

DFO - Library / MPO - Bibliothèque

08000398

Scientific Excellence • Resource Protection & Conservation • Benefits for Canadians
Excellence scientifique • Protection et conservation des ressources • Bénéfices aux Canadiens

The Gulf Region Parr/Smolt Quality Evaluation Programme: 1989-1993

K. Davidson, P. Swan and J. Hayward

Science Branch

Department of Fisheries and Oceans

Gulf Region

C.P. 5030, Moncton (Nouveau-Brunswick), Canada E1C 9B6

1995

Canadian Data Report of Fisheries and Aquatic Sciences No. 954



Fisheries
and Oceans

Pêches
et Océans

Canada

Canadian Data Report of Fisheries and Aquatic Sciences

Data reports provide a medium for filing and archiving data compilations where little or no analysis is included. Such compilations commonly will have been prepared in support of other journal publications or reports. The subject matter of data reports reflects the broad interests and policies of the Department of Fisheries and Oceans, namely, fisheries and aquatic sciences.

Data reports are not intended for general distribution and the contents must not be referred to in other publications without prior written authorization from the issuing establishment. The correct citation appears above the abstract of each report. Data reports are abstracted in *Aquatic Sciences and Fisheries Abstracts* and indexed in the Department's annual index to scientific and technical publications.

Numbers 1-25 in this series were issued as Fisheries and Marine Service Data Records. Numbers 26-160 were issued as Department of Fisheries and the Environment, Fisheries and Marine Service Data Reports. The current series name was introduced with the publication of report number 161.

Data reports are produced regionally but are numbered nationally. Requests for individual reports will be filled by the issuing establishment listed on the front cover and title page. Out-of-stock reports will be supplied for a fee by commercial agents.

Rapport statistique canadien des sciences halieutiques et aquatiques

Les rapports statistiques servent à classer et à archiver les compilations de données pour lesquelles il y a peu ou point d'analyse. Ces compilations auront d'ordinaire été préparées à l'appui d'autres publications ou rapports. Les sujets des rapports statistiques reflètent la vaste gamme des intérêts et des politiques du ministère des Pêches et des Océans, c'est-à-dire les sciences halieutiques et aquatiques.

Les rapports statistiques ne sont pas destinés à une vaste distribution et leur contenu ne doit pas être mentionné dans une publication sans autorisation écrite préalable de l'établissement auteur. Le titre exact paraît au-dessus du résumé de chaque rapport. Les rapports statistiques sont résumés dans la revue *Résumés des sciences aquatiques et halieutiques*, et ils sont classés dans l'index annuel des publications scientifiques et techniques du Ministère.

Les numéros 1 à 25 de cette série ont été publiés à titre de relevés statistiques, Services des pêches et de la mer. Les numéros 26 à 160 ont été publiés à titre de rapports statistiques du Service des pêches et de la mer, ministère des Pêches et de l'Environnement. Le nom actuel de la série a été établi lors de la parution du numéro 161.

Les rapports statistiques sont produits à l'échelon régional, mais numérotés à l'échelon national. Les demandes de rapports seront satisfaites par l'établissement auteur dont le nom figure sur la couverture et la page du titre. Les rapports épuisés seront fournis contre rétribution par des agents commerciaux.

i

Canadian Data Report of Fisheries and Aquatic Sciences

No. 954

1995



The Gulf Region Parr/Smolt Quality Evaluation Programme: 1989-1993

by

Kevin Davidson, Perry Swan and John Hayward

Marine and Anadromous Fish Division

Gulf Fisheries Centre

Department of Fisheries and Oceans

P.O. Box 5030, Moncton, New Brunswick, CANADA E1C 9B6

© Minister of Supply and Services Canada 1995
Cat. No. Fs 97-13/954E ISSN 0706-6465

Correct citation for this publication:

Davidson, K., P. Swan and J. Hayward. 1995. The Gulf Region Parr/Smolt Quality Evaluation Programme: 1989-1993. Can. Data Rep. Fish. Aquat. Sci. 954: viii+145 p.

TABLE OF CONTENTS

1. Introduction	1
2. Material and Methods	3
3. Results and Discussion	6
4. Conclusions	9
5. References	10

LIST OF TABLES

Table 1.	Direct and weighted fin score values used in the Gulf Region parr/smolt quality evaluation programme.	11
Table 2.	Quality designations based on total weighted fin score values for Atlantic salmon parr and smolts sampled in the Gulf Region parr/smolt quality evaluation programme.	11
Table 3.	Quality evaluation summary for 1+ Atlantic salmon parr reared at the Cardigan SEC: 1989-1993.	12
Table 4.	Quality evaluation summary for 1+ Atlantic salmon smolt reared at the Cardigan SEC: 1989-1993.	13
Table 5.	Quality evaluation summary for 2+ Atlantic salmon smolt reared at the Cardigan SEC: 1989-1993.	14
Table 6.	Quality evaluation summary of 2+ Atlantic salmon smolt reared at Mooney's Pond (Cardigan SEC): 1989-1993.	15
Table 7.	Quality evaluation summary for 2+ Atlantic salmon smolt reared at Profitt's Pond (Cardigan SEC): 1989-1993.	16
Table 8.	Quality evaluation summary for 1+ Atlantic salmon parr reared at the Charlo SEC: 1989-1993.	17
Table 9.	Quality evaluation summary of 2+ Atlantic salmon parr reared at the Charlo SEC: 1989-1993.	18
Table 10.	Quality evaluation summary of 2+ Atlantic salmon smolt reared at the Charlo SEC: 1989-1993.	19
Table 11.	Quality evaluation summary of 1+ Atlantic salmon parr reared at the Margaree SEC: 1989-1993.	20
Table 12.	Quality evaluation summary of 1+ Atlantic salmon parr reared at the Lake O'Law cages (Margaree SEC): 1989-1993.	21
Table 13.	Quality evaluation summary of 2+ Atlantic salmon parr reared at the Margaree SEC: 1989-1993.	22

Table 14.	Quality evaluation summary of 2+ Atlantic salmon parr reared at the Lake O'Law cages (Margaree SEC): 1989-1993.	23
Table 15.	Quality evaluation summary of 2+ Atlantic salmon smolt reared at the Margaree SEC: 1989-1993.	24
Table 16.	Quality evaluation summary of 2+ Atlantic salmon smolt reared at the Lake O'Law cages (Margaree SEC): 1989-1993.	25
Table 17.	Quality evaluation summary of 1+ Atlantic salmon parr reared at the Miramichi SEC: 1989-1993.	26
Table 18.	Quality evaluation summary of 1+ Atlantic salmon smolt reared at the Miramichi SEC: 1989-1993.	27
Table 19.	Quality evaluation summary of 2+ Atlantic salmon parr reared at the Miramichi SEC: 1989-1993.	28
Table 20.	Quality evaluation summary of 2+ Atlantic salmon smolt reared at the Miramichi SEC: 1989-1993.	29
Table 21.	Quality evaluation summary of 2+ Atlantic salmon parr reared at the Heath Steele Lake cage (Miramichi SEC): 1989-1993.	30
Table 22.	Quality evaluation summary of 2+ Atlantic salmon smolt reared at the Vernon Goodfellow's Pond (Miramichi SEC): 1989-1993.	31
Table 23.	Quality evaluation summary of 2+ Atlantic salmon smolt reared at the Gulf Region SECs: 1989-1993.	32
Table 24.	Quality evaluation summary of 2+ Atlantic salmon smolt reared at the Gulf Region Lake cages: 1989-1993.	33
Table 25.	Quality evaluation summary of 2+ Atlantic salmon smolt reared at the Gulf Region Semi-natural Ponds: 1989-1993.	34

LIST OF FIGURES

Figure 1. Salmonid Enhancement Centres and associate facilities in the Department of Fisheries and Oceans Gulf Region 2

Figure 2. Method used by the Gulf Region parr/smolt quality evaluation programme for quantifying fin damage 5

LIST OF APPENDICES

A. 1989 Gulf Region parr/smolt quality evaluation

- i. 1-5 Cardigan SEC results
- ii. 1-2 Charlo SEC results
- iii. 1-9 Margaree SEC results
- iv. 1-4 Miramichi SEC results

B. 1990 Gulf Region parr/smolt quality evaluation

- i. 1-5 Cardigan SEC results
- ii. 1-2 Charlo SEC results
- iii. 1-9 Margaree SEC results
- iv. 1-6 Miramichi SEC results

C. 1991 Gulf Region parr/smolt quality evaluation

- i. 1-7 Cardigan SEC results
- ii. 1-2 Charlo SEC results
- iii. 1-13 Margaree SEC results
- iv. 1-7 Miramichi SEC results

D. 1992 Gulf Region parr/smolt quality evaluation

- i. 1-6 Cardigan SEC results
- ii. 1-2 Charlo SEC results
- iii. 1-7 Margaree SEC results
- iv. 1-5 Miramichi SEC results

E. 1993 Gulf Region parr/smolt quality evaluation

- i. 1-4 Cardigan SEC results
- ii. 1-4 Charlo SEC results
- iii. 1-6 Margaree SEC results
- iv. 1-6 Miramichi SEC results

ABSTRACT

Davidson, K., P. Swan and J. Hayward. 1995. The Gulf Region Parr/Smolt Quality Evaluation Programme: 1989-1993. Can. Data Rep. Fish. Aquat. Sci. 954: viii+145 p.

A programme was initiated in 1988 to assess the fin quality and growth characteristics of parr and smolt reared at the Department of Fisheries and Oceans' Salmonid Enhancement Centres (SECs) and their associated facilities. Summaries for data collected through this programme from 1989 to 1993 are presented.

The quality of 1+ parr reared at the SECs increased over the sampling period. The quality of 1+ smolts reared at the SECs was variable but was higher than that of 2+ smolts reared at these facilities. The average quality of 2+ smolts reared at the SECs was poor. The percentage of good-to-perfect quality 2+ smolts reared in lake cages and semi-natural ponds was twice that of 2+ smolts reared at the SECs. Condition factors for lake cage and semi-natural pond reared smolts were lower than those of 2+ smolts reared at the SECs. With the exception of one sample from Mooney's Pond, Prince Edward Island, the best quality 2+ smolts sampled over the 1989 to 1993 period were reared in semi-natural ponds.

RESUME

Davidson, K., P. Swan and J. Hayward. 1995. The Gulf Region Parr/Smolt Quality Evaluation Programme: 1989-1993. Can. Data Rep. Fish. Aquat. Sci. 954: viii+145 p.

En 1988, un programme fut mis sur pied afin d'évaluer la croissance et la qualité des nageoires des tacons et des saumoneaux élevés aux Centres de Mise en Valeur des Salmonidés (CMVS) du Ministère des Pêches et Océans et aux installations associées. Les données sommaires de 1989 à 1993 sont présentées.

La qualité des tacons 1+ élevés aux CMVS s'est améliorée au cours de la période d'échantillonnage. La qualité des saumoneaux 1+, élevés aux CMVS était variable mais supérieure à celle des saumoneaux 2+. En moyenne, la qualité des saumoneaux 2+, élevés aux CMVS, était faible. Le pourcentage de saumoneaux 2+ de bonne à parfaite qualité élevés dans des cages et des étangs semi-naturels était le double du pourcentage de saumoneaux 2+ élevés aux CMVS. Les facteurs de condition des saumoneaux élevés dans les cages ou les étangs étaient moindres que pour les saumoneaux 2+ élevés aux CMVS. Sauf pour un échantillon à l'étang Mooney, Ile-du-Prince-Edward, la meilleure qualité de saumoneaux 2+ échantillonnés au cours de la période de 1989 à 1993 provenait des saumoneaux élevés dans des étang semi-naturels.

1. Introduction

The Department of Fisheries and Oceans' Gulf Region Science Branch operates four fish culture facilities which rear Atlantic salmon, *Salmo salar*, and (to a lesser extent) speckled trout, *Salvelinus fontinalis*, and rainbow trout, *Onchorynchus mykiss*, in support of salmonid enhancement initiatives throughout the Region. These facilities are:

- 1) The Margaree Salmonid Enhancement Centre located at the confluence of Ingraham Brook and the Northeast Margaree River in Cape Breton, Nova Scotia (Figure 1A).
- 2) The Cardigan Salmonid Enhancement Centre on the Cardigan River near Cardigan in eastern Prince Edward Island (Figure 1B).
- 3) The Miramichi Salmonid Enhancement Centre at the confluence of Stewart Brook and the Main Northwest Miramichi River at South Esk, New Brunswick (Figure 1C).
- 4) The Charlo Salmonid Enhancement Centre on the South Charlo River near Charlo, New Brunswick (Figure 1D).

In addition to their role of rearing and stocking salmonids directly from their facilities, the Gulf Region Salmonid Enhancement Centres (SECs) supply thousands of Atlantic salmon annually for further rearing in off-site or associate facilities such as semi-natural rearing ponds, lake cages, satellite tanks, and the indoor fish culture facility at the Correctional Services of Canada's Renous Institute.

A programme was initiated in 1988 to monitor the quality and growth characteristics of the Atlantic salmon parr and smolt reared at the Gulf Region's SECs and, where possible, their associate facilities. During the 1989-1993 period, quality evaluations were conducted for parr and\or smolt reared at the following associate facilities:

- a) Lake-O-Law lake cages - these are 14.2m. long x 7.1m. wide x 3m. deep lake cages located in Lake-O-Law which is adjacent to the Cabot Trail near Margaree Valley and is the headwater of Lake-O-Law Brook, a tributary of the Northeast Margaree River (Figure 1A).
- b) Mooney's Pond - this approximately 1.2 hectare pond is located on the West Branch of the Morell River near Peakes in Kings Co., Prince Edward Island, (Figure 1E) and is operated in collaboration with the Morell River Coop.
- c) Profitt's Pond - this 0.7 hectare pond is located on Caine's Brook near Rosebank, Prince Co., Prince Edward Island (Figure 1F) and is operated in collaboration with the O'Leary Wildlife Federation.

2

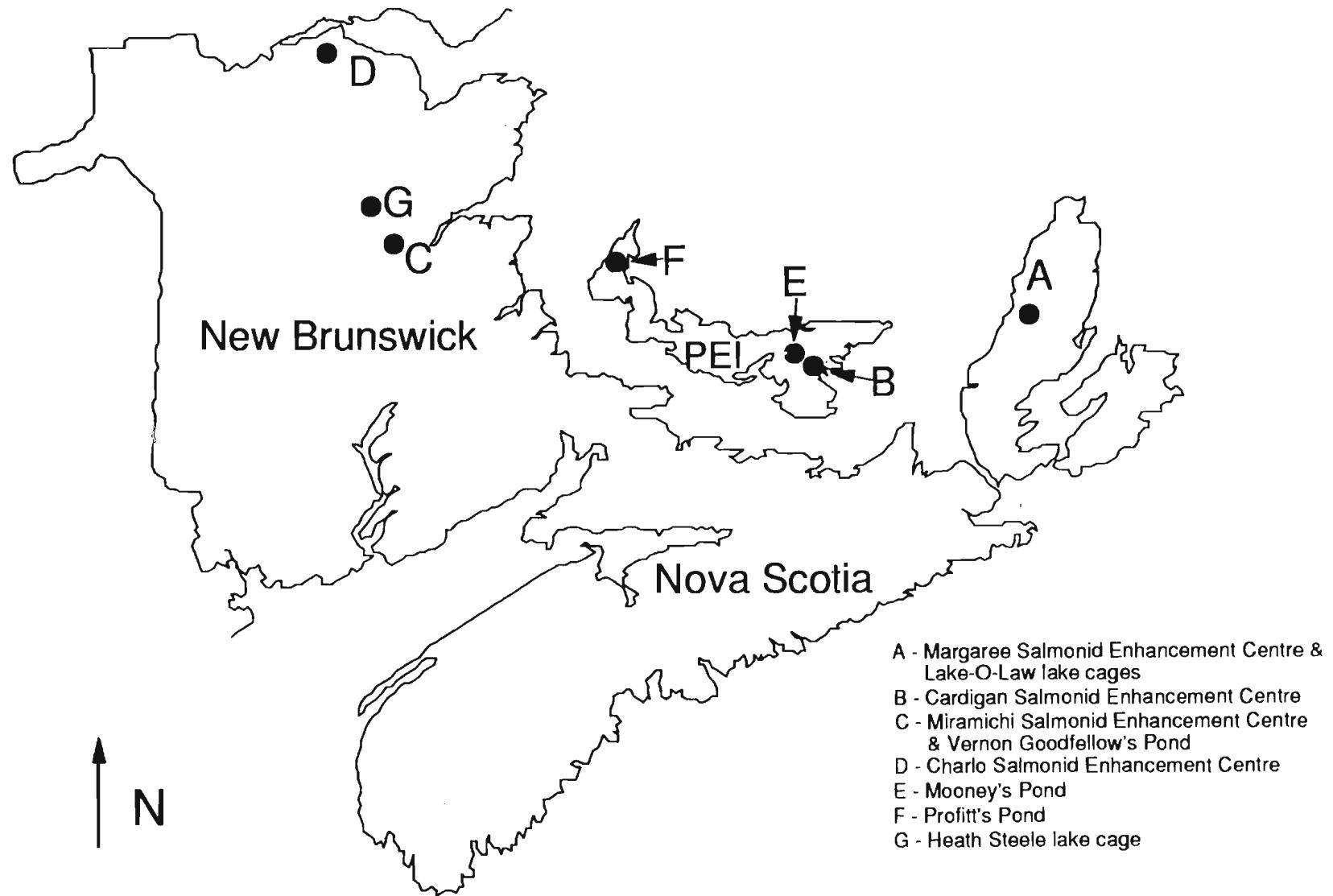


Figure 1. Salmonid Enhancement Centers and associate facilities of the Department of Fisheries and Oceans' Gulf Region.

- d) Vernon Goodfellow's Pond - this is a small (>0.2 hectare) pond located adjacent to the Northwest Miramichi River near South Esk, New Brunswick (Figure 1C) which is operated in collaboration with the Northumberland Salmon Protection Association.
- e) Heath Steele lake cage - of the design as the Lake-O-Law cage, this cage is operated in conjunction with Heath Steele Mines Inc. in McCormack Lake which empties into the Temogonops River, a tributary of the Northwest Miramichi (Figure 1G).

Initial quality evaluation systems developed by what is now the Department of Fisheries and Oceans' Scotia-Fundy Region (Frantsi et al., 1972) measured a number of haematological parameters, length, weight, condition factor, and fin condition. The haematological work, in addition to being time consuming and expensive, proved difficult to interpret and has subsequently been dropped (Anon. 1994). The current evaluation system used in the Scotia-Fundy Region measures only growth and fin condition characteristics, both of which have been shown to be positively correlated with survival rates (Farmer, 1994). The evaluation system described in this document is based upon the Scotia-Fundy system.

The objectives of the evaluation programme are:

- 1) to monitor growth and fin quality of Atlantic salmon as it relates to rearing practices and regimes, and stock origins;
- 2) to develop a data base for comparing growth and quality characteristics of Atlantic salmon reared at, and stocked from Gulf Region SECs and their associated facilities to their post-stocking survival;
- 3) on the basis of the results of the above, to modify fish culture practices used at the Gulf Region SECs and their associate facilities to maximize their production efficiency and the survival of Atlantic salmon stocked from these facilities.

