	32.2	11.3	21.0	48.0
ALL	F	3.	136.3	45.9	105.0	189.0	36.7	35.0	15.0	77.0	20.3	5.9	16.0	27.0
ALL	ALL	119.	173.9	63.2	74.0	334.0	83.8	90.5	4.0	510.0	20.2	7.7	8.0	48.0

TOTAL NUMBER OF FISH 119

NO. OF IMMATURE FISH 3

NO. OF MATURE FISH 5

AVE AGE (NO. ANNULI) 2.4 S.D. 0.9

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.5948

CORRELATION COEFF. 0.9222

REGRESSION LINE:

LN LENGTH(MM) = 2.4424 + 0.902 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:

LOG WEIGHT(G) =-5.2420 + 3.109 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9737

FOR FEMALES:
LOG WEIGHT(G) =-4.5604 + 2.831 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9991

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.9897 + 3.015 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9928

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN HEADWATER POND 1979 (SPRING FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
1	M																	
1	F																	
1	ALL	18.	67.7	9.6														
			55.8	89.9														
2	M	1.	83.4	0.0	161.9	0.0												
			83.4	83.4	161.9	161.9												
2	F	2.	56.8	8.6	92.7	3.8												
			50.7	62.9	90.0	95.4												
2	ALL	52.	71.2	12.7	125.0	20.5												
			49.5	96.6	90.0	164.6												
3	M	2.	69.0	8.2	139.5	0.3	186.8	11.2										
			63.2	74.7	139.4	139.7	178.9	194.7										
3	F	1.	78.2	0.0	124.2	0.0	166.2	0.0										
			78.2	78.2	124.2	124.2	166.2	166.2										
3	ALL	35.	76.9	14.4	142.1	21.5	189.7	25.7										
			45.3	105.3	112.8	187.1	148.2	243.9										
4	M	2.	67.0	10.7	119.4	1.2	202.7	16.1	273.0	12.9								
			59.4	74.6	118.5	120.3	191.3	214.1	263.8	282.1								
4	F																	
4	ALL	12.	75.6	16.8	135.3	18.8	199.1	14.8	246.3	20.2								
			55.5	114.8	111.2	169.5	165.3	219.2	215.7	282.1								
5	M																	
5	F																	
5	ALL	2.	71.3	1.4	136.6	4.5	180.6	9.1	229.5	6.2	288.2	5.9						
			70.3	72.3	133.5	139.8	174.2	187.1	225.1	233.9	284.0	292.4						
ALL	M	5.	71.1	9.7	136.0	17.7	194.8	14.6	273.0	12.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			59.4	83.4	118.5	161.9	178.9	214.1	263.8	282.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	F	3.	63.9	13.8	103.2	18.4	166.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			50.7	78.2	90.0	124.2	166.2	166.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	119.	72.8	13.4	132.4	21.8	191.6	23.3	243.9	19.7	288.2	5.9	0.0	0.0	0.0	0.0	0.0	0.0
			45.3	114.8	90.0	187.1	148.2	243.9	215.7	282.1	284.0	292.4	0.0	0.0	0.0	0.0	0.0	0.0

GROWTH OF BROOK TROUT IN HEADWATER POND 1979 (SPRING FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75	1		1							
76 - 80	5		5							
81 - 85	1		1							
86 - 90	3		3							
91 - 95	2		2							
96 - 100	1		1							
101 - 105	4		3	1						
106 - 110	2		2							
111 - 115	4			4						
116 - 120	5			5						
121 - 125	6			6						
126 - 130	2			2						
131 - 135										
136 - 140	5			5						
141 - 145	4			4						
146 - 150	2			2						
151 - 155	4			4						
156 - 160	3			3						
161 - 165	4			3	1					
166 - 170	4			1	3					
171 - 175	4			1	3					
176 - 180	3			3						
181 - 185	4			3	1					
186 - 190	4			3	1					
191 - 195	5			1	4					
196 - 200	4			1	3					
201 - 205	1				1					
206 - 210	1				1					
211 - 215										
216 - 220	2				2					
221 - 225	3				3					
226 - 230										
231 - 235	1				1					
236 - 240	3				2	1				
241 - 245	2				2					
246 - 250	1					1				
251 - 255	5				4	1				
256 - 260										
261 - 265	4				1	3				
266 - 270										
271 - 275	1				1					