2. Material and Methods

Sample groups were defined annually by the SEC Managers based upon differences in rearing regimes (tank types, water sources or velocities, feeding rates, oxygen levels, light regimes etc.), genetic origin, size grade (if applicable) and age. For the purpose of consistency in terminology the following scheme was used to define ages:

Hatch through to April 30 of the following year - 0+

May 1 through to April 30 of the next year - 1+ (smolt or parr)

May 1 through to April 30 of the next year - 2+ (smolt or parr)
etc.

All salmon sampled between July 1 and April 30 of the subsequent year, regardless of age, were designated as parr.

A random sample of 80-100 fish was taken from each group. The following was recorded/calculated for each fish:

- a) Forklength (cm. to the nearest 0.1)
- b) Weight (gm. to the nearest 0.1)
- c) Condition factor - (weight/forklength³) X 100
- d) Fin condition (see below for description)

The occurrence of precocity, lordosis, scoliosis, or other growth abnormalities was noted.

For each sample, means and standard deviations were calculated, and minimum and maximum values are given for forklength, weight, and condition factor. A linear regression was performed on the log_e transformed forklength and weight values to give a weight-length relationship for each sample (Appendices A-E).

Fin Condition:

Fin condition was measured quantitatively in terms of the amount of fin tissue lost to fin erosion for all fins except the adipose fin. The caudal fin is divided into upper and lower halves with each half being assessed as a separate fin. Damage to the fin tissue was quantified according to the scheme outlined in Figure 2 and was defined using the following values:

No fin damage =	0
0-1/3 of the tissue missing =	1
1/3-2/3 of the fin tissue missing =	2
2/3 or greater of the fin tissue missing =	3

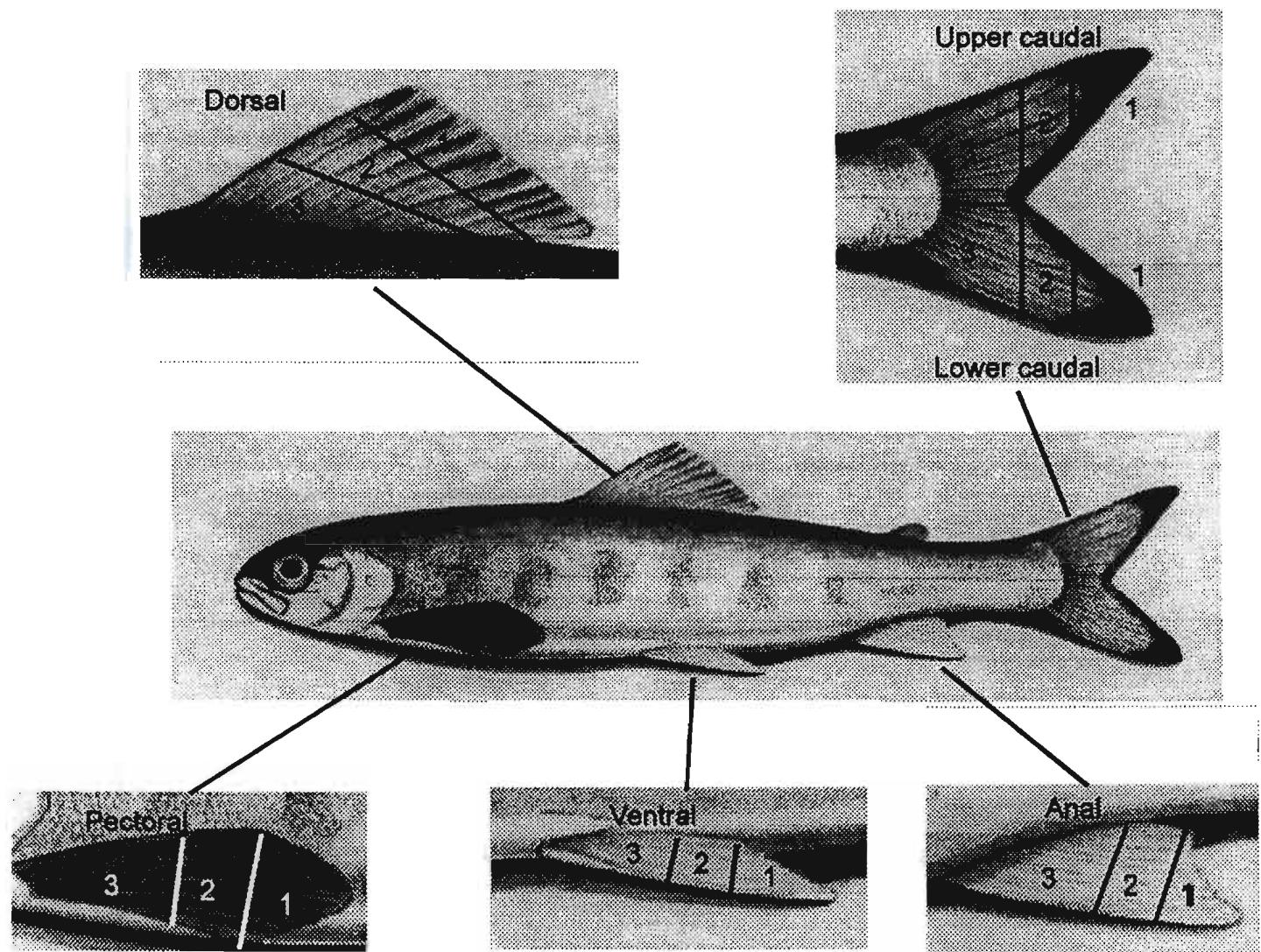
When fin damage was noted, a code was added to each fin score value as follows:

E - designates a fin exhibiting erosion only. There is no ongoing rot and the perimeter of the fin is healed over with healthy tissue concealing the tips of the fin rays.

R - designates a fin exhibiting erosion with ongoing rot. The perimeter of the fin is composed of necrotic tissue and the tips of the fin rays are exposed (this can be easily felt by rubbing the perimeter of the fin with ones' fingertip).

The occurrence of each coded fin score value for each fin was summarized for all the fish in each sample.

Figure 2: Method used by the Gulf Region parr/smolt quality evaluation programme for quantifying fin damage



Previous research relating fin condition to sea-survival (Anon. 1994), has shown that the relative importance of fin erosion differs between fins and a scoring system which weights the relative importance of each fin in terms of the amount of fin tissue lost and the presence/absence of ongoing rot has been developed (Table 1). Using this system, raw fin scores are converted to weighted values. The mean weighted value for each fin and for all the fins combined was calculated for all the fish in the sample. In addition, weighted values for each fish were totalled and a quality designation for each fish was assigned according to the scheme outlined in Table 2.

A summary of the frequency and percentage of fish of each quality is presented for each sample (Appendices A-E).

In addition to summaries for each individual sample, summaries of the above noted parameters and characteristics were prepared for all salmon of a given age reared at each SEC or its associated facilities (lake cages, semi-natural ponds) for the entire 1989-1993 period (ie. 1+ parr at the Charlo SEC - Tables 3-22). Evaluation summaries were also prepared for all 2+ smolts produced at the Region's SECs semi-natural ponds, and lake-cages (Tables 23-25).

3. Results and Discussion

General trends in fin erosion (Appendices A,B,C,D,E)

Of the over 10,000 salmon parr and smolt evaluated over the 1989-1993 period, none exhibited any sign of erosion on the anal fin therefore the anal fin was not included in the evaluation summaries. The pattern of fin erosion was basically the same throughout the sampling time period and sampling sites. The dorsal fin generally exhibited the highest degree of erosion or rot, followed by the pectoral fins, the upper caudal fin, the ventral fins, and the lower caudal fin.

SEC Summaries

Cardigan SEC and P.E.I. semi-natural ponds (Tables 3-7, Appendices A.i, B.i., C.i., D.i., E.i.)

1+ parr - Quality and size of the 1+ parr reared at the Cardigan SEC generally increased over the 1989-1993 period. During this period, an average of 51.3% of the 1+ parr reared at the Cardigan SEC were of good-to-perfect quality based upon their fin scores (Table 3). The lowest quality 1+ parr (23% good-to-perfect) were from a sample of Morell salmon progeny sampled in 1989 (Appendix A.i.2). The highest quality 1+ parr were a group of Morell salmon progeny sampled in 1992 (Appendix D.i.3) and a group of reconditioned kelt progeny sampled in 1993 (Appendix E.i.1) both of which scored 83.8% good-to-perfect.

- 1+ smolt -** Only two groups of 1+ smolt were sampled over the 1989-1993 period. These smolt averaged 60.9% good-to-perfect quality (Table 4) but there was a large difference in quality between the two samples. The percentage of good-to-perfect quality 1+ smolt sampled in 1989 (Miramichi Kelt stock), was only 36.4%, 11.1% were excellent, and 0% were perfect (Appendix A.i.4). By contrast, the 1+ smolt sampled in 1993 (reconditioned kelt x Morell salmon stock) were 91.3% good-to-perfect, 26.3% were excellent, and 5% were perfect (Appendix E.i.3). There was also a larger variation in size in the 1989 sample compared to the 1993 sample (Appendices A.i.4 & E.i.3).
- 2+ smolt -** Cardigan SEC produced only limited numbers of 2+ smolt during the 1989-1993 period. The percentage of good-to-perfect quality smolts reared during this period averaged 54% (0.3% perfect; Table 5) and ranged from a low of 17.4% (1.1% perfect; Appendix B.i.2) to a high of 82% (0% perfect; Appendix A.i.5). The quality of semi-naturally reared smolts was considerably higher than those reared at the Cardigan SEC. For smolts produced at Mooney's Pond during the 1989-1993 period, the percentage that were of good-to-perfect quality averaged 56.2% (11.2% perfect; Table 6). This average is low due to the particularly poor quality of the smolts produced in 1990 (Appendix B.i.3). The poor quality of these smolts is attributable to the very poor quality of parr which were stocked into the pond in the fall of 1989. If this sample is not considered, the smolts produced in Mooney's Pond in 1991 and 1992 averaged 85% good-to-perfect quality, (18.1% perfect; Appendices C.i.6 & D.i.5). The percentage of good-to-perfect quality smolts reared at Profit's Pond during the 1989-1993 period averaged 82.9% (7.3% perfect; Table 7) and ranged from 61.3% (5.3% perfect; Appendix C.i.5) to 91.0% (5.0% perfect; Appendix D.i.6). Semi-naturally reared smolts also had higher average lengths and lower condition factors than those reared at the Cardigan SEC (Tables 5-7).

Charlo SEC - (Tables 8-10, Appendices A.ii, B.ii, C.ii, D.ii, E.ii)

- 1+ parr -** The average quality of 1+ parr reared at the Charlo SEC during the 1989-1993 period was higher than those reared at any of the other Gulf Region SECs. Parr quality increased each year. The percentage of good to excellent 1+ parr averaged 93.0% (9.0% perfect; Table 8) and ranged from a low of 77.0% (6.0% perfect) in 1989 (Appendix A.ii.1) to 98.8% (47.5% perfect) in 1993 (Appendix E.ii.2).
- 2+ parr and smolt -** In sharp contrast to the high quality of the 1+ parr reared at Charlo SEC, 2+ parr and smolt reared at this facility were the lowest quality of any smolt produced at Gulf Region SECs. The average percentage of good-to-excellent quality fish of either of these two groups did not exceed 18.4% (0% perfect; Tables 9 & 10) and ranged from 0% (Appendix D.ii.2) to 40% (Appendix A.ii.2). The large loss in quality between the first and second years of growth at the

Charlo SEC prompted the cessation of 2+ smolt production at this facility pending changes to its infrastructure and rearing regimes.

Margaree SEC and Lake-O-Law lake cages- (Tables 11-16, Appendices A.iii, B.iii, C.iii, D.iii, E.iii)

1+ parr - The quality of 1+ parr reared at the Margaree SEC increased between 1989 and 1993. The percentage of good-to-perfect quality 1+ parr averaged 57.7% (Table 11) and ranged from 11% for a sample from a 4.1 m. Swede pond in 1989 (Appendix A.iii.3) to 96.3% for a sample from an 11 m. Swede pond in 1993 (Appendix E.iii.3). A group of large grade 1+ parr reared in a Lake-O-Law lake cage in 1991 had the highest quality of any 1+ parr sampled at Margaree over the 1989-1993 period (97% good-to-perfect quality; Table 12, Appendix C.iii.10).

2+ parr and smolt - The quality of 2+ parr and smolt reared at the Margaree SEC between 1989 and 1993 has remained fairly constant. The percentage of 2+ parr and smolt of good-to-perfect quality averaged 44.4% (4.0% perfect) and 42.0% (0.4% perfect) respectively (Tables 13 & 14) and have ranged from 35% (0% perfect; Appendix B.iii.7) to 45% (0% perfect; Appendix C.iii.11). The quality of 2+ parr and smolt reared in the Lake-O-Law lake cages is higher than that of Margaree SEC reared fish. The percentage of good-to-perfect quality lake cage reared parr and smolts averaged 63% (3.0% perfect) and 70.3% (1.3% perfect) respectively (Tables 15 & 16) and ranged from 53.9% (0% perfect; Appendix C.iii.13) to 87% (6.0% perfect; Appendix B.iii.9).

Miramichi SEC, Heath Steele lake cages and Vernon Goodfellow's semi-natural pond (Tables 17-22, Appendices A.iv, B.iv, C.iv, D.iv, E.iv)

1+ parr - The percentage of good-to-perfect quality 1+ parr reared at the Miramichi SEC over the 1989-1993 period averaged 65.6% (0.4% perfect; Table 17) and showed a general increase from a low of 30% (0% perfect) in 1989 (Appendix A.iv.1) to 83.8% (0% perfect) in 1991 and 1992 (Appendices C.iv.1 & D.iv.1).

1+ smolt - The percentage of 1+ smolt reared at the Miramichi SEC that were of good-to-perfect quality averaged 55.4% (0% perfect; Table 18) and showed considerable variation from a low of 47.5% (0% perfect; Appendix C.iv.3) to a high of 98.6% (0% perfect; Appendix D.iv.3).

2+ parr and smolt - The quality of 2+ parr and smolt reared at the Miramichi SEC between 1989 and 1993 was generally poor and averaged only 38.3% good-to-perfect (0% perfect; Table 20). Four samples had 0-1% good-to-perfect quality fish (Appendices B.iv.5, B.iv.6, E.iv.3, E.iv.4). The best quality 2+ smolts sampled were 61.6% good-to-perfect (3% perfect; Appendix A.iv.4). Smolts reared in the Heath Steel lake cages (100% good-to-perfect, 25% perfect; Table 21 and

Appendix E.iv.6) and Vernon Goodfellow's semi-natural pond (100% good-to-perfect, 36.3 % perfect; Table 22 and Appendix E.iv.5) were of much higher quality than those reared at the Miramichi SEC.

Comparison of the quality of hatchery, lake cage, and semi-naturally reared 2+ smolts

The average quality of 2+ smolts reared at Gulf Region SECs during the 1989-1990 period was poor. The percentage of good-to-perfect quality smolts averaged only 35.1% (0.3% perfect; Table 23). Several of the groups sampled had 0-1% good-to-perfect quality fish (Appendices D.ii.2; B.iv.5, B.iv.6, E.iv.3, E.iv.4). The highest quality hatchery reared 2+ smolt were a group sampled in Cardigan in 1989 which averaged 82% good-to-perfect (0% perfect; Appendix A.i.5).

The average percentage of good-to-perfect quality 2+ smolts reared in lake cages or semi-natural ponds operated in the Gulf Region was twice that of hatchery reared smolts. Smolts reared in Lake-O-Law and Heath Steele lake cage averaged 77.4% good-to-perfect quality (3.8% perfect; Table 24). The percentage of good-to-perfect quality 2+ smolts reared in Profitt's, Mooney's, and Vernon Goodfellow's semi-natural rearing ponds averaged 75.8% (11.6% perfect; Table 25). This average was lowered due to the inclusion of the poor quality smolts produced at Mooney's Pond in 1990 (Appendix B.i.3; see comments under Cardigan SEC and P.E.I. semi-natural ponds). If this sample was removed, the percentage of good-to-perfect quality semi-naturally reared 2+ smolts would average 85.6% (13.6% perfect).

In addition to differences in fin quality, smolts reared in lake cages and semi-natural rearing ponds averaged lower condition factors than those reared at Gulf Region SECs (1.00, 0.90, 1.06 respectively; Tables 23, 24, and 25).

4. Conclusions

- 1) The pattern of fin erosion was basically the same throughout the sampling time period and sampling sites. The dorsal fin generally exhibited the highest degree of erosion or rot, followed by the pectoral fins, the upper caudal fin, the ventral fins, and the lower caudal fin. No erosion was observed on the anal fins of any of the fish sampled.
- 2) There was a general trend toward increases in quality for 1+ parr produced at all of the Gulf Region SECs over the 1989-1993 period. However, the degree of fin loss, condition factors, and size were highly variable between samples from the SECs both within, and between years reflecting differences in rearing regimes.
- 3) The average quality of 1+ smolt produced at Gulf Region SECs between the 1989 to 1993 period varied from mediocre to excellent and was generally much higher than that of 2+ smolts reared at these facilities.

- 4) The average quality of 2+ smolt produced at Gulf Region SECs from 1989 to 1993 was poor.
- 5) Average condition factors were lower and average quality was higher (twice as high) for 2+ smolts reared in lake cages and semi-natural ponds in 1989-1993 compared those reared in the Gulf Region SECs over the same time period. With the exception of one sample, the average quality of semi-naturally reared 2+ smolts was slightly higher than that of those reared in lake cages.

5. Acknowledgements

We wish to thank the managers and staff of the Gulf Region SECs for their extensive assistance in the sampling and data collection for this report. We would also like to thank Shannon Komadina-Douthwright for her assistance with the data compilation and analysis. A special thanks to Monique Niles for her patience and diligence in correcting and preparing the manuscript for publication.

6. References

Anon. 1994. DFO Scotia-Fundy Smolt Quality Evaluation Program: III - VI.

Farmer, G.J. 1994. Some factors which influence the survival of hatchery Atlantic salmon (*Salmo salar*) smolts utilized for enhancement purposes. *Aquaculture*, 121:223-233.

Frantsi, C., J.A. Ritter and A. Foda. 1972. A method used to describe the quality of Atlantic salmon (*Salmo salar*) smolts released from hatcheries in Nova Scotia and New Brunswick. *Prog. Rep. No.7*: 15p.

Table 1. Direct and weighted fin score values used in the Gulf Region parr/smolt quality evaluation programme.

Direct Fin Score	Weighted Fin Score					
	Dorsal	Pectoral Left or Right	Ventral Left or Right	Anal	Caudal Upper	Caudal Lower
1E	0	2	1	0	3	5
1R	1	3	2	1	4	6
2E	1	4	2	1	5	7
2R	2	5	3	2	6	8
3E	2	6	3	2	7	9
3R	3	7	4	3	8	10

Table 2. Quality designations based on total weighted fin score values for Atlantic salmon parr and smolts sampled in the Gulf Region parr/smolt quality evaluation programme.

Total Weighted <u>Fin Score</u>	<u>Quality</u>
0	Perfect
1-3	Excellent
4-6	Good
7-10	Fair
11-15	Poor
>15	Very poor

Table 3. Quality evaluation summary for 1+ Atlantic salmon parr reared at the Cardigan SEC: 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	1120	270	24.1	196	17.5	41	3.7	117	10.4	136	12.1	166	14.8	194	17.3	3.6
Left Pectoral	1120	327	29.2	158	14.1	55	4.9	104	9.3	147	13.1	160	14.3	169	15.1	3.4
Dorsal	1120	7	0.6	21	1.9	1	0.1	172	15.4	18	1.6	850	75.9	51	4.6	3.8
Right Ventral	1120	1107	98.8	2	0.2	0	0.0	2	0.2	0	0.0	9	0.8	0	0.0	0.1
Left Ventral	1120	1098	98.0	3	0.3	0	0.0	4	0.4	1	0.1	13	1.2	1	0.1	0.1
Upper Caudal	1120	949	84.7	79	7.1	26	2.3	19	1.7	21	1.9	13	1.2	13	1.2	0.7
Lower Caudal	1120	1078	96.3	14	1.3	3	0.3	3	0.3	11	1.0	2	0.2	9	0.8	0.3
All Fins Combined																9.9

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	1	0.1	1	0.1
Excellent	108	9.6	109	9.7
Very Good	229	20.4	338	30.2
Good	236	21.1	574	51.3
Poor	399	35.6	973	86.9
Very Poor	147	13.1	1120	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	1120	7.93	1.20	5.50	13.20
Weight in grams	1120	5.71	3.19	1.60	29.30
Condition Factor	1120	1.06	0.12	0.73	1.59

Length/Weight Relationship - Weight=0.0099Length^{1.02996}
 $R^2=0.93065$

Table 4. Quality evaluation summary for 1+ Atlantic salmon smolt reared at the Cardigan SEC: 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	179	73	40.8	34	19.0	1	0.6	23	12.8	10	5.6	14	7.8	24	13.4	2.6
Left Pectoral	179	80	44.7	31	17.3	2	1.1	24	13.4	9	5.0	24	13.4	9	5.0	2.3
Dorsal	179	0	0.0	4	2.2	1	0.6	14	7.8	1	0.6	158	88.3	1	0.6	1.9
Right Ventral	179	133	74.3	2	1.1	1	0.6	10	5.6	11	6.1	11	6.1	11	6.1	1.4
Left Ventral	179	175	97.8	2	1.1	0	0.0	2	1.1	0	0.0	0	0.0	0	0.0	0.1
Upper Caudal	179	172	96.1	2	1.1	0	0.0	3	1.7	0	0.0	2	1.1	0	0.0	0.2
Lower Caudal	179	177	98.9	2	1.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.1
All Fins Combined																8.5

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	4	2.2	4	2.2
Excellent	32	17.9	36	20.1
Very Good	47	26.3	83	46.4
Good	26	14.5	109	60.9
Poor	49	27.4	158	88.3
Very Poor	21	11.7	179	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	179	12.45	1.31	9.50	18.00
Weight in grams	179	20.79	6.87	8.90	59.70
Condition Factor	179	1.05	0.07	0.88	1.32

Length/Weight Relationship - Weight=0.0155Length^{2.8418}
 $R^2=0.94819$

Table 5. Quality evaluation summary for 2+ Atlantic salmon smolt reared at the Cardigan SEC: 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	372	133	35.8	54	14.5	1	0.3	62	16.7	7	1.9	104	28.0	11	3.0	2.9
Left Pectoral	372	139	37.4	62	16.7	0	0.0	65	17.5	7	1.9	91	24.5	8	2.2	2.7
Dorsal	372	3	0.8	4	1.1	0	0.0	17	4.6	3	0.8	309	83.1	36	9.7	2.0
Right Ventral	372	364	97.8	3	0.8	0	0.0	1	0.3	0	0.0	2	0.5	2	0.5	0.1
Left Ventral	372	361	97.0	0	0.0	2	0.5	0	0.0	4	1.1	4	1.1	1	0.3	0.2
Upper Caudal	372	324	87.1	11	3.0	5	1.3	13	3.5	3	0.8	4	3.1	12	3.2	0.7
Lower Caudal	372	368	98.9	3	0.8	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3	0.1
All Fins Combined																8.7

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	1	0.3	1	0.3
Excellent	72	19.4	73	19.6
Very Good	74	19.9	147	39.5
Good	54	14.5	201	54.0
Poor	144	38.7	345	92.7
Very Poor	27	7.3	372	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	372	15.27	3.61	7.30	26.00
Weight in grams	372	43.30	26.31	4.30	180.40
Condition Factor	372	1.07	0.09	0.78	1.28

Length/Weight Relationship - Weight=0.017450Length^{2.81781}
 $R^2=0.99014$

Table 6. Quality evaluation summary of 2+ Atlantic salmon smolt reared at Mooney's Pond (Cardigan SEC): 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	258	84	32.6	46	17.8	0	0.0	32	12.4	0	0.0	96	37.2	0	0.0	3.1
Left Pectoral	258	109	42.2	25	9.7	0	0.0	33	12.8	0	0.0	91	35.3	0	0.0	2.8
Dorsal	258	36	14.0	39	15.1	11	4.3	21	8.1	26	10.1	77	29.8	48	18.6	1.5
Right Ventral	258	233	90.3	13	5.0	0	0.0	4	1.6	0	0.0	8	3.1	0	0.0	0.3
Left Ventral	258	232	89.9	12	4.7	0	0.0	9	3.5	0	0.0	5	1.9	0	0.0	0.3
Upper Caudal	258	209	81.0	28	10.9	0	0.0	18	7.0	0	0.0	1	0.4	2	0.8	0.8
Lower Caudal	258	258	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0
All Fins Combined																8.0

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	29	11.2	29	11.2
Excellent	59	22.9	88	34.1
Very Good	30	11.6	118	45.7
Good	27	10.5	145	56.2
Poor	61	23.6	206	79.8
Very Poor	52	20.2	258	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	258	16.07	1.66	11.60	24.20
Weight in grams	258	36.87	14.17	14.60	129.70
Condition Factor	258	0.86	0.05	0.75	1.25

Length/Weight Relationship - Weight=0.010315Length^{2.9392}
 $R^2=0.95874$

Table 7. Quality evaluation summary for 2+ Atlantic salmon smolt reared at Profitt's Pond (Cardigan SEC): 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	439	164	37.4	119	27.1	34	7.7	53	12.1	11	2.5	53	12.1	5	1.1	2.2
Left Pectoral	439	221	50.3	102	23.2	11	2.5	47	10.7	6	1.4	52	11.8	0	0.0	1.7
Dorsal	439	47	10.7	79	18.0	9	2.1	70	15.9	50	11.4	109	24.8	75	17.1	1.4
Right Ventral	439	432	98.4	7	1.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0
Left Ventral	439	437	99.5	1	0.2	0	0.0	0	0.0	0	0.0	1	0.2	0	0.0	0.0
Upper Caudal	439	429	97.7	5	1.1	4	0.9	0	0.0	0	0.0	0	0.0	1	0.2	0.1
Lower Caudal	439	439	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0
All Fins Combined																5.5

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	32	7.3	32	7.3
Excellent	128	29.2	160	36.4
Very Good	136	31.0	296	67.4
Good	68	15.5	364	82.9
Poor	73	16.6	437	99.5
Very Poor	2	0.5	439	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	439	15.67	2.07	10.00	24.50
Weight in grams	436	37.42	16.18	9.30	122.80
Condition Factor	436	0.93	0.06	0.76	1.18

Length/Weight Relationship - Weight=0.010633Length^{2.94867}
 $R^2=0.97456$

Table 8. Quality evaluation summary for 1+ Atlantic salmon parr reared at the Charlo SEC: 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	781	636	81.4	44	5.6	10	1.3	51	6.5	23	2.9	2	0.3	15	1.9	0.7
Left Pectoral	781	619	79.3	52	6.7	14	1.8	47	6.0	28	3.6	4	0.5	17	2.2	0.8
Dorsal	781	27	3.5	68	8.7	1	0.1	183	23.4	7	0.9	480	61.5	15	1.9	1.5
Right Ventral	781	777	99.5	0	0.0	0	0.0	3	0.4	0	0.0	1	0.1	0	0.0	0.0
Left Ventral	781	778	99.6	1	0.1	0	0.0	1	0.1	0	0.0	1	0.1	0	0.0	0.0
Upper Caudal	781	668	85.5	75	9.6	10	1.3	15	1.9	9	1.2	2	0.3	2	0.3	0.5
Lower Caudal	781	775	99.2	4	0.5	1	0.1	0	0.0	1	0.1	0	0.0	0	0.0	0.0
All Fins Combined																3.7

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative	Cumulative
			Frequency	Percent
Perfect	70	9.0	70	9.0
Excellent	428	54.8	498	63.8
Very Good	149	19.1	647	82.8
Good	79	10.1	726	93.0
Poor	43	5.5	769	98.5
Very Poor	12	1.5	781	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	781	7.56	1.15	5.20	18.00
Weight in grams	779	5.02	3.35	1.20	62.10
Condition Factor	779	1.06	0.09	0.76	1.62

Length/Weight Relationship - Weight=0.0065Length^{3.23963}
 $R^2=0.96998$

Table 9. Quality evaluation summary of 2+ Atlantic salmon parr reared at the Charlo SEC: 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	200	6	3.0	4	2.0	10	5.0	54	27.0	15	7.5	100	50.0	11	5.5	5.0
Left Pectoral	200	38	19.0	30	5.0	18	9.0	8	4.0	72	36.0	16	8.0	18	9.0	3.6
Dorsal	200	0	0.0	4	2.0	0	0.0	44	22.0	0	0.0	152	76.0	0	0.0	1.7
Right Ventral	200	148	74.0	9	4.5	25	12.5	4	2.0	2	1.0	2	1.0	10	5.0	1.0
Left Ventral	200	52	26.0	10	5.0	9	4.5	10	5.0	29	14.5	74	37.0	16	8.0	3.0
Upper Caudal	200	188	94.0	6	3.0	4	2.0	0	0.0	2	1.0	0	0.0	0	0.0	0.2
Lower Caudal	200	200	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0
All Fins Combined																15.6

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	0	0.0	0	0.0
Very Good	10	5.0	10	5.0
Good	16	8.0	26	13.0
Poor	74	37.0	100	50.0
Very Poor	100	50.0	200	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	200	1.63	1.01	10.50	18.60
Weight in grams	200	46.54	8.19	13.50	70.80
Condition Factor	200	1.08	0.05	0.97	1.21

Length/Weight Relationship - Weight=0.014095Length^{-0.90286}
 $R^2=0.94490$

Table 10. Quality evaluation summary of 2+ Atlantic salmon smolt reared at the Charlo SEC: 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	255	51	20.0	44	17.3	15	5.9	34	13.3	15	5.9	71	27.8	25	9.8	3.7
Left Pectoral	255	83	32.5	28	11.0	15	5.9	23	9.0	16	6.3	56	22.0	34	13.3	3.3
Dorsal	255	0	0.0	9	3.5	3	1.2	38	14.9	4	1.6	196	76.9	5	2.0	1.8
Right Ventral	255	70	27.5	2	0.8	12	4.7	6	2.4	30	11.8	89	34.9	46	18.0	4.2
Left Ventral	255	81	31.8	1	0.4	5	2.0	5	2.0	20	7.8	102	40.0	41	16.1	4.1
Upper Caudal	255	223	87.5	9	3.5	12	4.7	1	0.4	6	2.4	3	1.2	1	0.4	0.6
Lower Caudal	255	246	96.5	2	0.8	4	1.6	0	0.0	0	0.0	1	0.4	2	0.8	0.2
All Fins Combined																17.9

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	14	5.5	14	5.5
Very Good	12	4.7	26	10.2
Good	21	8.2	47	18.4
Poor	40	15.7	87	34.1
Very Poor	168	65.9	255	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	255	15.95	2.03	10.30	25.30
Weight in grams	255	45.53	18.34	11.80	162.40
Condition Factor	255	1.07	0.10	0.34	1.80

Length/Weight Relationship - Weight=0.0136Length^{2.91148}
 $R^2=0.92804$

Table 11. Quality evaluation summary of 1+ Atlantic salmon parr reared at the Margaree SEC: 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	2741	730	26.6	504	18.4	661	24.1	148	5.4	442	16.1	40	1.5	216	7.9	2.8
Left Pectoral	2741	572	20.9	545	19.9	653	23.8	193	7.0	451	16.5	105	3.8	222	8.1	3.0
Dorsal	2741	4	0.1	28	1.0	42	1.5	476	17.4	245	8.9	1676	61.1	270	9.9	1.9
Right Ventral	2741	2416	88.1	66	2.4	23	0.8	67	2.4	69	2.5	8	0.3	92	3.4	0.5
Left Ventral	2741	2632	96.0	17	0.6	8	0.3	13	0.5	17	0.6	2	0.1	52	1.9	0.2
Upper Caudal	2741	2228	81.3	178	6.5	196	7.2	39	1.4	61	2.2	15	0.5	24	0.9	0.8
Lower Caudal	2741	2638	96.2	47	1.7	42	1.5	5	0.2	6	0.2	0	0.0	3	0.1	0.2
All Fins Combined																9.4

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	8	0.3	8	0.3
Excellent	207	7.6	215	7.8
Very Good	633	23.1	848	30.9
Good	734	26.8	1582	57.7
Poor	853	31.1	2435	88.8
Very Poor	306	11.2	2741	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	2741	8.32	1.23	5.10	12.90
Weight in grams	2741	6.36	3.26	1.20	23.00
Condition Factor	2741	1.02	0.10	0.55	2.19

Length/Weight Relationship - Weight=0.006163Length^{3.23690}
 $R^2=0.95890$

Table 12. Quality evaluation summary of 1+ Atlantic salmon parr reared at the Lake O'Law cages (Margaree SEC): 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	100	21	21.0	64	64.0	12	12.0	2	2.0	1	1.0	0	0.0	0	0.0	1.8
Left Pectoral	100	3	3.0	72	72.0	16	16.0	7	7.0	2	2.0	0	0.0	0	0.0	2.3
Dorsal	100	3	3.0	10	10.0	0	0.0	35	35.0	0	0.0	52	52.0	0	0.0	1.4
Right Ventral	100	100	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0
Left Ventral	100	100	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0
Upper Caudal	100	97	97.0	2	2.0	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	0.1
Lower Caudal	100	100	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0
All Fins Combined																5.6

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	9	9.0	9	9.0
Very Good	71	71.0	80	80.0
Good	17	17.0	97	97.0
Poor	3	3.0	100	100.0
Very Poor	0	0.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	100	10.19	1.37	7.50	12.30
Weight in grams	100	11.46	4.60	3.60	21.00
Condition Factor	100	1.01	0.09	0.78	1.25

Length/Weight Relationship - Weight=0.004277Length^{1.37026}
 $R^2=0.97248$

Table 13. Quality evaluation summary of 2+ Atlantic salmon parr reared at the Margaree SEC: 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	99	38	38.4	20	20.2	0	0.0	12	12.1	0	0.0	29	29.3	0	0.0	2.6
Left Pectoral	99	86	86.9	5	5.1	1	1.0	3	3.0	0	0.0	4	4.0	0	0.0	0.5
Dorsal	99	4	4.0	27	27.3	0	0.0	51	51.5	1	1.0	16	16.2	0	0.0	0.9
Right Ventral	99	81	81.8	1	1.0	4	4.0	1	1.0	6	6.1	4	4.0	2	2.0	0.9
Left Ventral	99	82	82.8	1	1.0	2	2.0	2	2.0	1	1.0	8	8.1	3	3.0	0.9
Upper Caudal	99	11	11.1	1	1.0	57	57.6	0	0.0	27	27.3	0	0.0	3	3.0	4.2
Lower Caudal	99	98	99.0	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.1
All Fins Combined																10.0

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	4	4.0	4	4.0
Excellent	2	2.0	6	6.1
Very Good	17	17.2	23	23.2
Good	21	21.2	44	44.4
Poor	44	44.4	88	88.9
Very Poor	11	11.1	99	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	99	19.19	3.21	13.20	27.50
Weight in grams	99	83.87	50.53	27.00	219.90
Condition Factor	99	1.07	0.07	0.89	1.28

Length/Weight Relationship - Weight=0.0141Length^{2.90286}
 $R^2=0.94490$

Table 14. Quality evaluation summary of 2+ Atlantic salmon parr reared at the Lake O'Law cages (Margaree SEC): 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	100	23	23.0	25	25.0	12	12.0	21	21.0	4	4.0	15	15.0	0	0.0	2.8
Left Pectoral	100	35	35.0	21	21.0	37	37.0	6	6.0	0	0.0	1	1.0	0	0.0	1.8
Dorsal	100	1	1.0	17	17.0	0	0.0	53	53.0	0	0.0	28	28.0	1	1.0	1.1
Right Ventral	100	69	69.0	23	23.0	1	1.0	2	2.0	0	0.0	5	5.0	0	0.0	0.9
Left Ventral	100	77	77.0	5	5.0	0	0.0	7	7.0	0	0.0	11	11.0	0	0.0	1.0
Upper Caudal	100	86	86.0	12	12.0	1	1.0	0	0.0	1	1.0	0	0.0	0	0.0	0.5
Lower Caudal	100	94	94.0	5	5.0	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	0.3
All Fins Combined																8.4

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	3	3.0	3	3.0
Excellent	15	15.0	18	18.0
Very Good	23	23.0	41	41.0
Good	22	22.0	63	63.0
Poor	26	26.0	89	89.0
Very Poor	11	11.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	100	17.33	3.21	13.10	26.00
Weight in grams	100	56.85	35.87	21.30	181.00
Condition Factor	100	0.99	0.06	0.77	1.14

Length/Weight Relationship - Weight=0.0108Length^{-0.96861}
 $R^2=0.98545$

Table 15. Quality evaluation summary of 2+ Atlantic salmon smolt reared at the Margaree SEC: 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	480	195	40.6	73	15.2	62	12.9	41	8.5	61	12.7	36	7.5	12	2.5	2.3
Left Pectoral	480	113	23.5	63	13.1	45	9.4	68	14.2	89	18.5	73	15.2	29	6.0	3.4
Dorsal	480	2	0.4	4	0.8	1	0.2	98	20.4	8	1.7	255	53.1	112	23.3	2.0
Right Ventral	480	433	90.2	11	2.3	10	2.1	5	1.0	12	2.5	5	1.0	4	0.8	0.4
Left Ventral	488	471	98.1	2	0.4	0	0.0	5	1.0	1	0.2	1	0.2	0	0.0	0.1
Upper Caudal	480	292	60.8	16	3.3	40	8.3	4	0.8	36	7.5	22	4.6	70	14.6	2.4
Lower Caudal	480	478	99.6	1	0.2	1	0.2	0	0.0	0	0.0	0	0.0	0	0.0	0.0
All Fins Combined																10.6