276 - 280	2				2	
281 - 285						
286 - 290	3			1	2	
291 - 295						
296 - 300						
301 - 305	1					1
306 - 310						
311 - 315	1				1	
316 - 320						
321 - 325						
326 - 330	1				1	
331 - 335	1					1
TOTAL	119	18	52	35	12	2

14(iii)

PROGRAM SCALES TABLE ONE GROWTH OF BROOK TROUT IN HEADWATER POND 1979 (FALL FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
0	M													
0	F													
0	ALL	3.	60.7	6.4	56.0	68.0	7.0	7.9	1.0	16.0	8.7	0.6	8.0	9.0
1	M													
1	F													
1	ALL	27.	96.4	18.7	65.0	131.0	13.2	6.3	4.0	26.0	13.8	3.2	10.0	22.0
2	M													
2	F													
2	ALL	47.	162.4	22.4	114.0	204.0	52.8	18.7	16.0	97.0	20.5	3.6	13.0	29.0
3	M													
3	F													
3	ALL	38.	224.3	32.4	159.0	298.0	142.4	59.1	47.0	313.0	28.6	4.8	21.0	40.0
4	M													
4	F													
4	ALL	3.	303.7	28.0	273.0	328.0	351.3	92.3	255.0	439.0	38.7	9.9	32.0	50.0
ALL	M													
ALL	F													
ALL	ALL	118.	168.3	60.1	56.0	328.0	79.0	77.6	1.0	439.0	21.8	7.7	8.0	50.0

TOTAL NUMBER OF FISH 118

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 2.1 S.D. 0.9

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.5948

CORRELATION COEFF. 0.9155

REGRESSION LINE:

LN LENGTH(MM) = 2.0815 + 0.986 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:

INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.4122 + 2.775 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9766

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN HEADWATER POND 1979 (FALL FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
1	M																	
1	F																	
1	ALL	27.	60.1	10.4														
			42.2	81.6														
2	M																	
2	F																	
2	ALL	47.	68.0	13.4	121.7	19.3												
			40.2	106.3	84.4	159.9												
3	M																	
3	F																	
3	ALL	38.	77.2	14.0	138.0	26.6	185.7	27.5										
			48.6	121.3	91.3	212.8	135.4	263.1										
4	M																	
4	F																	
4	ALL	3.	77.2	28.6	156.6	42.3	213.5	29.1	257.0	18.7								
			44.7	98.5	107.8	184.2	181.4	238.1	235.5	269.5								
ALL	M																	
ALL	F																	
ALL	ALL	115.	69.4	14.8	129.9	25.1	187.8	28.2	257.0	18.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			40.2	121.3	84.4	212.8	135.4	263.1	235.5	269.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

GROWTH OF BROOK TROUT IN HEADWATER POND 1979 (FALL FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60	2	2								
61 - 65	1		1							
66 - 70	3	1	2							
71 - 75	2		2							
76 - 80	1		1							
81 - 85	2		2							
86 - 90	4		4							
91 - 95	3		3							
96 - 100	1		1							
101 - 105	1		1							
106 - 110	1		1							
111 - 115	7		5	2						
116 - 120	2		2							
121 - 125	2			2						
126 - 130	1		1							
131 - 135	4		1	3						
136 - 140	2			2						
141 - 145	3			3						
146 - 150	2			2						
151 - 155	3			3						
156 - 160	2			1	1					
161 - 165	9			7	2					
166 - 170	4			3	1					
171 - 175	4			4						
176 - 180	7			7						
181 - 185	1			1						
186 - 190	2			2						
191 - 195	5			4	1					
196 - 200	2				2					
201 - 205	6			1	5					
206 - 210	1				1					
211 - 215	4				4					
216 - 220										
221 - 225	2				2					
226 - 230	2				2					
231 - 235	4				4					
236 - 240	1				1					
241 - 245	1				1					
246 - 250	1				1					
251 - 255	3				3					
256 - 260	3				3					
261 - 265	1				1					
266 - 270	2				2					
271 - 275	1					1				