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	2	0.4	2	0.4
Excellent	34	7.1	36	7.5
Very Good	65	13.5	101	21.0
Good	124	25.8	225	46.9
Poor	179	37.3	404	84.2
Very Poor	76	15.8	480	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	480	15.57	2.92	8.40	25.80
Weight in grams	480	42.66	26.81	4.90	171.90
Condition Factor	480	1.03	0.09	0.75	1.46

Length/Weight Relationship - Weight=0.014512Length^{2.87334}
 $R^2=0.97345$

Table 16. Quality evaluation summary of 2+ Atlantic salmon smolt reared at the Lake O'Law cages (Margaree SEC): 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	525	110	21.0	224	42.7	62	11.8	57	10.9	32	6.1	39	7.4	1	0.2	2.4
Left Pectoral	525	83	15.8	212	40.4	60	11.4	75	14.3	27	5.1	66	12.6	2	0.4	2.8
Dorsal	525	9	1.7	23	4.4	9	1.7	218	41.5	16	3.0	204	38.9	46	8.8	1.5
Right Ventral	525	450	85.7	62	11.8	0	0.0	9	1.7	1	0.2	3	0.6	0	0.0	0.3
Left Ventral	525	465	88.6	26	5.0	1	0.2	25	4.8	2	0.4	6	1.1	0	0.0	0.4
Upper Caudal	525	491	93.5	18	3.4	0	0.0	7	1.3	8	1.5	1	0.2	0	0.0	0.3
Lower Caudal	525	519	98.9	1	0.2	2	0.4	0	0.0	2	0.4	0	0.0	2	0.4	0.1
All Fins Combined																7.8

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	7	1.3	7	1.3
Excellent	51	9.7	58	11.0
Very Good	193	36.8	251	47.8
Good	118	22.5	369	70.3
Poor	128	24.4	497	94.7
Very Poor	28	5.3	525	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	525	16.05	2.12	10.50	26.80
Weight in grams	525	43.59	19.64	11.50	190.10
Condition Factor	525	1.00	0.08	0.76	1.22

Length/Weight Relationship - Weight=0.012831Length^{2.91038}
 $R^2=0.95935$

Table 17. Quality evaluation summary of 1+ Atlantic salmon parr reared at the Miramichi SEC: 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	970	360	37.1	190	19.6	87	9.0	105	10.8	126	3.0	57	5.9	45	4.6	2.4
Left Pectoral	970	462	47.6	167	7.2	87	9.0	74	7.6	106	0.9	39	4.0	35	3.6	2.0
Dorsal	970	51	5.3	24	2.5	0	0.0	162	16.7	10	1.0	695	71.6	28	2.9	1.7
Right Ventral	970	912	94.0	17	1.8	8	0.8	7	0.7	11	1.1	7	0.7	8	0.8	0.2
Left Ventral	970	871	89.8	11	1.1	7	0.7	19	2.0	8	0.8	45	4.6	9	0.9	0.5
Upper Caudal	970	826	85.2	44	4.5	30	3.1	14	1.4	37	3.8	13	1.3	6	0.6	0.7
Lower Caudal	970	945	97.4	13	1.3	4	0.4	0	0.0	2	0.2	2	0.2	4	0.4	0.2
All Fins Combined																7.7

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative	Cumulative
			Frequency	Percent
Perfect	4	0.4	4	0.4
Excellent	178	18.4	182	18.8
Very Good	251	25.9	433	44.6
Good	203	20.9	636	65.6
Poor	283	29.2	919	94.7
Very Poor	51	5.3	970	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	970	9.77	3.43	5.20	18.50
Weight in grams	970	14.20	15.29	1.50	70.80
Condition Factor	970	1.08	0.09	0.76	1.50

Length/Weight Relationship - Weight=0.010519Length^{3.01203}
 $R^2=0.99324$

Table 18. Quality evaluation summary of 1+ Atlantic salmon smolt reared at the Miramichi SEC: 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	260	98	37.7	22	8.5	2	0.8	65	25.0	7	2.7	35	13.5	31	11.9	3.0
Left Pectoral	260	96	36.9	37	14.2	1	0.4	56	21.5	8	3.1	33	12.7	29	11.2	2.9
Dorsal	260	0	0.0	1	0.4	0	0.0	28	10.8	2	0.8	222	85.4	7	2.7	1.9
Right Ventral	260	241	92.7	0	0.0	3	1.2	2	0.8	2	0.8	8	3.1	4	1.5	0.4
Left Ventral	260	233	89.6	1	0.4	2	0.8	2	0.8	4	1.5	6	2.3	12	4.6	0.6
Upper Caudal	260	228	87.7	6	2.3	2	0.8	8	3.1	0	0.0	12	4.6	4	1.5	0.7
Lower Caudal	260	254	97.7	5	1.9	0	0.0	0	0.0	0	0.0	0	0.0	1	0.4	0.1
All Fins Combined																9.6

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	33	12.7	33	12.7
Very Good	38	14.6	71	27.3
Good	73	28.1	144	55.4
Poor	86	33.1	230	88.5
Very Poor	30	11.5	260	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	260	14.61	1.09	10.40	17.90
Weight in grams	260	34.79	7.98	14.30	63.70
Condition Factor	260	1.10	0.06	0.91	1.48

Length/Weight Relationship - Weight=0.012008Length^{2.96549}
 $R^2=0.93823$

Table 19. Quality evaluation summary of 2+ Atlantic salmon parr reared at the Miramichi SEC: 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	200	0	0.0	2	1.0	0	0.0	48	24.0	0	0.0	149	74.5	1	0.5	5.5
Left Pectoral	200	0	0.0	1	0.5	0	0.0	43	21.5	0	0.0	156	78.0	0	0.0	5.6
Dorsal	200	1	0.5	0	0.0	0	0.0	13	6.5	2	1.0	157	78.5	27	13.5	2.1
Right Ventral	200	156	78.0	5	2.5	0	0.0	10	5.0	2	1.0	13	6.5	14	7.0	1.2
Left Ventral	200	141	70.5	4	2.0	1	0.5	16	8.0	1	0.5	20	10.0	17	8.5	1.6
Upper Caudal	200	176	88.0	8	4.0	1	0.5	9	4.5	1	0.5	3	1.5	2	1.0	0.6
Lower Caudal	200	195	97.5	2	1.0	0	0.0	1	0.5	0	0.0	0	0.0	2	1.0	0.2
All Fins Combined																16.6

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	0	0.0	0	0.0
Very Good	0	0.0	0	0.0
Good	1	0.5	1	0.5
Poor	119	59.5	120	60.0
Very Poor	80	40.0	200	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	200	16.38	2.27	12.60	26.20
Weight in grams	200	48.16	23.86	21.10	190.70
Condition Factor	200	1.03	0.06	0.88	1.20

Length/Weight Relationship - Weight=0.007825Length^{3.09737}
 $R^2=0.97945$

Table 20. Quality evaluation summary of 2+ Atlantic salmon smolt reared at the Miramichi SEC: 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	760	193	25.4	137	18.0	70	9.2	113	14.9	56	7.4	152	20.0	39	5.1	3.2
Left Pectoral	760	205	27.0	131	17.2	76	10.0	132	17.4	43	5.7	139	18.3	34	4.5	3.0
Dorsal	760	12	1.6	15	2.0	6	0.8	68	8.9	55	7.2	485	63.8	119	15.7	2.0
Right Ventral	760	496	65.3	18	2.4	12	1.6	27	3.6	44	5.8	102	13.4	61	8.0	1.9
Left Ventral	760	519	68.3	3	0.4	10	1.3	22	2.9	50	6.6	105	13.8	51	6.7	1.8
Upper Caudal	760	542	71.3	25	3.3	21	2.8	36	4.7	74	9.7	26	3.4	36	4.7	1.6
Lower Caudal	760	678	89.2	18	2.4	4	0.5	11	1.4	11	1.4	15	2.0	23	3.0	0.8
All Fins Combined																14.4

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative	Cumulative
			Frequency	Percent
Perfect	3	0.4	3	0.3
Excellent	38	5.0	41	5.4
Very Good	103	13.6	144	18.9
Good	147	19.3	291	38.3
Poor	171	22.5	462	60.8
Very Poor	298	39.2	760	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	760	14.46	4.13	5.90	28.80
Weight in grams	760	38.86	27.67	1.90	219.90
Condition Factor	760	1.06	0.08	0.82	1.33

Length/Weight Relationship - Weight=0.013060Length^{2.91936}
 $R^2=0.99562$

Table 21. Quality evaluation summary of 2+ Atlantic salmon parr reared at the Heath Steele Lake cage (Miramichi SEC): 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	80	66	82.5	12	15.0	2	2.5	0	0.0	0	0.0	0	0.0	0	0.0	0.4
Left Pectoral	80	49	61.3	26	32.5	5	6.3	0	0.0	0	0.0	0	0.0	0	0.0	0.8
Dorsal	80	14	17.5	21	26.3	0	0.0	31	38.5	0	0.0	14	17.5	0	0.0	0.7
Right Ventral	80	80	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0
Left Ventral	80	80	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0
Upper Caudal	80	79	98.8	1	1.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0
Lower Caudal	80	80	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0
All Fins Combined																2.0

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	20	25.0	20	25.0
Excellent	40	50.0	60	75.0
Very Good	20	25.0	80	100.0
Good	0	0.0	80	100.0
Poor	0	0.0	80	100.0
Very Poor	0	0.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	80	16.03	1.62	9.60	18.70
Weight in grams	80	39.13	9.55	8.20	59.40
Condition Factor	80	0.93	0.06	0.77	1.18

Length/Weight Relationship - Weight=0.009626Length^{1.98489}
 $R^2=0.96472$

Table 22. Quality evaluation summary of 2+ Atlantic salmon smolt reared at the Vernon Goodfellow's Pond (Miramichi SEC): 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	80	71	88.8	6	7.5	0	0.0	2	2.5	0	0.0	1	1.3	0	0.0	0.3
Left Pectoral	80	63	78.8	14	17.5	0	0.0	3	3.8	0	0.0	0	0.0	0	0.0	0.5
Dorsal	80	3	3.8	36	45.0	0	0.0	31	38.8	0	0.0	10	12.5	0	0.0	0.6
Right Ventral	80	77	96.3	2	2.5	0	0.0	1	1.3	0	0.0	0	0.0	0	0.0	0.1
Left Ventral	80	79	98.8	1	1.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0
Upper Caudal	80	80	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0
Lower Caudal	80	80	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0
All Fins Combined																1.6

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative	Cumulative
			Frequency	Percent
Perfect	29	36.3	29	36.3
Excellent	38	47.5	67	83.8
Very Good	12	15.0	79	98.8
Good	1	1.3	80	100.0
Poor	0	0.0	80	100.0
Very Poor	0	0.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	80	17.30	1.18	13.20	20.50
Weight in grams	80	46.60	8.15	25.40	70.00
Condition Factor	80	0.89	0.06	0.77	1.10

Length/Weight Relationship - Weight=0.037266Length^{2.49795}
 $R^2=0.91385$

Table 23. Quality evaluation summary of 2+ Atlantic salmon smolt reared at the Gulf Region SECs: 1989-1993.**SUMMARY OF FIN SCORES FOR FISH SAMPLED**

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	2111	554	26.2	268	12.7	97	4.6	385	18.2	115	5.4	589	27.9	103	4.9	3.4
Left Pectoral	2111	531	25.2	292	13.8	109	5.2	349	16.5	199	9.4	511	24.2	120	5.7	3.4
Dorsal	2111	7	0.3	31	1.5	1	0.0	289	13.7	16	0.8	1541	73.0	226	10.7	1.9
Right Ventral	2111	1617	76.6	59	2.8	49	2.3	46	2.2	47	2.2	193	9.1	100	4.7	1.2
Left Ventral	2111	1610	76.3	25	1.2	20	0.9	48	2.3	53	2.5	265	12.6	90	4.3	1.3
Upper Caudal	2111	1646	78.0	76	3.6	65	3.1	60	2.8	89	4.2	61	2.9	114	5.4	1.3
Lower Caudal	2111	2016	95.5	31	1.5	5	0.2	12	0.6	9	0.4	13	0.6	25	1.2	0.3
All Fins Combined																12.9

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	6	0.3	6	0.3
Excellent	174	8.2	180	8.5
Very Good	229	10.8	409	19.4
Good	331	15.7	740	35.1
Poor	740	35.1	1480	70.1
Very Poor	631	29.9	2111	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	2111	15.51	2.66	7.30	26.20
Weight in grams	2111	42.36	22.36	4.30	190.70
Condition Factor	2111	1.06	0.08	0.75	1.48

Length/Weight Relationship - Weight=0.015834Length^{2.84996}
 $R^2=0.97914$

Table 24. Quality evaluation summary of 2+ Atlantic salmon smolt reared at the Gulf Region Lake cages: 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	705	197	27.9	300	42.6	76	10.8	59	8.4	33	4.7	39	5.5	1	0.1	2.1
Left Pectoral	705	135	19.1	310	44.0	81	11.5	82	11.6	29	4.1	66	9.4	2	0.3	2.5
Dorsal	705	26	3.7	54	7.7	9	1.3	284	40.3	16	2.3	270	38.3	46	6.5	1.4
Right Ventral	705	630	89.4	62	8.8	0	0.0	9	1.3	1	0.1	3	0.4	0	0.0	0.3
Left Ventral	705	645	91.5	26	3.7	1	0.1	25	3.5	2	0.3	6	0.9	0	0.0	0.3
Upper Caudal	705	667	94.6	21	3.0	0	0.0	8	1.1	8	1.1	1	0.1	0	0.0	0.2
Lower Caudal	705	669	99.1	1	0.1	2	0.3	0	0.0	1	0.1	0	0.0	2	0.3	0.1
All Fins Combined																6.8

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	27	3.8	27	3.8
Excellent	100	14.2	127	18.0
Very Good	284	40.3	411	58.0
Good	135	19.1	546	77.4
Poor	131	18.6	677	96.0
Very Poor	28	4.0	705	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	705	15.22	2.84	7.50	26.80
Weight in grams	705	38.53	20.58	3.60	190.10
Condition Factor	705	1.00	0.08	0.76	1.25

Length/Weight Relationship - Weight=0.010586Length^{2.97629}
 $R^2=0.98181$

Table 25. Quality evaluation summary of 2+ Atlantic salmon smolt reared at the Gulf Region Semi-natural Ponds: 1989-1993.

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	0		1E		1R		2E		2R		3E		3R		Mean Weighted Score
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Right Pectoral	777	319	41.1	171	22.0	34	4.4	87	11.1	11	1.4	150	19.3	5	0.6	2.3
Left Pectoral	777	393	50.6	141	18.1	11	1.4	83	10.7	6	0.8	143	18.4	0	0.0	2.0
Dorsal	777	86	11.1	154	19.8	20	2.6	122	15.7	122	15.7	76	9.8	123	15.8	1.4
Right Ventral	777	742	95.5	22	2.8	0	0.0	5	0.6	0	0.0	8	1.0	0	0.0	0.1
Left Ventral	777	748	96.3	14	1.8	0	0.0	9	1.2	0	0.0	6	0.8	0	0.0	0.1
Upper Caudal	777	718	92.4	33	4.2	4	0.5	18	2.3	0	0.0	1	0.1	3	0.4	0.3
Lower Caudal	777	777	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0
All Fins Combined																6.2

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	90	11.6	90	11.6
Excellent	225	29.0	315	40.5
Very Good	178	22.9	493	63.4
Good	96	12.4	589	75.8
Poor	134	17.2	723	93.1
Very Poor	54	6.9	777	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std Deviation	Minimum	Maximum
Forklength in cm.	777	15.97	1.92	10.00	24.50
Weight in grams	774	38.18	15.14	9.30	129.70
Condition Factor	774	0.90	0.06	0.75	1.25

Length/Weight Relationship - Weight=0.011947Length^{2.89681}
 $R^2=0.96159$

APPENDICES**A. 1989 Gulf Region parr/smolt quality evaluation**

- i. 1-5 Cardigan SEC results
- ii. 1-2 Charlo SEC results
- iii. 1-9 Margaree SEC results
- iv. 1-4 Miramichi SEC results

B. 1990 Gulf Region parr/smolt quality evaluation

- i. 1-5 Cardigan SEC results
- ii. 1-2 Charlo SEC results
- iii. 1-9 Margaree SEC results
- iv. 1-6 Miramichi SEC results

C. 1991 Gulf Region parr/smolt quality evaluation

- i. 1-7 Cardigan SEC results
- ii. 1-2 Charlo SEC results
- iii. 1-13 Margaree SEC results
- iv. 1-7 Miramichi SEC results

D. 1992 Gulf Region parr/smolt quality evaluation

- i. 1-6 Cardigan SEC results
- ii. 1-2 Charlo SEC results
- iii. 1-7 Margaree SEC results
- iv. 1-5 Miramichi SEC results

E. 1993 Gulf Region parr/smolt quality evaluation

- i. 1-4 Cardigan SEC results
- ii. 1-4 Charlo SEC results
- iii. 1-6 Margaree SEC results
- iv. 1-6 Miramichi SEC results

A.i.1

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Cardigan SEC
 SAMPLING DATE - May 10, 1989
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Miramichi/Morell Kelt
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	35 35.0	11 11.0	2 2.0	14 14.0	11 11.0	22 22.0	5 5.0	3.1
Left Pectoral	100	34 34.0	7 7.0	6 6.0	10 10.0	15 15.0	13 13.0	15 15.0	3.3
Dorsal	100	1 1.0	6 6.0	0 0.0	22 22.0	3 3.0	61 61.0	7 7.0	1.7
Right Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	100	99 99.0	0 0	0 0	1 1.0	0 0	0 0	0 0	0.0
Upper Caudal	100	76 76.0	12 12.0	3 3.0	4 4.0	5 5.0	0 0	0 0	1.0
Lower Caudal	100	97 97.0	1 1.0	0 0	0 0	2 2.0	0 0	0 0	0.2
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	9.3

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	11	11.1	11	11.0
Very Good	16	16.0	27	27.0
Good	26	26.0	53	53.0
Poor	38	38.0	91	91.0
Very Poor	9	9.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	7.95	1.03	5.90	10.90
Weight in grams	100	5.55	2.31	2.20	13.90
Condition Factor	100	1.05	0.08	0.85	1.36

Length/Weight Relationship - Weight=0.01006Length^{3.01978}
 $R^2=0.95923$

A.i.2

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Cardigan SEC
 SAMPLING DATE - May 10, 1989
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Morell Salmon
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	8 8.0	8 8.0	8 8.0	11 11.0	25 25.0	4 4.0	36 36.0	4.9
Left Pectoral	100	19 19.0	2 2.0	7 7.0	6 6.0	28 28.0	4 4.0	34 34.0	4.5
Dorsal	100	1 1.0	6 6.0	0 0	31 31.0	1 1.0	55 55.0	6 6.0	1.6
Right Ventral	100	98 98.0	2 2.0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	100	89 89.0	2 2.0	0 0	3 3.0	0 0	5 5.0	1 1.0	0.5
Upper Caudal	100	60 60.0	18 18.0	11 11.0	1 1.0	5 5.0	1 1.0	4 4.0	1.7
Lower Caudal	100	89 89.0	2 2.0	2 2.0	0 0	4 4.0	0 0	3 3.0	0.8
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	14.1

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	1	1.0	1	1.0
Excellent	1	1.0	2	2.0
Very Good	8	8.0	10	10.0
Good	13	13.0	23	23.0
Poor	42	42.0	65	65.0
Very Poor	35	35.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	7.51	0.79	6.20	9.60
Weight in grams	100	4.59	1.69	2.20	9.90
Condition Factor	100	1.04	0.13	0.76	1.46

Length/Weight Relationship - Weight=0.007Length^{3.19418}
 $R^2=0.88863$

A.i.3

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Cardigan SEC
 SAMPLING DATE - May 10, 1989
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Morell Grilse
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	IE N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	21 21.0	14 14.0	1 1.0	23 23.0	6 6.0	12 12.0	23 23.0	3.9
Left Pectoral	100	40 40.0	7 7.0	3 3.0	15 15.0	8 8.0	17 17.0	10 10.0	3.0
Dorsal	100	1 1.0	0 0	0 0	9 9.0	13 13.0	44 44.0	33 33.0	2.2
Right Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	100	73 73.0	17 17.0	4 4.0	3 3.0	3 3.0	0 0	0 0	1.0
Lower Caudal	100	97 97.0	2 2.0	0 0	1 1.0	0 0	0 0	0 0	0.2
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	10.2

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	8	8.0	8	8.0
Very Good	12	12.0	20	20.0
Good	20	20.0	40	40.0
Poor	49	49.0	89	89.0
Very Poor	11	11.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	7.27	0.80	5.60	9.50
Weight in grams	100	4.41	1.46	1.60	8.80
Condition Factor	100	1.11	0.09	0.76	1.46

Length/Weight Relationship - Weight=0.01106Length^{2.99978}
 $R^2=0.94242$

A.i.4

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Cardigan SEC
 SAMPLING DATE - May 10, 1989
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Miramichi Kelt
 AGE - 1+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	99	33 33.3	7 7.1	1 1.0	11 11.1	10 10.1	14 14.1	23 23.2	3.6
Left Pectoral	99	36 36.4	10 10.1	0 0	17 17.2	9 9.1	18 18.2	9 9.1	3.1
Dorsal	99	0 0	0 0	0 0	8 8.1	1 1.0	90 90.9	0 0	1.9
Right Ventral	99	54 54.5	1 1.0	1 1.0	10 10.1	11 11.1	11 11.1	11 11.1	2.5
Left Ventral	99	97 98.0	1 1.0	0 0	1 1.0	0 0	0 0	0 0	0.1
Upper Caudal	99	92 92.9	2 2.0	0 0	3 3.0	0 0	2 2.0	0 0	0.4
Lower Caudal	99	97 98.0	2 2.0	0 0	0 0	0 0	0 0	0 0	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	11.6

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	11	11.1	11	11.1
Very Good	6	6.1	17	17.2
Good	19	19.2	36	36.4
Poor	42	42.4	78	78.8
Very Poor	21	21.2	99	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	99	12.69	1.57	9.50	18.00
Weight in grams	99	22.28	8.17	8.90	59.70
Condition Factor	99	1.05	0.08	0.88	1.27

Length/Weight Relationship - Weight=0.02104Length^{2.75258}
 $R^2=0.96080$

A.i.5

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Cardigan SEC
 SAMPLING DATE - May 10, 1989
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - West River
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	84 84.0	9 9.0	0 0	2 2.0	1 1.0	2 2.0	2 2.0	0.6
Left Pectoral	100	81 81.0	11 11.0	0 0	1 1.0	2 2.0	3 3.0	2 2.0	0.7
Dorsal	100	0 0	0 0	0 0	3 3.0	2 2.0	72 72.0	23 23.0	2.2
Right Ventral	100	98 98.0	1 1.0	0 0	0 0	0 0	0 0	1 1.0	0.1
Left Ventral	100	96 96.0	0 0	1 1.0	0 0	0 0	3 3.0	0 0	0.2
Upper Caudal	100	81 81.0	2 2.0	2 2.0	0 0	3 3.0	1 1.0	11 11.0	1.3
Lower Caudal	100	96 96.0	3 3.0	0 0	0 0	0 0	0 0	1 1.0	0.3
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	5.3

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	51	51.0	51	51.0
Very Good	17	17.0	68	68.0
Good	14	14.0	82	82.0
Poor	17	17.0	99	99.0
Very Poor	1	1.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	18.24	2.05	12.70	26.00
Weight in grams	100	67.17	24.72	24.60	180.40
Condition Factor	100	1.07	0.05	0.88	1.26

Length/Weight Relationship - Weight=0.01720Length^{2.83630}
 $R^2=0.97544$

A.ii.1

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Charlo SEC
 SAMPLING DATE - May 3, 1989
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Nepisiguit
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	66 66.0	5 5.0	4 4.0	4 4.0	11 11.0	1 1.0	9 9.0	1.6
Left Pectoral	100	51 51.0	11 11.0	9 9.0	6 6.0	11 11.0	1 1.0	11 11.0	2.1
Dorsal	100	4 4.0	17 17.0	1 1.0	28 28.0	6 6.0	35 35.0	9 9.0	1.4
Right Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	100	59 59.0	32 32.0	3 3.0	3 3.0	2 2.0	1 1.0	0 0	1.4
Lower Caudal	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	6.5

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	6	6.0	6	6.0
Excellent	24	24.0	30	30.0
Very Good	30	30.0	60	60.0
Good	17	17.0	77	77.0
Poor	16	16.0	93	93.0
Very Poor	7	7.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	6.57	0.61	5.20	8.40
Weight in grams	100	2.78	0.96	1.20	6.50
Condition Factor	100	0.95	0.09	0.76	1.21

Length/Weight Relationship - Weight=0.003979Length^{3.45919}
 R²=0.94106

A.ii.2

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Charlo SEC
 SAMPLING DATE - May 3, 1989
 SPECIES - Atlantic salmon
 TYPE OR ORIGIN - Nepisiguit
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	34 34.0	12 12.0	2 2.0	15 15.0	0 0	36 36.0	1 1.0	3.1
Left Pectoral	100	54 54.0	7 7.0	1 1.0	9 9.0	0 0	28 28.0	1 1.0	2.3
Dorsal	100	0 0	9 9.0	3 3.0	31 31.0	4 4.0	48 48.0	5 5.0	1.5
Right Ventral	100	55 55.0	0 0	4 4.0	0 0	22 22.0	4 4.0	15 15.0	2.5
Left Ventral	100	63 63.0	1 1.0	5 5.0	0 0	9 9.0	11 11.0	11 11.0	2.5
Upper Caudal	100	89 89.0	2 2.0	7 7.0	0 0	2 2.0	0 0	0 0	0.5
Lower Caudal	100	99 99.0	1 1.0	0 0	0 0	0 0	0 0	0 0	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	12.0

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	12	12.0	12	12.0
Very Good	10	10.0	22	22.0
Good	18	18.0	40	40.0
Poor	28	28.0	68	68.0
Very Poor	32	32.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	17.66	1.56	12.30	25.30
Weight in grams	100	60.57	17.55	20.30	162.40
Condition Factor	100	1.08	0.05	0.96	1.21

Length/Weight Relationship - Weight=0.013325Length^{2.92486}
 R²=0.96794

A.iii.1

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 26, 1989
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - 3 m. Swede, Main Hatchery
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	35 35.0	17 17.0	18 18.0	7 7.0	17 17.0	1 1.0	5 5.0	2.4
Left Pectoral	100	25 25.0	23 23.0	23 23.0	14 14.0	8 8.0	1 1.0	6 6.0	2.6
Dorsal	100	4 4.0	1 1.0	26 26.0	29 29.0	15 15.0	22 22.0	3 3.0	1.4
Right Ventral	100	98 98.0	2 2.0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	100	94 94.0	1 1.0	5 5.0	0 0	0 0	0 0	0 0	0.2
Lower Caudal	100	69 69.0	22 22.0	8 8.0	0 0	1 1.0	0 0	0 0	1.7
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	8.3

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	16	16.0	16	16.0
Very Good	24	24.0	40	40.0
Good	24	24.0	64	64.0
Poor	26	26.0	90	90.0
Very Poor	10	10.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	8.53	1.46	7.40	10.60
Weight in grams	100	6.42	1.88	3.70	12.60
Condition Factor	100	1.01	0.05	0.85	1.19

Length/Weight Relationship - Weight=0.00648Length^{3.20581}
 $R^2=0.97024$

A.iii.2

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 26, 1989
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - 4.1 m. Swede #7
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	12 12.0	0 0	32 32.0	1 1.0	28 28.0	0 0	27 27.0	4.3
Left Pectoral	100	2 2.0	1 1.0	21 21.0	1 1.0	35 35.0	0 0	40 40.0	5.2
Dorsal	100	0 0	1 1.0	2 2.0	20 20.0	38 38.0	10 10.0	29 29.0	2.1
Right Ventral	100	72 72.0	5 5.0	10 10.0	4 4.0	9 9.0	0 0	0 0	1.0
Left Ventral	100	96 96.0	2 2.0	2 2.0	0 0	0 0	0 0	0 0	0.1
Upper Caudal	100	79 79.0	0 0	17 17.0	0 0	4 4.0	0 0	0 0	0.9
Lower Caudal	100	93 93.0	0 0	7 7.0	0 0	0 0	0 0	0 0	0.4
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	14.0

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	1	1.0	1	1.0
Very Good	9	9.0	10	10.0
Good	13	13.0	23	23.0
Poor	36	36.0	59	59.0
Very Poor	41	41.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	8.14	0.97	6.70	10.60
Weight in grams	100	5.43	2.41	2.50	12.10
Condition Factor	100	0.95	0.10	0.78	1.49

Length/Weight Relationship - Weight=0.004013Length^{3.40910}
 $R^2=0.95551$

A.iii.3

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 26, 1989
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - 4.1 m. Swede #4
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	2 2.0	11 11.0	10 10.0	6 6.0	40 40.0	1 1.0	30 30.0	4.9
Left Pectoral	100	0 0	6 6.0	11 11.0	11 11.0	33 33.0	2 2.0	37 37.0	5.3
Dorsal	100	0 0	1 1.0	1 1.0	39 39.0	9 9.0	49 49.0	1 1.0	1.6
Right Ventral	100	28 28.0	24 24.0	1 1.0	33 33.0	8 8.0	0 0	6 6.0	2.7
Left Ventral	100	90 90.0	5 5.0	0 0	1 1.0	4 4.0	0 0	0 0	0.3
Upper Caudal	100	89 89.0	2 2.0	7 7.0	0 0	2 2.0	0 0	0 0	0.5
Lower Caudal	100	93 93.0	3 3.0	2 2.0	0 0	1 1.0	0 0	1 1.0	0.5
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	15.7

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	0	0	0	0
Very Good	2	2.0	2	2.0
Good	9	9.0	11	11.0
Poor	38	13.8	49	49.0
Very Poor	51	51.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	7.87	0.57	6.90	9.50
Weight in grams	100	4.83	1.35	2.50	9.10
Condition Factor	100	0.97	0.09	0.76	1.21

Length/Weight Relationship - Weight=0.00321 Length^{3.53294}
 $R^2=0.88929$

A.iii.4

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 26, 1989
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - Long pond #8
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	51 51.0	11 11.0	29 29.0	2 2.0	5 5.0	0 0	2 2.0	1.6
Left Pectoral	100	40 40.0	15 15.0	38 38.0	3 3.0	4 4.0	0 0	0 0	1.8
Dorsal	100	0 0	1 1.0	1 1.0	23 23.0	23 23.0	36 36.0	16 16.0	1.9
Right Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	100	99 99.0	0 0	0 0	1 1.0	0 0	0 0	0 0	0.0
Upper Caudal	100	85 85.0	1 1.0	9 9.0	0 0	5 5.0	0 0	0 0	0.7
Lower Caudal	100	99 99.0	0 0	1 1.0	0 0	0 0	0 0	0 0	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	6.0

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	1	1.0	1	1.0
Excellent	24	24.0	25	25.0
Very Good	39	39.0	64	64.0
Good	19	19.0	83	83.0
Poor	16	16.0	99	99.0
Very Poor	1	1.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	8.40	0.92	6.30	11.30
Weight in grams	100	6.46	2.58	2.10	15.50
Condition Factor	100	1.04	0.07	0.84	1.27

Length/Weight Relationship - Weight=0.00570Length^{3.19329}
 $R^2=0.66993$

A.iii.5

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 26, 1989
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - 7.4 m. Circular #4
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	5 5.0	1 1.0	54 54.0	0 0	30 30.0	1 1.0	9 9.0	3.8
Left Pectoral	100	30 30.0	3 3.0	54 54.0	0 0	10 10.0	0 0	3 3.0	2.4
Dorsal	100	0 0	0 0	0 0	7 7.0	32 32.0	20 20.0	41 41.0	2.3
Right Ventral	100	99 99.0	1 1.0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	100	98 98.0	2 2.0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	100	87 87.0	1 1.0	11 11.0	0 0	1 1.0	0 0	0 0	0.5
Lower Caudal	100	95 95.0	0 0	4 4.0	0 0	1 1.0	0 0	0 0	0.3
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	9.5

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	4	4.0	4	4.0
Very Good	14	14.0	18	18.0
Good	35	35.0	53	53.0
Poor	43	43.0	96	96.0
Very Poor	4	4.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	8.19	1.87	7.00	10.70
Weight in grams	100	5.82	2.34	3.10	14.60
Condition Factor	100	1.01	0.08	0.80	1.19

Length/Weight Relationship - Weight=0.004407Length^{3.39411}
 R²=0.95680

A.iii.6

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 26, 1989
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - 11 m. Swede Pond #26
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	38 38.0	7 7.0	38 38.0	2 2.0	14 14.0	0 0	1 1.0	2.1
Left Pectoral	100	32 32.0	16 16.0	37 37.0	9 9.0	4 4.0	0 0	2 2.0	2.1
Dorsal	100	0 0	0 0	3 3.0	18 18.0	41 41.0	27 27.0	11 11.0	1.9
Right Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	100	79 79.0	1 1.0	18 18.0	0 0	2 2.0	0 0	0 0	0.9
Lower Caudal	100	86 86.0	0 0	13 13.0	0 0	1 1.0	0 0	0 0	0.9
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	7.9

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	15	15.0	15	15.0
Very Good	32	32.0	47	47.0
Good	24	24.0	71	71.0
Poor	22	22.0	93	93.0
Very Poor	7	7.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	8.33	0.75	7.20	11.00
Weight in grams	100	6.12	1.97	3.20	15.10
Condition Factor	100	1.03	0.07	0.82	1.20

Length/Weight Relationship - Weight=0.007074Length^{1.17629}
 $R^2=0.93952$

A.iii.7

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 26, 1989
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - 4.1 m Swede #6
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	5 5.0	5 5.0	34 34.0	2 2.0	41 41.0	0 0	13 13.0	4.2
Left Pectoral	100	4 4.0	5 5.0	32 32.0	4 4.0	44 44.0	0 0	11 11.0	4.2
Dorsal	100	0 0	0 0	0 0	42 42.0	11 11.0	42 42.0	5 5.0	1.6
Right Ventral	100	79 79.0	10 10.0	6 6.0	4 4.0	1 1.0	0 0	0 0	0.1
Left Ventral	100	95 95.0	3 3.0	2 2.0	0 0	0 0	0 0	0 0	0.6
Upper Caudal	100	75 75.0	0 0	18 18.0	0 0	4 4.0	1 1.0	2 2.0	1.2
Lower Caudal	100	94 94.0	0 0	2 2.0	1 1.0	1 1.0	0 0	2 2.0	0.5
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	12.4

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	2	2.0	2	2.0
Very Good	7	7.0	9	9.0
Good	20	20.0	29	29.0
Poor	52	52.0	81	81.0
Very Poor	19	19.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	8.36	0.97	7.2	11.50
Weight in grams	100	6.15	2.63	2.80	16.10
Condition Factor	100	1.00	0.08	0.75	1.18

Length/Weight Relationship - Weight=0.005138Length^{3.31286}
 $R^2=0.96501$

A.iii.8

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 27, 1989
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - 11 m. Swede #28
 AGE - 2+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	99	38 38.4	20 20.2	0 0	12 12.1	0 0	29 29.3	0 0	2.6
Left Pectoral	99	86 86.9	5 5.0	1 1.0	3 3.0	0 0	4 4.0	0 0	0.5
Dorsal	99	4 4.0	27 27.3	0 0	51 51.5	1 1.0	16 16.2	0 0	0.9
Right Ventral	99	81 81.8	1 1.0	4 4.0	1 1.0	6 6.1	4 4.0	2 2.0	0.9
Left Ventral	99	82 82.8	1 1.0	2 2.0	2 2.0	1 1.0	8 8.1	3 3.0	0.9
Upper Caudal	99	11 11.1	1 1.0	57 57.6	0 0	27 27.8	0 0	3 3.0	4.2
Lower Caudal	99	98 99.0	1 1.0	0 0	0 0	0 0	0 0	0 0	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	10.0

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	4	4.0	4	4.0
Excellent	2	2.0	6	6.1
Very Good	17	17.2	44	23.2
Good	22	44.4	88	44.4
Poor	44	11.1	99	88.9
Very Poor	11	11.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	99	19.19	3.79	13.20	27.50
Weight in grams	99	83.87	50.53	27.00	219.90
Condition Factor	99	1.07	0.07	0.89	1.28

Length/Weight Relationship - Weight=0.014130Length^{1.90426}
 R²=0.98546

A.iii.9

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 27, 1989
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree Lake-O-Law Cages
 AGE - 2+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	24 24.0	24 24.0	12 12.0	21 21.0	4 4.0	15 15.0	0 0	2.8
Left Pectoral	100	35 35.0	21 21.0	37 37.0	6 6.0	0 0	1 1.0	0 0	1.8
Dorsal	100	1 1.0	17 17.0	0 0	52 52.0	0 0	29 29.0	1 1.0	1.1
Right Ventral	100	69 69.0	23 23.0	1 1.0	2 2.0	0 0	5 5.0	0 0	0.9
Left Ventral	100	77 77.0	5 5.0	0 0	7 7.0	0 0	11 11.0	0 0	1.0
Upper Caudal	100	86 86.0	12 12.0	1 1.0	0 0	1 1.0	0 0	0 0	0.5
Lower Caudal	100	94 94.0	5 5.0	1 1.0	0 0	0 0	0 0	0 0	0.3
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	8.4

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	3	3.0	3	3.0
Excellent	15	15.0	18	18.0
Very Good	23	23.0	41	41.0
Good	22	22.0	63	63.0
Poor	26	26.0	89	89.0
Very Poor	11	11.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	17.36	3.18	13.10	26.00
Weight in grams	100	57.01	35.76	21.30	181.00
Condition Factor	100	0.99	0.06	0.77	1.14