276 - 280						
281 - 285						
286 - 290						
291 - 295						
296 - 300	1				1	
301 - 305						
306 - 310	1					1
311 - 315						
316 - 320						
321 - 325						
326 - 330	1					1
TOTAL	118	3	27	47	38	3

14(iv)

PROGRAM SCALES TABLE ONE GROWTH OF BROOK TROUT IN HEADWATER POND 1980 (SPRING FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
1	M													
1	F													
1	ALL	3.	104.7	4.9	99.0	108.0	15.0	1.0	14.0	16.0	8.0	1.7	6.0	9.0
2	M													
2	F													
2	ALL	32.	128.1	19.4	102.0	176.0	26.3	11.8	12.0	56.0	13.3	2.4	8.0	20.0
3	M													
3	F													
3	ALL	63.	198.2	24.5	147.0	254.0	93.0	34.4	36.0	175.0	19.7	3.2	12.0	28.0
4	M													
4	F													
4	ALL	33.	236.0	29.4	191.0	310.0	157.0	66.0	81.0	378.0	23.7	2.9	18.0	29.0
5	M													
5	F													
5	ALL	5.	290.8	35.2	260.0	338.0	286.6	115.2	181.0	445.0	29.8	3.3	26.0	34.0
6	M													
6	F													
6	ALL	1.	328.0	0.0	328.0	328.0	497.0	0.0	497.0	497.0	38.0	0.0	38.0	38.0
ALL	M													
ALL	F													
ALL	ALL	137.	193.2	52.0	99.0	338.0	101.1	81.7	12.0	497.0	19.4	5.6	6.0	38.0

TOTAL NUMBER OF FISH 137

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 3.1 S.D. 0.9

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.5948

CORRELATION COEFF. 0.8528

REGRESSION LINE:

LN LENGTH(MM) = 2.9327 + 0.785 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.8043 + 2.941 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9933

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN HEADWATER POND 1980 (SPRING FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
1	M																	
1	F																	
1	ALL	3.	69.6	3.0														
			67.3	72.9														
2	M																	
2	F																	
2	ALL	32.	57.6	11.1	107.3	20.5												
			41.6	104.2	52.6	154.5												
3	M																	
3	F																	
3	ALL	63.	58.8	10.0	115.1	19.2	174.3	22.5										
			40.5	89.5	60.9	159.8	124.7	218.8										
4	M																	
4	F																	
4	ALL	33.	55.5	9.0	113.1	22.0	169.0	25.3	213.8	27.4								
			38.6	80.5	72.7	160.5	124.4	230.2	166.6	269.9								
5	M																	
5	F																	
5	ALL	5.	53.5	10.4	98.2	8.2	156.5	19.9	213.8	19.0	263.4	31.3						
			35.9	61.7	86.5	107.8	134.7	177.5	188.7	230.0	231.9	305.8						
6	M																	
6	F																	
6	ALL	1.	45.3	0.0	136.3	0.0	178.3	0.0	227.0	0.0	266.4	0.0	305.1	0.0				
			45.3	45.3	136.3	136.3	178.3	178.3	227.0	227.0	266.4	266.4	305.1	305.1				
ALL	M																	
ALL	F																	
ALL	ALL	137.	57.7	10.1	112.3	20.3	171.7	23.4	214.2	26.0	263.9	28.0	305.1	0.0	0.0	0.0	0.0	0.0
			35.9	104.2	52.6	160.5	124.4	230.2	166.6	269.9	231.9	305.8	305.1	305.1	0.0	0.0	0.0	0.0

GROWTH OF BROOK TROUT IN HEADWATER POND 1980 (SPRING FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75										
76 - 80										
81 - 85										
86 - 90										
91 - 95										
96 - 100	1		1							
101 - 105	2			2						
106 - 110	4		2	2						
111 - 115	8			8						
116 - 120	3			3						
121 - 125	3			3						
126 - 130	2			2						
131 - 135	1			1						
136 - 140	4			4						
141 - 145	2			2						
146 - 150	3			1	2					
151 - 155	2			1	1					
156 - 160	2				2					
161 - 165	7			1	6					
166 - 170	1				1					
171 - 175	2			1	1					
176 - 180	2			1	1					
181 - 185	1				1					
186 - 190	7				7					
191 - 195	8				6	2				
196 - 200	4				3	1				
201 - 205	5				4	1				
206 - 210	9				7	2				
211 - 215	12				9	3				
216 - 220	5				2	3				
221 - 225	6				4	2				
226 - 230	2					2				
231 - 235	5				2	3				
236 - 240	3				2	1				
241 - 245	4				1	3				
246 - 250										
251 - 255	1				1					
256 - 260	6					4	2			
261 - 265	1					1				
266 - 270	1					1				
271 - 275	1					1				

276 - 280	1					1	
281 - 285	1				1		
286 - 290							
291 - 295							
296 - 300	1				1		
301 - 305							
306 - 310	1				1		
311 - 315							
316 - 320	1					1	
321 - 325							
326 - 330	1						1
331 - 335							
336 - 340	1					1	
TOTAL	137	3	32	63	33	5	1

14(v)

PROGRAM SCALES TABLE ONE GROWTH OF BROOK TROUT IN HEADWATER POND 1980 (FALL FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
1	M													
1	F													
1	ALL	21.	100.9	17.9	72.0	134.0	14.3	6.9	6.0	29.0	10.0	2.4	6.0	14.0
2	M													
2	F													
2	ALL	70.	157.2	23.0	102.0	208.0	47.8	20.7	12.0	107.0	17.4	3.2	11.0	28.0
3	M													
3	F													
3	ALL	96.	214.2	27.5	169.0	284.0	121.7	47.6	57.0	264.0	22.9	3.9	14.0	34.0
4	M													
4	F													
4	ALL	34.	263.4	28.3	225.0	346.0	231.0	83.8	124.0	503.0	28.5	4.1	21.0	37.0
5	M													
5	F													
5	ALL	5.	326.0	36.5	277.0	368.0	457.6	124.5	281.0	588.0	33.2	3.3	29.0	37.0
ALL	M													
ALL	F													
ALL	ALL	226.	195.9	56.3	72.0	368.0	112.7	97.0	6.0	588.0	21.1	6.5	6.0	37.0

TOTAL NUMBER OF FISH 226

NO. OF IMMATURE FISH 0

NO. OF MATURE FISH 0

AVE AGE (NO. ANNULI) 2.7 S.D. 0.9

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.5948

CORRELATION COEFF. 0.8502

REGRESSION LINE:

LN LENGTH(MM) = 2.9136 + 0.774 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:

INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR FEMALES:
INSUFFICIENT DATA TO CALCULATE REQUIRED PARAMETERS

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.8571 + 2.970 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9958

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN HEADWATER POND 1980 (FALL FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	FIRST S.D. / MAX	SECOND MEAN / MIN	SECOND S.D. / MAX	THIRD MEAN / MIN	THIRD S.D. / MAX	FOURTH MEAN / MIN	FOURTH S.D. / MAX	FIFTH MEAN / MIN	FIFTH S.D. / MAX	SIXTH MEAN / MIN	SIXTH S.D. / MAX	SEVENTH MEAN / MIN	SEVENTH S.D. / MAX	EIGHTH MEAN / MIN	EIGHTH S.D. / MAX
1	M																	
1	F																	
1	ALL	21.	55.9	7.9														
			45.4	74.9														
2	M																	
2	F																	
2	ALL	70.	53.4	8.9	100.6	18.7												
			34.6	78.1	67.8	155.7												
3	M																	
3	F																	
3	ALL	96.	55.2	8.5	104.7	21.3	162.6	26.6										
			35.8	77.5	62.2	174.4	111.2	229.3										
4	M																	
4	F																	
4	ALL	34.	53.7	9.7	99.0	16.7	156.3	19.4	212.4	19.9								
			34.0	70.3	67.9	125.2	119.9	203.2	166.9	257.5								
5	M																	
5	F																	
5	ALL	5.	60.1	4.6	113.8	13.4	178.7	20.2	235.8	21.3	281.5	25.5						
			54.0	65.3	98.5	129.1	147.9	200.3	202.6	255.3	247.7	306.1						
ALL	M																	
ALL	F																	
ALL	ALL	226.	54.6	8.7	102.6	19.6	161.6	25.0	215.4	21.3	281.5	25.5	0.0	0.0	0.0	0.0	0.0	0.0
			34.0	78.1	62.2	174.4	111.2	229.3	166.9	257.5	247.7	306.1	0.0	0.0	0.0	0.0	0.0	0.0