Length/Weight Relationship - Weight=0.010634Length^{2.97339}
 $R^2=0.98522$

A.iv.1

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - May 02, 1989
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - NW Miramichi - Tank #15
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	5 5.0	5 5.0	15 15.0	13 13.0	34 34.0	10 10.0	18 18.0	4.6
Left Pectoral	100	14 14.0	7 7.0	23 23.0	4 4.0	29 29.0	11 11.0	12 12.0	3.9
Dorsal	100	2 2.0	7 7.0	0 0	12 12.0	4 4.0	67 67.0	8 8.0	1.8
Right Ventral	100	99 99.0	0 0	0 0	0 0	0 0	0 0	1 1.0	0.1
Left Ventral	100	99 99.0	0 0	0 0	0 0	0 0	1 1.0	0 0	0.1
Upper Caudal	100	89 89.0	4 4.0	1 1.0	3 3.0	2 2.0	1 1.0	0 0	0.5
Lower Caudal	100	94 94.0	5 5.0	0 0	0 0	1 1.0	0 0	0 0	0.3
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	11.3

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	0	0	0	0
Very Good	9	9.0	9	9.0
Good	21	21.0	30	30.0
Poor	56	56.0	86	86.0
Very Poor	14	14.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	8.14	1.02	6.20	11.70
Weight in grams	100	6.15	2.55	2.40	16.80
Condition Factor	100	1.08	0.06	0.86	1.23

Length/Weight Relationship - Weight=0.00789Length^{1.5064}
 R²=0.97967

A.iv.2

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - May 02, 1989
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - SW Miramichi Advanced
 AGE - 1+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	21 21.0	11 11.0	23 23.0	14 14.0	24 24.0	1 1.0	6 6.0	3.2
Left Pectoral	100	30 30.0	8 8.0	28 28.0	6 6.0	24 24.0	1 1.0	3 3.0	2.7
Dorsal	100	0 0	2 2.0	0 0	21 21.0	2 2.0	70 70.0	5 5.0	1.8
Right Ventral	100	94 94.0	1 1.0	2 2.0	2 2.0	0 0	1 1.0	0 0	0.2
Left Ventral	100	96 96.0	1 1.0	2 2.0	1 1.0	0 0	0 0	0 0	0.1
Upper Caudal	100	89 89.0	7 7.0	3 3.0	0 0	1 1.0	0 0	0 0	0.4
Lower Caudal	100	97 97.0	3 3.0	0 0	0 0	0 0	0 0	0 0	0.2
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	8.5

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	10	10.0	10	10.0
Very Good	23	23.0	33	33.0
Good	23	23.0	56	56.0
Poor	39	39.0	95	95.0
Very Poor	5	5.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	13.30	2.20	10.30	18.50
Weight in grams	100	28.23	13.54	13.20	70.80
Condition Factor	100	1.12	0.07	0.87	1.29

Length/Weight Relationship - Weight=0.018357Length^{2.80871}
 $R^2=0.98630$

A.iv.3

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - May 03, 1989
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - NW Miramichi - Dirt pond 2
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	IE N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	16 16.0	16 16.0	15 15.0	17 17.0	14 14.0	13 13.0	9 9.0	3.6
Left Pectoral	100	15 15.0	17 17.0	12 12.0	24 24.0	10 10.0	13 13.0	9 9.0	3.6
Dorsal	100	2 2.0	3 3.0	3 3.0	6 6.0	19 19.0	29 29.0	38 38.0	2.2
Right Ventral	100	98 98.0	0 0	1 1.0	0 0	0 0	1 1.0	0 0	0.1
Left Ventral	100	96 96.0	1 1.0	0 0	0 0	0 0	3 3.0	0 0	0.2
Upper Caudal	100	90 90.0	1 1.0	5 5.0	1 1.0	2 2.0	0 0	1 1.0	0.5
Lower Caudal	100	98 98.0	2 2.0	0 0	0 0	0 0	0 0	0 0	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	10.2

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	1	1.0	1	1.0
Very Good	17	17.0	18	18.0
Good	35	35.0	53	53.0
Poor	37	37.0	90	90.0
Very Poor	10	10.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	17.29	3.04	13.40	28.80
Weight in grams	100	58.13	37.18	25.20	219.10
Condition Factor	100	1.03	0.06	0.88	1.17

Length/Weight Relationship - Weight=0.010687Length^{1.98514}
 R²=0.98558

A.iv.4

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - May 03, 1989
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - NW Miramichi - Dirt pond #1
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	99	39 39.4	14 14.1	3 3.0	9 9.1	9 9.1	13 13.1	12 12.1	2.8
Left Pectoral	99	56 56.6	10 10.1	6 6.1	6 6.1	5 5.1	11 11.1	5 5.1	1.9
Dorsal	99	10 10.1	10 10.1	3 3.0	4 4.0	30 30.3	19 19.2	23 23.2	1.8
Right Ventral	99	85 85.9	3 3.0	1 1.0	2 2.0	0 0	3 3.0	5 5.1	0.7
Left Ventral	99	79 79.8	0 0	1 1.0	3 3.0	0 0	13 13.1	3 3.0	1.2
Upper Caudal	99	89 89.9	1 1.0	2 2.0	0 0	6 6.1	0 0	1 1.0	0.6
Lower Caudal	99	98 99.0	1 1.0	0 0	0 0	0 0	0 0	0 0	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	8.9

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	3	3.0	3	3.0
Excellent	17	17.2	20	20.2
Very Good	11	11.1	31	31.3
Good	30	30.3	61	61.6
Poor	29	29.3	90	90.9
Very Poor	9	9.1	99	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	99	17.35	2.59	14.40	25.60
Weight in grams	99	57.84	31.25	29.10	167.50
Condition Factor	99	1.03	0.06	0.90	1.22

Length/Weight Relationship - Weight=0.00998Length^{3.01179}
 $R^2=0.98242$

B.i.1

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Cardigan SEC
 SAMPLING DATE - June 11, 1990
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Morell River
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	22 22.0	11 11.0	1 1.0	25 25.0	3 3.0	31 31.0	7 7.0	3.8
Left Pectoral	100	31 31.0	12 12.0	0 0	27 27.0	4 4.0	21 21.0	5 5.0	3.1
Dorsal	100	2 2.0	1 1.0	0 0	3 3.0	0 0	93 93.0	1 1.0	1.9
Right Ventral	100	98 98.0	0 0	0 0	0 0	0 0	2 2.0	0 0	0.1
Left Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	100	95 95.0	3 3.0	0 0	2 2.0	0 0	0 0	0 0	0.2
Lower Caudal	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	9.1

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	7	7.0	7	7.0
Very Good	20	20.0	27	27.0
Good	23	23.0	50	50.0
Poor	46	46.0	96	96.0
Very Poor	4	4.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	10.34	1.81	7.30	15.70
Weight in grams	100	13.90	7.60	4.30	41.80
Condition Factor	100	1.16	0.07	0.90	1.28

Length/Weight Relationship - Weight=0.014916Length^{2.89214}
 $R^2=0.98542$

B.i.2

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Cardigan SEC
 SAMPLING DATE - May 15, 1990
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Cardigan Smolt
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	92	8 8.7	7 7.6	0 0	18 19.6	0 0	57 62.0	2 2.2	4.8
Left Pectoral	92	11 12.0	8 8.7	0 0	17 18.5	1 1.1	54 58.7	1 1.1	4.6
Dorsal	92	1 1.1	3 3.3	0 0	2 2.2	0 0	80 87.0	6 6.5	2.0
Right Ventral	92	88 95.7	2 2.2	0 0	1 1.1	0 0	0 0	1 1.1	0.2
Left Ventral	92	88 95.7	0 0	1 1.1	0 0	1 1.1	1 1.1	1 1.1	0.2
Upper Caudal	92	70 76.1	6 6.5	3 3.3	9 9.8	0 0	3 3.3	1 1.1	1.1
Lower Caudal	92	92 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	12.8

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	1	1.1	1	1.1
Excellent	3	3.3	4	4.3
Very Good	6	6.5	10	10.9
Good	6	6.5	16	17.4
Poor	58	63.0	74	80.4
Very Poor	18	19.6	92	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	92	16.55	2.02	11.80	24.50
Weight in grams	92	45.68	19.02	16.60	140.70
Condition Factor	92	0.97	0.06	0.78	1.10

Length/Weight Relationship - Weight=0.010816Length^{2.95920}
 R²=0.97126

B.i.3

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Mooney's Pond
 SAMPLING DATE - May 15, 1990
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Morell
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	98	2 2.0	7 7.1	0 0	20 20.4	0 0	69 70.4	0 0	5.2
Left Pectoral	98	4 4.1	5 5.1	0 0	18 18.4	0 0	71 72.4	0 0	5.2
Dorsal	98	2 2.0	16 16.3	0 0	15 15.3	1 1.0	55 56.1	9 9.2	1.6
Right Ventral	98	73 74.5	13 13.3	0 0	4 4.1	0 0	8 8.2	0 0	0.9
Left Ventral	98	72 73.5	12 12.2	0 0	9 9.2	0 0	5 5.1	0 0	0.9
Upper Caudal	98	49 50.0	28 28.6	0 0	18 18.4	0 0	1 1.0	2 2.0	2.0
Lower Caudal	98	98 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	15.8

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	1	1.0	1	1.0
Very Good	3	3.1	4	4.1
Good	5	5.1	9	9.2
Poor	37	37.8	46	46.9
Very Poor	52	53.1	98	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	98	15.52	0.99	13.20	19.20
Weight in grams	98	32.46	6.76	20.10	60.90
Condition Factor	98	0.86	0.05	1.00	10.60

Length/Weight Relationship - Weight=0.009825Length^{2.95038}
 $R^2=0.91422$

B.i.4

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Profitts Pond
 SAMPLING DATE - May 15, 1990
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Morell
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	103	26 25.2	23 22.3	21 20.4	7 6.8	11 10.7	10 9.7	5 4.9	2.8
Left Pectoral	103	71 68.9	5 4.9	6 5.8	9 8.7	5 4.9	7 6.8	0 0	1.3
Dorsal	103	9 8.7	23 22.3	0 0	13 12.6	3 2.9	27 26.2	28 27.2	1.5
Right Ventral	103	97 94.2	6 5.8	0 0	0 0	0 0	0 0	0 0	0.1
Left Ventral	103	102 99.0	0 0	0 0	0 0	0 0	1 1.0	0 0	0.1
Upper Caudal	103	95 92.2	0 0	2 1.9	0 0	0 0	1 1.0	2 2.0	0.3
Lower Caudal	103	103 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	6.1

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	4	3.9	4	3.9
Excellent	28	27.2	32	31.1
Very Good	31	30.1	63	61.2
Good	23	22.3	86	83.5
Poor	15	14.6	101	98.1
Very Poor	2	1.9	103	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	103	16.90	1.44	14.50	23.50
Weight in grams	103	45.49	12.71	27.10	110.40
Condition Factor	103	0.04	0.08	0.83	1.01

Length/Weight Relationship - Weight=0.011386Length^{2.94371}
 $R^2=0.95719$

B.ii.1

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Charlo SEC
 SAMPLING DATE - April 23, 1990
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Nepisiguit 2SW
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	49 49.0	17 17.0	3 3.0	22 22.0	6 6.0	0 0	3 3.0	1.8
Left Pectoral	100	54 54.0	13 13.0	2 2.0	19 19.0	8 8.0	1 1.0	3 3.0	1.8
Dorsal	100	0 0	0 0	0 0	11 11.0	0 0	89 89.0	0 0	1.9
Right Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	100	95 95.0	4 4.0	0 0	1 1.0	0 0	0 0	0 0	0.2
Lower Caudal	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	5.6

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	34	34.0	34	34.0
Very Good	31	31.0	65	65.0
Good	22	22.0	87	87.0
Poor	11	11.0	98	98.0
Very Poor	2	2.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	8.61	1.10	6.60	12.80
Weight in grams	100	7.40	3.49	3.00	23.70
Condition Factor	100	1.09	0.07	0.94	1.27

Length/Weight Relationship - Weight=0.00794Length^{3.14888}
 $R^2=0.97802$

B.ii.2

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Charlo SEC
SAMPLING DATE - April 23, 1990
SPECIES - Atlantic Salmon
TYPE OR ORIGIN - Nepisiguit Early Run
AGE - 2+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	3 3.0	2 2.0	5 5.0	27 27.0	8 8.0	50 50.0	5 5.0	5.0
Left Pectoral	100	19 19.0	15 15.0	9 9.0	4 4.0	36 36.0	8 8.0	9 9.0	3.6
Dorsal	100	0 0	2 2.0	0 0	22 22.0	0 0	76 76.0	0 0	1.7
Right Ventral	100	74 74.0	5 5.0	12 12.0	2 2.0	1 1.0	1 1.0	5 5.0	1.0
Left Ventral	100	26 26.0	5 5.0	5 5.0	5 5.0	14 14.0	37 37.0	8 8.0	3.9
Upper Caudal	100	94 94.0	3 3.0	2 2.0	0 0	1 1.0	0 0	0 0	0.2
Lower Caudal	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	15.6

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	0	0	0	0
Very Good	5	5.0	5	5.0
Good	8	8.0	13	13.0
Poor	37	37.0	50	50.0
Very Poor	50	50.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	16.23	1.01	10.50	18.60
Weight in grams	100	46.54	8.21	13.50	70.80
Condition Factor	100	1.08	0.05	0.97	1.21

Length/Weight Relationship - Weight=0.01409Length^{2.90286}
 $R^2=0.94490$

B.iii.1

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 04, 1990
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - 7.4 m. Circular #5
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	IE N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	26 32.5	41 51.3	6 7.5	3 3.8	4 5.0	0 0	0 0	3.8
Left Pectoral	80	63 78.8	14 17.5	3 3.8	0 0	0 0	0 0	0 0	2.7
Dorsal	80	0 0	0 0	0 0	27 33.8	1 1.3	47 58.8	5 6.3	2.2
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	52 65.0	8 10.0	3 3.8	3 3.8	9 11.3	3 3.8	2 12.5	0.2
Lower Caudal	80	76 95.0	2 2.5	0 0	0 0	0 0	1 1.3	1 1.3	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	10.2

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	7	7.0	7	7.0
Very Good	17	17.0	24	24.0
Good	33	33.0	57	57.0
Poor	34	34.0	91	91.0
Very Poor	9	9.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	9.01	1.05	7.60	12.80
Weight in grams	100	7.97	3.04	4.30	21.90
Condition Factor	100	1.05	0.05	0.91	1.20

Length/Weight Relationship - Weight=0.011021Length^{2.97597}
 $R^2=0.97542$

B.iii.2

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 04, 1990
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - 4.1 m. Swede #1
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	26 32.5	41 51.3	6 7.5	3 3.8	4 5.0	0 0	0 0	0.3
Left Pectoral	80	63 78.8	14 17.5	3 3.8	0 0	0 0	0 0	0 0	2.8
Dorsal	80	0 0	0 0	0 0	27 33.8	1 1.3	47 58.8	5 6.3	2.0
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	5.4
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.2
Upper Caudal	80	52 65.0	8 10.0	3 3.8	3 3.8	9 11.3	3 3.8	2 12.5	0.9
Lower Caudal	80	76 95.0	2 2.5	0 0	0 0	0 0	1 1.3	1 1.3	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	11.5

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	3	3.0	3	3.0
Very Good	4	4.0	7	7.0
Good	22	22.0	29	29.0
Poor	59	59.0	88	98.0
Very Poor	12	12.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	9.33	1.26	7.70	12.90
Weight in grams	100	9.30	3.89	4.80	22.70
Condition Factor	100	1.09	0.06	0.98	1.25

Length/Weight Relationship - Weight=0.011932Length^{2.95743}
 $R^2=0.98341$

B.iii.3

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 01, 1990
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - 3 m. Swede #2, Main hatchery
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	IE N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	26 32.5	41 51.3	6 7.5	3 3.8	4 5.0	0 0	0 0	1.4
Left Pectoral	80	63 78.8	14 17.5	3 3.8	0 0	0 0	0 0	0 0	1.7
Dorsal	80	0 0	0 0	0 0	27 33.8	1 1.3	47 58.8	5 6.3	2.5
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	52 65.0	8 10.0	3 3.8	3 3.8	9 11.3	3 3.8	2 12.5	0.7
Lower Caudal	80	76 95.0	2 2.5	0 0	0 0	0 0	1 1.3	1 1.3	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	6.3

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	29	29.0	29	29.0
Very Good	28	28.0	57	57.0
Good	25	25.0	82	82.0
Poor	17	17.0	99	99.0
Very Poor	1	1.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	8.61	1.08	7.30	12.30
Weight in grams	100	6.89	3.27	3.70	20.10
Condition Factor	100	1.02	0.07	0.86	1.18

Length/Weight Relationship - Weight=0.008040Length^{3.11053}
 $R^2=0.96192$

B.iii.4

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 01, 1990
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Long pond #5
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	26 32.5	41 51.3	6 7.5	3 3.8	4 5.0	0 0	0 0	3.9
Left Pectoral	80	63 78.8	14 17.5	3 3.8	0 0	0 0	0 0	0 0	4.5
Dorsal	80	0 0	0 0	0 0	27 33.8	1 1.3	47 58.8	5 6.3	2.1
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	52 65.0	8 10.0	3 3.8	3 3.8	9 11.3	3 3.8	2 12.5	0.8
Lower Caudal	80	76 95.0	2 2.5	0 0	0 0	0 0	1 1.3	1 1.3	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	11.3

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative	Cumulative
			Frequency	Percent
Perfect	0	0.0	0	0.0
Excellent	1	1.0	1	1.0
Very Good	11	11.0	12	12.0
Good	23	23.0	35	35.0
Poor	50	50.0	85	85.0
Very Poor	15	15.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	6.72	0.57	5.20	7.90
Weight in grams	100	2.99	0.89	1.20	5.20
Condition Factor	100	0.96	0.08	0.76	1.11

Length/Weight Relationship - Weight=0.003857Length^{1.47554}
 R²=0.93530

B.iii.5

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 01, 1990
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - Hot house long ponds
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	26 32.5	41 51.3	6 7.5	3 3.8	4 5.0	0 0	0 0	3.6
Left Pectoral	80	63 78.8	14 17.5	3 3.8	0 0	0 0	0 0	0 0	4.6
Dorsal	80	0 0	0 0	0 0	27 33.8	1 1.3	47 58.8	5 6.3	1.9
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	52 65.0	8 10.0	3 3.8	3 3.8	9 11.3	3 3.8	2 12.5	0.9
Lower Caudal	80	76 95.0	2 2.5	0 0	0 0	0 0	1 1.3	1 1.3	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	11.1

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	2	2.0	2	2.0
Very Good	19	19.0	21	21.0
Good	13	13.0	34	34.0
Poor	55	55.0	89	89.0
Very Poor	11	11.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	6.84	0.60	5.40	8.90
Weight in grams	100	3.29	1.04	1.50	7.30
Condition Factor	100	1.00	0.09	0.76	1.19

Length/Weight Relationship - Weight=0.005849Length^{3.27631}
 $R^2=0.91108$

B.iii.6

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 03, 1990
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree Parr
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	60 60.0	4 4.0	17 17.0	5 5.0	12 12.0	0 0	2 2.0	1.5
Left Pectoral	100	15 15.0	9 9.0	25 25.0	5 5.0	33 33.0	10 10.0	3 3.0	3.6
Dorsal	100	0 0	0 0	0 0	6 6.0	0 0	88 88.0	6 6.0	2.0
Right Ventral	100	98 98.0	0 0	1 1.0	1 1.0	0 0	0 0	0 0	0.1
Left Ventral	100	100 100	0 0	0 0	5 5.0	0 0	1 1.0	0 0	0.0
Upper Caudal	100	77 77.0	8 8.0	11 11.0	0 0	4 4.0	0 0	0 0	0.9
Lower Caudal	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	8.1

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	12	12.0	12	12.0
Very Good	20	20.0	32	32.0
Good	33	33.0	65	65.0
Poor	33	33.0	98	98.0
Very Poor	2	2.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	8.85	1.06	7.30	11.30
Weight in grams	100	7.34	2.81	3.80	14.60
Condition Factor	100	1.01	0.05	0.87	1.20

Length/Weight Relationship - Weight=0.010976Length^{2.98648}
 R²=0.97801

B.iii.7

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 01, 1990
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree/Cobequid
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	48 48.0	2 2.0	22 22.0	8 8.0	11 11.0	6 6.0	3 3.0	2.1
Left Pectoral	100	15 15.0	11 1.0	17 17.0	4 4.0	34 34.0	17 17.0	12 12.0	4.3
Dorsal	100	0 0	2 2.0	0 0	7 7.0	0 0	90 90.0	1 1.0	1.9
Right Ventral	100	72 72.0	4 4.0	8 8.0	1 1.0	12 12.0	0 0	3 3.0	1.2
Left Ventral	100	99 99.0	0 0	0 0	0 0	1 1.0	0 0	0 0	0.1
Upper Caudal	100	57 57.0	3 3.0	12 12.0	1 1.0	4 4.0	12 12.0	11 11.0	2.6
Lower Caudal	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	12.1

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	1	1.0	1	1.0
Very Good	13	13.0	14	14.0
Good	21	21.0	35	35.0
Poor	42	42.0	77	77.0
Very Poor	23	23.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	15.88	1.37	10.70	22.10
Weight in grams	100	39.68	10.69	13.20	100.60
Condition Factor	100	0.97	0.07	0.77	1.17

Length/Weight Relationship - Weight=0.020815Length^{2.72433}
 $R^2=0.92324$

B.iii.8

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 01, 1990
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree Smolt
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	67 67.0	16 16.0	4 4.0	6 6.0	6 6.0	1 1.0	0 0	1.0
Left Pectoral	100	59 59.0	12 12.0	5 5.0	10 10.0	9 9.0	5 5.0	0 0	1.5
Dorsal	100	1 1.0	2 2.0	1 1.0	8 8.0	5 5.0	54 54.0	29 29.0	2.1
Right Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	100	93 93.0	1 1.0	0 0	5 5.0	0 0	1 1.0	0 0	0.3
Upper Caudal	100	16 16.0	1 1.0	18 18.0	2 2.0	22 22.0	3 3.0	38 38.0	5.4
Lower Caudal	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	10.4

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	1	1.0	1	1.0
Excellent	12	12.0	13	13.0
Very Good	3	3.0	16	16.0
Good	24	24.0	40	40.0
Poor	45	45.0	85	85.0
Very Poor	15	15.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	18.14	3.72	10.70	25.80
Weight in grams	100	67.15	42.51	13.70	171.90
Condition Factor	100	1.00	0.07	0.75	1.19

Length/Weight Relationship - Weight=0.012385Length^{2.92592}
 $R^2=0.98676$

B.iii.9

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 04, 1990
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Lake-O-Law Cages
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	54 54.0	11 11.0	30 30.0	2 2.0	3 3.0	0 0	0 0	1.4
Left Pectoral	100	39 39.0	11 11.0	39 39.0	2 2.0	8 8.0	1 1.0	0 0	1.9
Dorsal	100	8 8.0	7 7.0	9 9.0	13 13.0	14 14.0	29 29.0	20 20.0	1.7
Right Ventral	100	87 87.0	13 13.0	0 0	0 0	0 0	0 0	0 0	0.3
Left Ventral	100	94 94.0	3 3.0	0 0	3 3.0	0 0	0 0	0 0	0.2
Upper Caudal	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Lower Caudal	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	5.4

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	6	6.0	6	6.0
Excellent	24	24.0	30	30.0
Very Good	40	40.0	70	70.0
Good	17	17.0	87	87.0
Poor	13	13.0	100	100.0
Very Poor	0	0	0	0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	16.34	2.86	11.80	26.80
Weight in grams	100	48.47	29.79	16.50	190.10
Condition Factor	100	1.02	0.06	0.86	1.16

Length/Weight Relationship - Weight=0.012343Length^{2.91999}
 $R^2=0.98528$

B.iv.1

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - April 26, 1990
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - N.W. Miramichi
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	24 24.0	15 15.0	0 0	29 29.0	12 12.0	13 13.0	7 7.0	3.3
Left Pectoral	100	35 35.0	16 16.0	3 3.0	17 17.0	11 11.0	9 9.0	9 9.0	2.8
Dorsal	100	0 0	3 3.0	0 0	18 18.0	0 0	76 76.0	3 3.0	1.8
Right Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	100	97 97.0	0 0	0 0	2 2.0	0 0	1 1.0	0 0	0.1
Upper Caudal	100	94 94.0	2 2.0	0 0	1 1.0	0 0	3 3.0	0 0	0.3
Lower Caudal	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	8.4

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	13	13.0	13	13.0
Very Good	22	22.0	35	35.0
Good	23	23.0	58	58.0
Poor	40	40.0	98	98.0
Very Poor	2	2.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	7.77	0.82	6.10	10.40
Weight in grams	100	5.38	1.90	2.00	12.30
Condition Factor	100	1.10	0.07	0.88	1.28

Length/Weight Relationship - Weight=0.007942Length^{3.16041}
 $R^2=0.96424$

B.iv.2

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - April 26, 1990
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Dungarvon
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	IE N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	81 81.0	4 4.0	0 0	9 9.0	1 1.0	4 4.0	1 1.0	0.8
Left Pectoral	100	65 65.0	13 13.0	0 0	13 13.0	6 6.0	1 1.0	2 2.0	1.3
Dorsal	100	47 47.0	3 3.0	0 0	10 10.0	0 0	38 38.0	2 2.0	0.9
Right Ventral	100	99 99.0	0 0	0 0	1 1.0	0 0	0 0	0 0	0.0
Left Ventral	100	50 50.0	2 2.0	0 0	12 12.0	0 0	35 35.0	1 1.0	2.7
Upper Caudal	100	93 93.0	4 4.0	0 0	2 2.0	0 0	1 1.0	0 0	0.3
Lower Caudal	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	6.0

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	2	2.0	2	2.0
Excellent	41	41.0	43	43.0
Very Good	6	6.0	49	49.0
Good	21	21.0	70	70.0
Poor	30	30.0	100	100.0
Very Poor	0	0	0	0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	7.96	0.81	6.10	10.90
Weight in grams	100	5.79	1.83	2.40	13.00
Condition Factor	100	1.12	0.16	1.00	1.25

Length/Weight Relationship - Weight=0.01474Length^{2.86489}
 R²=0.90112

B.iv.3

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - April 26, 1990
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Rocky Brook Accellerated
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	50 50.0	6 6.0	0 0	11 11.0	3 3.0	23 23.0	7 7.0	2.6
Left Pectoral	100	43 43.0	15 15.0	0 0	11 11.0	4 4.0	20 20.0	7 7.0	2.6
Dorsal	100	0 0	1 1.0	0 0	19 19.0	2 2.0	75 75.0	3 3.0	1.8
Right Ventral	100	88 88.0	0 0	2 2.0	1 1.0	2 2.0	4 4.0	3 3.0	0.7
Left Ventral	100	83 83.0	0 0	2 2.0	1 1.0	4 4.0	3 3.0	7 7.0	1.0
Upper Caudal	100	95 95.0	0 0	2 2.0	2 2.0	0 0	1 1.0	0 0	0.3
Lower Caudal	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	8.9

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	19	19.0	19	19.0
Very Good	14	14.0	33	33.0
Good	25	25.0	58	58.0
Poor	35	35.0	93	93.0
Very Poor	7	7.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	15.22	1.24	10.40	17.90
Weight in grams	100	40.75	8.31	14.30	63.70
Condition Factor	100	1.13	0.06	1.03	1.48

Length/Weight Relationship - Weight=0.027935Length^{2.66683}
 $R^2=0.96852$

B.iv.4

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - April 26, 1990
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Clearwater
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	38 38.0	8 8.0	2 2.0	18 18.0	1 1.0	28 28.0	5 5.0	3.0
Left Pectoral	100	54 34.0	8 8.0	3 3.0	15 15.0	2 2.0	17 17.0	1 1.0	2.0
Dorsal	100	0 0	6 6.0	0 0	24 24.0	0 0	70 70.0	0 0	1.6
Right Ventral	100	77 77.0	0 0	1 1.0	2 2.0	7 7.0	6 6.0	7 7.0	1.3
Left Ventral	100	82 82.0	1 1.0	1 1.0	0 0	1 1.0	7 7.0	8 8.0	1.1
Upper Caudal	100	92 92.0	3 3.0	0 0	3 3.0	0 0	2 2.0	0 0	0.4
Lower Caudal	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	9.5

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	2	2.0	2	2.0
Excellent	11	11.0	13	13.0
Very Good	15	15.0	28	28.0
Good	26	26.0	54	54.0
Poor	35	35.0	89	89.0
Very Poor	11	11.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	15.93	1.26	10.50	18.40
Weight in grams	100	45.31	9.07	12.40	66.00
Condition Factor	100	1.10	0.05	0.98	1.27

Length/Weight Relationship - Weight=0.01849Length^{2.81324}
 $R^2=0.96753$

B.iv.5

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - April 26, 1990
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - S.W. Miramichi
 AGE - 2+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLE

Fin Name	Total # Sampled	O N %	IE N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	0 0	1 1.0	0 0	33 33.0	0 0	65 65.0	0 0	5.3
Left Pectoral	100	0 0	1 1.0	0 0	33 33.0	0 0	66 66.0	0 0	5.3
Dorsal	100	0 0	1 1.0	0 0	3 3.0	0 0	84 84.0	12 12.0	2.1
Right Ventral	100	67 67.0	2 2.0	0 0	7 7.0	1 1.0	9 9.0	14 14.0	1.9
Left Ventral	100	60 60.0	0 0	0 0	9 9.0	1 1.0	13 13.0	17 17.0	2.4
Upper Caudal	100	82 82.0	6 6.0	0 0	8 8.0	1 1.0	1 1.0	2 2.0	0.9
Lower Caudal	100	95 95.0	2 2.0	0 0	1 1.0	0 0	0 0	2 2.0	0.4
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	18.1

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	0	0	0	0
Very Good	0	0	0	0
Good	1	1.0	1	1.0
Poor	45	45.0	46	46.0
Very Poor	54	54.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	17.92	1.88	15.40	26.20
Weight in grams	100	62.81	23.42	36.20	190.70
Condition Factor	100	1.06	0.06	0.91	1.20

Length/Weight Relationship - Weight=0.015520Length^{2.86702}
 $R^2=0.96424$

B.iv.6

1990 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - April 26, 1990
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Clearwater
 AGE - 2+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	0 0	0 0	0 0	15 15.0	0 0	84 84.0	1 1.0	5.7
Left Pectoral	100	0 0	0 0	0 0	10 10.0	0 0	90 90.0	0 0	5.8
Dorsal	100	0 0	0 0	0 0	10 10.0	2 2.0	73 73.0	15 15.0	2.1
Right Ventral	100	89 89.0	3 3.0	0 0	3 3.0	1 1.0	4 4.0	0 0	0.5
Left Ventral	100	81 81.0	4 4.0	1 1.0	7 7.0	0 0	7 7.0	0 0	0.8
Upper Caudal	100	94 94.0	2 2.0	1 1.0	1 1.0	0 0	2 2.0	0 0	0.3
Lower Caudal	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	15.1

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative	Cumulative
			Frequency	Percent
Perfect	0	0	0	0
Excellent	0	0	0	0
Very Good	0	0	0	0
Good	0	0	0	0
Poor	74	74.0	74	74.0
Very Poor	26	26.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	14.84	1.45	12.60	22.80
Weight in grams	100	33.52	12.74	21.10	125.30
Condition Factor	100	1.00	0.05	0.88	1.12

Length/Weight Relationship - Weight=0.01456Length^{2.85896}
 $R^2=0.96458$

C.i.1

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Cardigan SEC
 SAMPLING DATE - May 7, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Morell - Swede #12
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	18 22.5	8 10.0	3 3.8	8 10.0	3 3.8	20 25.0	20 25.0	4.2
Left Pectoral	80	17 21.3	4 5.0	4 5.0	12 15.0	4 5.0	22 27.5	17 21.3	4.2
Dorsal	80	0 0	2 2.5	0 0	9 11.3	0 0	68 85.0	1 1.3	1.9
Right Ventral	80	80 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	71 88.8	1 1.3	0 0	1 1.3	0 0	7 8.8	0 0	0.7
Lower Caudal	80	75 93.8	3 3.8	0 0	1 1.3	0 0	1 1.3	0 0	0.4
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	11.3

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	4	5.0	4	5.0
Very Good	10	12.5	14	17.5
Good	15	18.8	29	36.3
Poor	37	46.3	66	82.5
Very Poor	14	17.5	80	80.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	7.83	1.31	5.50	12.90
Weight in grams	80	6.08	3.86	1.80	29.30
Condition Factor	80	1.16	0.09	0.97	1.42

Length/Weight Relationship - Weight=0.01239Length^{2.96701}
 $R^2=0.97448$

C.i.2

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Cardigan SEC
 SAMPLING DATE - May 7, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Morell - Swedes #2,3 & 5
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	13 13.0	6 6.0	2 2.0	3 3.0	4 4.0	49 49.0	23 23.0	5.1
Left Pectoral	100	21 21.0	8 8.0	2 2.0	7 7.0	5 5.0	43 43.0	14 14.0	4.3
Dorsal	100	1 1.0	1 1.0	0 0	19 19.0	0 0	77 77.0	2 2.0	1.8
Right Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	100	79 79.0	6 6.0	6 6.0	2 2.0	3 3.0	3 3.0	1 1.0	1.0
Lower Caudal	100	97 97.0	0 0	0 0	0 0	0 0	1 1.0	2 2.0	0.3
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	12.4

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	5	5.0	5	5.0
Very Good	6	6.0	11	11.0
Good	20	20.0	31	31.0
Poor	47	47.0	78	78.0
Very Poor	22	22.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	7.42	0.90	5.90	10.00
Weight in grams	100	4.89	2.12	1.90	12.30
Condition Factor	100	1.13	0.14	0.73	1.40

Length/Weight Relationship - Weight=0.00557Length^{3.34941}
 R²=0.91191

C.i.3

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Cardigan SEC
 SAMPLING DATE - May 7, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Morell - Swede #11
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	20 11.3	9 11.3	3 3.8	9 11.3	3 3.8	16 20.0	20 25.0	3.9
Left Pectoral	80	22 27.5	1 1.3	4 5.0	5 6.3	9 11.3	18 22.5	21 26.3	4.2
Dorsal	80	4 5.0	1 1.3	23 28.8	0 0	1 1.3	50 62.5	1 1.3	1.6
Right Ventral	80	70 87.5	0 0	0 0	1 1.3	0 0	9 11.3	0 0	0.7
Left Ventral	80	70 87.5	1 1.3	0 0	0 0	1 1.3	8 10.0	0 0	0.7
Upper Caudal	80	71 88.8	6 7.5	0 0	3 3.8	0 0	0 0	0 0	0.4
Lower Caudal	80	79 98.8	1 1.3	0 0	0 0	0 0	0 0	0 0	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	11.6

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	4	5.0	4	5.0
Very Good	11	13.8	15	18.8
Good	12	15.0	27	33.8
Poor	37	46.3	64	80.0
Very Poor	16	20.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	8.26	1.14	6.30	11.10
Weight in grams	80	6.91	2.18	2.80	15.30
Condition Factor	80	1.18	0.08	0.97	1.41

Length/Weight Relationship - Weight=0.01851Length^{2.78265}
 R²=0.97409

C.i.4

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Cardigan SEC
 SAMPLING DATE - May 7, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Morell - Swedes #6,8 & 10
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	IE N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	25 31.3	8 10.0	3 3.8	11 13.8	5 6.3	13 16.3	15 18.8	3.5
Left Pectoral	80	22 27.5	6 7.5	6 7.5	7 8.8	6 7.5	14 17.5	19 23.8	3.8
Dorsal	80	0 0	0 0	0 0	13 16.3	0 0	67 83.8	0 0	1.8
Right Ventral	80	80 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	60 75.0	7 8.8	2 2.5	1 1.3	3 3.8	2 2.5	5 6.3	1.3
Lower Caudal	80	78 97.5	0 0	0 0	0 0	1 1.3	0 0	1 1.3	0.2
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	10.7

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative	Cumulative
			Frequency	Percent
Perfect	0	0	0	0
Excellent	3	3.8	3	3.8
Very Good	20	25.0	23	28.8
Good	15	18.8	38	47.5
Poor	28	35.0	66	82.5
Very Poor	14	17.5	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	7.64	0.88	6.10	11.00
Weight in grams	80	5.41	2.17	1.90	16.40
Condition Factor	80	1.16	0.11	0.76	1.59

Length/Weight Relationship - Weight=0.00826Length^{3.16618}
 $R^2=0.92919$

C.i.5

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - P.E.I. Profitts Pond
 SAMPLING DATE - May 07, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Morell
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	75	26 34.7	12 16.0	0 0	13 17.3	0 0	24 32.0	0 0	2.9
Left Pectoral	75	25 33.3	15 20.0	0 0	11 14.7	1 1.3	23 30.7	0 0	2.9
Dorsal	75	11 14.7	6 8.0	4 5.3	12 16.0	4 5.3	28 37.3	10 13.3	1.5
Right Ventral	75	75 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	75	75 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	75	75 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Lower Caudal	75	75 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	7.3

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	4	5.3	4	5.3
Excellent	18	24.0	22	29.3
Very Good	12	16.0	34	45.3
Good	12	16.0	46	61.3
Poor	29	38.7	75	100.0
Very Poor	0	0	0	0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	75	15.70	2.11	11.70	22.00
Weight in grams	73	37.15	17.08	13.90	95.60
Condition Factor	73	0.91	0.05	0.77	1.06