GROWTH OF BROOK TROUT IN HEADWATER POND 1980 (FALL FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60										
61 - 65										
66 - 70										
71 - 75	2		2							
76 - 80	2		2							
81 - 85	1		1							
86 - 90	1		1							
91 - 95	2		2							
96 - 100	2		2							
101 - 105	3		2	1						
106 - 110	4		3	1						
111 - 115	2		2							
116 - 120	5		2	3						
121 - 125	2			2						
126 - 130	1			1						
131 - 135	4		2	2						
136 - 140	3			3						
141 - 145	9			9						
146 - 150	6			6						
151 - 155	4			4						
156 - 160	8			8						
161 - 165	4			4						
166 - 170	9			7	2					
171 - 175	7			2	5					
176 - 180	12			6	6					
181 - 185	10			4	6					
186 - 190	7			2	5					
191 - 195	3			1	2					
196 - 200	8			1	7					
201 - 205	8			2	6					
206 - 210	5			1	4					
211 - 215	10				10					
216 - 220	4				4					
221 - 225	7				6	1				
226 - 230	8				6	2				
231 - 235	7				5	2				
236 - 240	6				5	1				
241 - 245	7				3	4				
246 - 250	6				5	1				
251 - 255	8				4	4				
256 - 260	2					2				
261 - 265	4				1	3				
266 - 270	7				1	6				
271 - 275	2				1	1				

276 - 280	3			1	1	1
281 - 285	1			1		
286 - 290	1				1	
291 - 295	1				1	
296 - 300	1				1	
301 - 305	1					1
306 - 310	1				1	
311 - 315						
316 - 320						
321 - 325						
326 - 330						
331 - 335	1					1
336 - 340	1				1	
341 - 345						
346 - 350	2				1	1
351 - 355						
356 - 360						
361 - 365						
366 - 370	1					1
TOTAL	226	21	70	96	34	5

14(vi)

PROGRAM SCALES TABLE ONE GROWTH OF BROOK TROUT IN HEADWATER POND 1978-1980(TRAP AND FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	LENGTH AT CAPTURE (MM) MEAN	S.D.	MIN	MAX	WEIGHT AT CAPTURE (G) MEAN	S.D.	MIN	MAX	MAGNIFIED SCALE RADIUS (MM) MEAN	S.D.	MIN	MAX
0	M													
0	F													
0	ALL	3.	60.7	6.4	56.0	68.0	7.0	7.9	1.0	16.0	8.7	0.6	8.0	9.0
1	M													
1	F													
1	ALL	73.	97.9	18.3	65.0	155.0	12.9	6.9	4.0	40.0	11.7	3.2	6.0	22.0
2	M	1.	195.0	0.0	195.0	195.0	75.0	0.0	75.0	75.0	21.0	0.0	21.0	21.0
2	F	2.	110.0	7.1	105.0	115.0	16.5	2.1	15.0	18.0	17.0	1.4	16.0	18.0
2	ALL	234.	158.5	31.0	102.0	255.0	50.5	29.5	12.0	192.0	18.0	4.2	8.0	31.0
3	M	2.	211.5	19.1	198.0	225.0	93.0	15.6	82.0	104.0	26.0	0.0	26.0	26.0
3	F	1.	189.0	0.0	189.0	189.0	77.0	0.0	77.0	77.0	27.0	0.0	27.0	27.0
3	ALL	264.	216.1	31.5	147.0	299.0	124.6	55.1	36.0	313.0	23.7	4.9	12.0	40.0
4	M	2.	308.0	28.3	288.0	328.0	327.0	5.7	323.0	331.0	44.0	5.7	40.0	48.0
4	F													
4	ALL	94.	260.9	35.2	191.0	346.0	218.7	92.0	81.0	503.0	28.1	5.7	18.0	50.0
5	M													
5	F	1.	340.0	0.0	340.0	340.0	568.0	0.0	568.0	568.0	39.0	0.0	39.0	39.0
5	ALL	15.	313.1	33.3	260.0	368.0	393.4	133.7	181.0	588.0	33.2	4.6	26.0	41.0
6	M													
6	F													
6	ALL	1.	328.0	0.0	328.0	328.0	497.0	0.0	497.0	497.0	38.0	0.0	38.0	38.0
ALL	M	5.	246.8	58.8	195.0	328.0	183.0	131.9	75.0	331.0	32.2	11.3	21.0	48.0
ALL	F	4.	187.2	104.5	105.0	340.0	169.5	267.2	15.0	568.0	25.0	10.5	16.0	39.0
ALL	ALL	684.	191.5	59.7	56.0	368.0	106.2	94.5	1.0	588.0	21.2	6.9	6.0	50.0

TOTAL NUMBER OF FISH 684

NO. OF IMMATURE FISH 3

NO. OF MATURE FISH 5

AVE AGE (NO. ANNULI) 2.6 S.D. 0.9

NOTE:
BACK-CALCULATIONS WILL BE DONE WITH A USER-SUPPLIED INTERCEPT VALUE OF 2.5948

CORRELATION COEFF. 0.8579

REGRESSION LINE:

LN LENGTH(MM) = 2.6552 + 0.849 (LN MAGNIFIED SCALE RADIUS (MM))

LENGTH-WEIGHT REGRESSION LINES:

FOR MALES:
LOG WEIGHT(G) =-5.2426 + 3.109 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9737

FOR FEMALES:
LOG WEIGHT(G) =-5.1418 + 3.109 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9986

FOR THE ENTIRE SAMPLE:
LOG WEIGHT(G) =-4.7705 + 2.930 (LOG LENGTH(MM)) CORRELATION COEFF. 0.9896

PROGRAM SCALES TABLE TWO GROWTH OF BROOK TROUT IN HEADWATER POND 1978-1980(TRAP AND FYKENETTED FISH ONLY)

NO. OF ANNULI	SEX	NO. FISH	EXPECTED LENGTHS AT EACH ANNULUS FORMATION (MM) FIRST MEAN / MIN	S.D. / MAX	SECOND MEAN / MIN	S.D. / MAX	THIRD MEAN / MIN	S.D. / MAX	FOURTH MEAN / MIN	S.D. / MAX	FIFTH MEAN / MIN	S.D. / MAX	SIXTH MEAN / MIN	S.D. / MAX	SEVENTH MEAN / MIN	S.D. / MAX	EIGHTH MEAN / MIN	S.D. / MAX
1	M																	
1	F																	
1	ALL	73.	61.6	10.6														
			42.2	90.9														
2	M	1.	83.4	0.0	161.9	0.0												
			83.4	83.4	161.9	161.9												
2	F	2.	56.8	8.6	92.7	3.8												
			50.7	62.9	90.0	95.4												
2	ALL	234.	64.3	15.5	118.7	26.6												
			34.6	117.4	52.6	198.4												
3	M	2.	69.0	9.2	139.5	0.3	186.8	11.2										
			63.2	74.7	139.4	139.7	178.9	194.7										
3	F	1.	78.2	0.0	124.2	0.0	166.2	0.0										
			78.2	78.2	124.2	124.2	166.2	166.2										
3	ALL	264.	63.3	14.4	119.9	25.9	177.2	28.4										
			35.8	121.3	60.9	212.8	111.2	263.1										
4	M	2.	67.0	10.7	119.4	1.2	202.7	16.1	273.0	12.9								
			59.4	74.6	118.5	120.3	191.3	214.1	263.8	282.1								
4	F																	
4	ALL	96.	60.3	14.5	114.0	24.3	171.5	26.3	222.3	27.0								
			34.0	114.8	67.9	184.2	119.9	238.1	166.6	282.1								
5	M																	
5	F	1.	55.5	0.0	146.3	0.0	171.8	0.0	205.1	0.0	253.8	0.0						
			55.5	55.5	146.3	146.3	171.8	171.8	205.1	205.1	253.8	253.8						
5	ALL	15.	60.3	9.1	115.1	18.3	169.2	18.8	224.0	18.8	274.3	24.8						
			35.9	72.3	86.5	146.3	134.7	200.3	188.7	255.3	231.9	306.1						
6	M																	
6	F																	
6	ALL	1.	45.3	0.0	136.3	0.0	178.3	0.0	227.0	0.0	266.4	0.0	305.1	0.0				
			45.3	45.3	136.3	136.3	178.3	178.3	227.0	227.0	266.4	266.4	305.1	305.1				
ALL	M	5.	71.1	9.7	136.0	17.7	194.8	14.6	273.0	12.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			59.4	83.4	118.5	161.9	178.9	214.1	263.8	282.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	F	4.	61.8	12.0	114.0	26.2	169.0	4.0	205.1	0.0	253.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			50.7	78.2	90.0	146.3	166.2	171.8	205.1	205.1	253.8	253.8	0.0	0.0	0.0	0.0	0.0	0.0
ALL	ALL	681.	63.0	14.4	118.4	25.8	175.5	27.6	222.6	25.8	273.8	24.0	305.1	0.0	0.0	0.0	0.0	0.0
			34.0	121.3	52.6	212.8	111.2	263.1	166.6	282.1	231.9	306.1	305.1	305.1	0.0	0.0	0.0	0.0

GROWTH OF BROOK TROUT IN HEADWATER POND 1978-1980(TRAP AND FYKENETTED FISH ONLY)

LENGTH INTERVAL (MM)	NO. OF FISH	AGE GROUP 0	1	2	3	4	5	6	7	8
1 - 5										
6 - 10										
11 - 15										
16 - 20										
21 - 25										
26 - 30										
31 - 35										
36 - 40										
41 - 45										
46 - 50										
51 - 55										
56 - 60	2	2								
61 - 65	1		1							
66 - 70	3	1	2							
71 - 75	5		5							
76 - 80	8		8							
81 - 85	4		4							
86 - 90	8		8							
91 - 95	7		7							
96 - 100	5		5							
101 - 105	10		6	4						
106 - 110	12		9	3						
111 - 115	21		7	14						
116 - 120	16		5	11						
121 - 125	14		1	13						
126 - 130	6		1	5						
131 - 135	9		3	6						
136 - 140	14			14						
141 - 145	18			18						
146 - 150	14			12	2					
151 - 155	14		1	12	1					
156 - 160	15			12	3					
161 - 165	24			15	9					
166 - 170	19			12	7					
171 - 175	17			8	9					
176 - 180	29			22	7					
181 - 185	19			11	8					
186 - 190	22			9	13					
191 - 195	23			8	13	2				
196 - 200	20			3	16	1				
201 - 205	23			5	17	1				
206 - 210	19			4	13	2				
211 - 215	29			3	23	3				
216 - 220	16			3	10	3				
221 - 225	21			3	15	3				
226 - 230	14			1	9	4				
231 - 235	20				15	5				
236 - 240	16			1	12	3				
241 - 245	20			1	12	7				
246 - 250	11				9	2				
251 - 255	22			1	15	6				
256 - 260	11				3	6	2			
261 - 265	12				4	8				
266 - 270	13				6	7				
271 - 275	9				5	4				

276 - 280	9				3	4	2	
281 - 285	3				2	1		
286 - 290	5				1	4		
291 - 295	2					2		
296 - 300	4				2	2		
301 - 305	4					1	3	
306 - 310	5					5		
311 - 315	1					1		
316 - 320	1						1	
321 - 325	1					1		
326 - 330	4					3		1
331 - 335	4					1	3	
336 - 340	3					1	2	
341 - 345								
346 - 350	2					1	1	
351 - 355								
356 - 360								
361 - 365								
366 - 370	1						1	
TOTAL	684	3	73	234	264	94	15	1