Length/Weight Relationship - Weight=0.010753Length^{2.94042}
 $R^2=0.97804$

C.i.6

1989 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - P.E.I. Profitts Pond
 SAMPLING DATE - May 09, 1989
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Profitts Pond
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	101	38 37.6	30 29.7	11 10.9	17 16.8	0 0	5 5.0	0 0	1.9
Left Pectoral	101	54 53.5	23 22.8	5 5.0	13 12.9	0 0	6 5.9	0 0	1.5
Dorsal	101	6 5.9	16 15.8	2 2.0	4 4.0	14 13.9	29 28.7	30 29.7	1.8
Right Ventral	101	100 99.0	1 1.0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	101	100 99.0	1 1.0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	101	99 98.0	2 2.0	0 0	0 0	0 0	0 0	0 0	0.1
Lower Caudal	101	101 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	5.3

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	5	5.0	5	5.0
Excellent	27	26.7	32	31.7
Very Good	43	42.6	75	74.3
Good	13	12.9	88	87.1
Poor	13	12.9	101	100.0
Very Poor	0	0	0	0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	101	15.97	2.23	10.00	24.50
Weight in grams	101	39.26	19.06	9.90	122.80
Condition Factor	101	0.91	0.05	0.76	1.11

Length/Weight Relationship - Weight=0.010417Length^{2.95054}
 $R^2=0.97850$

C.i.7

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Mooney's Pond
 SAMPLING DATE - May 08, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Morell Mix
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	40 50.0	21 26.3	0 0	8 10.0	0 0	11 13.8	0 0	1.8
Left Pectoral	80	56 70.0	9 11.3	0 0	10 12.5	0 0	5 6.3	0 0	1.1
Dorsal	80	23 28.8	17 21.3	2 2.5	5 6.3	9 11.3	9 11.3	15 18.8	1.1
Right Ventral	80	80 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	80 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Lower Caudal	80	80 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	4.0

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	22	27.5	22	27.5
Excellent	25	31.3	47	58.8
Very Good	12	15.0	59	73.8
Good	11	13.8	70	87.5
Poor	10	12.5	80	100.0
Very Poor	0	0	0	0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	16.70	2.03	12.50	24.20
Weight in grams	80	42.58	18.32	24.450	126.40
Condition Factor	80	0.88	0.06	0.80	1.25

Length/Weight Relationship - Weight=0.012602Length^{1.87035}
 $R^2=0.97125$

C.ii.1

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Charlo SEC
 SAMPLING DATE - May 23, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Nepisiguit
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	78 97.5	2 2.5	0 0	0 0	0 0	0 0	0 0	0.1
Left Pectoral	80	79 98.8	0 0	1 1.3	0 0	0 0	0 0	0 0	0.3
Dorsal	80	1 1.3	0 0	0 0	8 10.0	1 1.3	64 80.0	6 7.5	1.4
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	72 90.0	7 8.8	0 0	0 0	0 0	0 0	1 1.3	0.1
Lower Caudal	80	79 98.8	1 1.3	0 0	0 0	0 0	0 0	0 0	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	2.0

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative	Cumulative
			Frequency	Percent
Perfect	1	1.3	1	1.3
Excellent	67	83.8	68	85.0
Very Good	10	12.5	78	97.5
Good	2	2.5	80	100.0
Poor	0	0.0	80	100.0
Very Poor	0	0.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	8.20	0.74	6.10	10.40
Weight in grams	80	6.25	1.85	2.40	13.00
Condition Factor	80	1.10	0.06	0.97	1.26

Length/Weight Relationship - Weight=0.0066Length^{3.24359}
 $R^2=0.64420$

C.ii.2

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Charlo SEC
 SAMPLING DATE - May 23, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Nepisiguit
 AGE- 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	76	10 13.2	3 3.9	5 6.6	7 9.2	7 9.2	24 31.6	20 26.3	4.8
Left Pectoral	76	22 28.9	3 3.9	6 7.9	3 3.9	6 7.9	19 25.0	17 22.4	3.9
Dorsal	76	0 0	0 0	0 0	6 7.9	0 0	70 92.1	0 0	1.9
Right Ventral	76	13 17.1	2 2.6	8 10.5	1 1.3	8 10.5	13 17.1	31 40.8	4.8
Left Ventral	76	17 22.4	0 0	0 0	1 1.3	11 14.5	17 22.4	30 39.5	4.9
Upper Caudal	76	62 81.6	2 2.6	5 6.6	1 1.3	2 2.6	3 3.9	1 1.3	0.9
Lower Caudal	76	69 90.8	0 0	4 5.3	0 0	0 0	1 1.3	2 2.6	0.7
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	22.1

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	2	2.6	2	2.6
Very Good	2	2.6	4	5.2
Good	3	3.9	7	9.2
Poor	10	13.2	17	22.4
Very Poor	59	77.6	76	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	76	15.71	1.30	12.60	18.50
Weight in grams	76	41.54	11.27	19.10	69.80
Condition Factor	76	1.05	0.15	0.34	1.80

Length/Weight Relationship - Weight=0.0258Length^{2.67014}
 $R^2=0.97132$

C.iii.1

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 30, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - 4.1 m. Swede #12
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	56 56.0	14 14.0	19 19.0	4 4.0	2 2.0	2 2.0	3 3.0	1.4
Left Pectoral	100	17 17.0	25 25.0	26 26.0	12 12.0	13 13.0	0 0	7 7.0	2.9
Dorsal	100	0 0	0 0	0 0	12 12.0	0 0	87 87.0	1 1.0	1.9
Right Ventral	100	29 29.0	11 11.0	0 0	11 11.0	19 19.0	3 3.0	27 27.0	3.7
Left Ventral	100	97 97.0	0 0	0 0	2 2.0	0 0	0 0	1 1.0	0.2
Upper Caudal	100	95 95.0	4 4.0	0 0	1 1.0	0 0	0 0	0 0	0.2
Lower Caudal	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	10.2

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	2	2.0	2	2.0
Very Good	20	20.0	22	22.0
Good	23	23.0	45	45.0
Poor	46	46.0	91	91.0
Very Poor	9	9.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	8.99	1.27	7.00	11.60
Weight in grams	100	7.83	3.72	3.00	16.60
Condition Factor	100	1.00	0.09	0.76	1.17

Length/Weight Relationship - Weight=0.00505Length^{3.309x5}
 $R^2=0.96713$

C.iii.2

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 30, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - 4.1 m. Swede #1
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	48 84.0	20 20.0	21 21.0	2 2.0	2 2.0	0 0	7 7.0	1.7
Left Pectoral	100	9 9.0	18 18.0	25 25.0	6 6.0	23 23.0	0 0	19 19.0	3.8
Dorsal	100	0 0	0 0	0 0	18 18.0	0 0	82 82.0	0 0	1.8
Right Ventral	100	91 91.0	4 4.0	0 0	3 3.0	0 0	2 2.0	0 0	0.3
Left Ventral	100	95 95.0	2 2.0	0 0	3 3.0	0 0	0 0	0 0	0.2
Upper Caudal	100	90 90.0	5 5.0	1 1.0	3 3.0	0 0	0 0	1 1.0	0.4
Lower Caudal	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	8.3

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	4	4.0	4	4.0
Very Good	26	26.0	30	30.0
Good	45	45.0	75	75.0
Poor	20	20.0	95	95.0
Very Poor	5	5.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	7.53	0.68	6.20	9.80
Weight in grams	100	4.48	1.47	2.20	9.60
Condition Factor	100	1.02	0.08	0.80	1.18

Length/Weight Relationship - Weight=0.00458Length^{3.39514}
 $R^2=0.94872$

C.iii.3

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 30, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - 7.4 m. Circular #6
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	IE N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	1 1.0	6 6.0	19 19.0	35 35.0	28 28.0	4 4.0	7 7.0	4.2
Left Pectoral	100	24 24.0	11 11.0	24 24.0	20 20.0	16 16.0	2 2.0	3 3.0	2.9
Dorsal	100	0 0	0 0	0 0	6 6.0	0 0	94 94.0	0 0.0	1.9
Right Ventral	100	88 88.0	2 2.0	2 2.0	2 2.0	5 5.0	0 0	1 1.0	0.5
Left Ventral	100	43 43.0	1 1.0	4 4.0	2 2.0	8 8.0	0 0	42 42.0	3.6
Upper Caudal	100	72 72.0	11 11.0	12 12.0	5 5.0	0 0	0 0	0 0	1.1
Lower Caudal	100	98 98.0	1 1.0	0 0	1 1.0	0 0	0 0	0 0	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	14.3

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	0	0	0	0
Very Good	7	7.0	7	7.0
Good	17	17.0	24	24.0
Poor	37	37.0	61	61.0
Very Poor	39	39.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	9.33	1.11	7.80	12.80
Weight in grams	100	8.81	3.67	4.30	23.00
Condition Factor	100	1.03	0.10	0.79	1.29

Length/Weight Relationship - Weight=0.00543Length^{3.28549}
 $R^2=0.94169$

C.iii.4

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 30, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - 11 m. Swede #25
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	0 0	19 19.0	22 22.0	16 16.0	19 19.0	2 2.0	22 22.0	4.3
Left Pectoral	100	27 27.0	16 16.0	21 21.0	9 9.0	16 16.0	2 2.0	9 9.0	4.3
Dorsal	100	0 0	0 0	0 0	4 4.0	0 0	95 95.0	1 1.0	2.0
Right Ventral	100	99 99.0	0 0	0 0	0 0	0 0	0 0	1 1.0	0.1
Left Ventral	100	86 86.0	1 1.0	0 0	2 2.0	2 2.0	2 2.0	7 7.0	0.8
Upper Caudal	100	65 65.0	22 22.0	5 5.0	1 1.0	1 1.0	3 3.0	3 3.0	1.4
Lower Caudal	100	98 98.0	2 2.0	0 0	0 0	0 0	0 0	0 0	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	11.5

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	0	0	0	0
Very Good	19	19.0	19	19.0
Good	29	29.0	48	48.0
Poor	32	32.0	80	80.0
Very Poor	20	20.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	9.19	1.00	7.20	12.30
Weight in grams	100	8.09	3.15	3.20	18.60
Condition Factor	100	0.99	0.11	0.77	1.28

Length/Weight Relationship - Weight=0.003335Length^{3.49083}
 $R^2=0.93317$

C.iii.5

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 30, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - 11 m. Swede #26
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	16 16.0	14 14.0	36 36.0	5 5.0	17 17.0	0 0	12 12.0	3.3
Left Pectoral	100	40 40.0	16 16.0	8 8.0	9 9.0	5 5.0	13 13.0	9 9.0	2.6
Dorsal	100	0 0	1 1.0	0 0	10 10.0	0 0	89 89.0	0 0	1.9
Right Ventral	100	99 99.0	1 1.0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	100	97 97.0	0 0	0 0	1 1.0	2 2.0	0 0	0 0	0.1
Upper Caudal	100	17 17.0	32 32.0	24 24.0	10 10.0	5 5.0	6 6.0	6 6.0	3.6
Lower Caudal	100	96 96.0	2 2.0	0 0	2 2.0	0 0	0 0	0 0	0.2
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	11.7

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	1	1.0	1	1.0
Excellent	4	4.0	5	5.0
Very Good	7	7.0	12	12.0
Good	22	22.0	34	34.0
Poor	49	49.0	83	83.0
Very Poor	17	17.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	7.78	1.26	5.50	11.50
Weight in grams	100	5.05	3.25	1.40	17.10
Condition Factor	100	0.95	0.10	0.76	1.15

Length/Weight Relationship - Weight=0.003598Length^{3.47470}
 $R^2=0.97658$

C.iii.6

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 30, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - Long Pond #5
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	8 8.0	15 15.0	21 21.0	17 17.0	12 12.0	5 5.0	22 22.0	4.1
Left Pectoral	100	5 5.0	14 14.0	15 15.0	19 19.0	20 20.0	7 7.0	20 20.0	4.3
Dorsal	100	0 0	4 4.0	0 0	22 22.0	0 0	74 74.0	0 0	1.7
Right Ventral	100	98 98.0	1 1.0	0 0	1 1.0	0 0	0 0	0 0	0.1
Left Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	100	93 93.0	5 5.0	0 0	1 1.0	0 0	1 1.0	0 0	0.3
Lower Caudal	100	97 97.0	3 3.0	0 0	0 0	0 0	0 0	0 0	0.2
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	10.5

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	2	2.0	2	2.0
Very Good	14	14.0	16	16.0
Good	30	30.0	46	46.0
Poor	39	39.0	85	85.0
Very Poor	15	15.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	7.03	0.51	6.00	8.50
Weight in grams	100	3.39	0.91	2.00	6.00
Condition Factor	100	0.95	0.09	0.75	1.12

Length/Weight Relationship - Weight=0.004211Length^{3.41821}
 $R^2=0.88776$

C.iii.7

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 30, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - Long Pond #8
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	20 20.0	13 13.0	38 38.0	7 7.0	12 12.0	1 1.0	9 9.0	3.0
Left Pectoral	100	17 17.0	15 15.0	41 41.0	2 2.0	19 19.0	2 2.0	4 4.0	3.0
Dorsal	100	0 0	0 0	0 0	18 18.0	0 0	82 82.0	0 0	1.8
Right Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	100	97 97.0	1 1.0	0 0	2 2.0	0 0	0 0	0 0	0.1
Lower Caudal	100	99 99.0	1 1.0	0 0	0 0	0 0	0 0	0 0	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	7.9

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	2	2.0	2	2.0
Very Good	39	39.0	41	41.0
Good	34	34.0	75	75.0
Poor	21	21.0	96	96.0
Very Poor	4	4.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	7.36	0.61	6.00	8.80
Weight in grams	100	4.18	1.28	1.80	7.30
Condition Factor	100	1.01	0.09	0.76	1.17

Length/Weight Relationship - Weight=0.002828Length^{3.63905}
 R²=0.93663

C.iii.8

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 30, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - 7.4 m. Circular #5
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	21 21.0	11 11.0	40 40.0	9 9.0	15 15.0	1 1.0	3 3.0	2.8
Left Pectoral	100	58 58.0	5 5.0	21 21.0	5 5.0	10 10.0	1 1.0	1 1.0	1.5
Dorsal	100	0 0	0 0	0 0	0 0	0 0	99 99.0	1 1.0	2.0
Right Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	100	72 72.0	9 9.0	7 7.0	4 4.0	5 5.0	2 2.0	1 1.0	1.3
Lower Caudal	100	95 95.0	3 3.0	1 1.0	1 1.0	0 0	0 0	0 0	0.3
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	7.9

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	8	8.0	8	8.0
Very Good	35	35.0	43	43.0
Good	29	29.0	72	72.0
Poor	22	22.0	94	94.0
Very Poor	6	6.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	7.92	0.62	6.50	10.20
Weight in grams	100	5.39	1.56	2.70	12.10
Condition Factor	100	1.06	0.09	0.86	1.25

Length/Weight Relationship - Weight=0.00401Length^{3.46742}
 $R^2=0.92432$

C.iii.9

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 01, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - Long Pond #15
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	41 41.0	3 3.0	18 18.0	4 4.0	21 21.0	6 6.0	7 7.0	2.7
Left Pectoral	100	17 17.0	4 4.0	13 13.0	7 7.0	26 26.0	18 18.0	15 15.0	4.2
Dorsal	100	1 1.0	0 0	0 0	3 3.0	2 2.0	16 16.0	78 78.0	2.7
Right Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	100	80 80.0	4 4.0	1 1.0	0 0	0 0	2 2.0	13 13.0	1.3
Lower Caudal	100	99 99.0	0 0	1 1.0	0 0	0 0	0 0	0 0	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	11.0

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	1	1.0	1	1.0
Excellent	7	7.0	8	8.0
Very Good	7	7.0	15	15.0
Good	33	33.0	48	48.0
Poor	39	39.0	87	87.0
Very Poor	13	13.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	12.41	1.49	8.40	15.30
Weight in grams	100	21.45	7.29	4.90	40.10
Condition Factor	100	1.07	0.10	0.79	1.29

Length/Weight Relationship - Weight=0.00687Length^{3.17570}
 $R^2=0.95085$

C.iii.10

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 01, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - Lake-O-Law Upper Cage Net
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	21 21.0	64 64.0	12 12.0	2 2.0	1 1.0	0 0	0 0	1.8
Left Pectoral	100	3 3.0	72 72.0	16 16.0	7 7.0	2 2.0	0 0	0 0	2.3
Dorsal	100	3 3.0	10 10.0	0 0	35 35.0	0 0	52 52.0	0 0	1.4
Right Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	100	97 97.0	2 2.0	0 0	1 1.0	0 0	0 0	0 0	0.1
Lower Caudal	100	100 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	5.6

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	9	9.0	9	9.0
Very Good	71	71.0	80	80.0
Good	17	17.0	97	97.0
Poor	3	3.0	100	100.0
Very Poor	0	0	0	0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	10.19	1.37	7.50	12.30
Weight in grams	100	11.46	4.60	3.60	21.00
Condition Factor	100	1.01	0.09	0.78	1.25

Length/Weight Relationship - Weight=0.004277Length^{3.17026}
 $R^2=0.97248$

C.iii.11

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 01, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - 11 m. Swede #28
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	100	34 34.0	13 13.0	10 10.0	13 13.0	6 6.0	22 22.0	2 2.0	2.8
Left Pectoral	100	20 20.0	14 14.0	6 6.0	27 27.0	3 3.0	28 28.0	2 2.0	3.5
Dorsal	100	0 0	0 0	0 0	2 2.0	0 0	94 94.0	4 4.0	2.0
Right Ventral	100	89 89.0	3 3.0	0 0	3 3.0	0 0	4 4.0	1 1.0	0.5
Left Ventral	100	99 99.0	1 1.0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	100	63 63.0	5 5.0	8 8.0	1 1.0	10 10.0	5 5.0	8 8.0	2.1
Lower Caudal	100	99 99.0	1 1.0	0 0	0 0	0 0	0 0	0 0	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	11.0

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	9	9.0	9	9.0
Very Good	20	20.0	29	29.0
Good	16	16.0	45	45.0
Poor	31	31.0	76	76.0
Very Poor	24	24.0	100	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	100	15.66	2.15	9.50	22.10
Weight in grams	100	44.21	17.48	9.80	112.20
Condition Factor	100	1.10	0.06	0.95	1.26

Length/Weight Relationship - Weight=0.01587Length^{2.86499}
 R²=0.98301

C.iii.12

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 01, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - Lake-O-Law Lower Cage Net
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	97	32 33.0	24 24.7	5 5.2	15 15.5	2 2.1	19 19.6	0 0	2.5
Left Pectoral	97	20 20.6	24 24.7	5 5.2	20 20.6	1 1.0	26 26.8	1 1.0	3.2
Dorsal	97	1 1.0	2 2.1	0 0	17 17.5	0 0	53 54.6	24 24.7	2.0
Right Ventral	97	90 92.8	7 7.2	0 0	0 0	0 0	0 0	0 0	0.1
Left Ventral	97	91 93.8	2 2.1	0 0	2 2.1	0 0	2 2.1	0 0	0.2
Upper Caudal	97	91 93.8	4 4.1	0 0	2 2.1	0 0	0 0	0 0	0.2
Lower Caudal	97	97 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	8.4

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	1	1.0	1	1.0
Excellent	13	13.4	14	14.4
Very Good	28	28.9	42	43.3
Good	19	19.6	61	62.9
Poor	30	30.9	91	93.8
Very Poor	6	6.2	97	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	97	16.96	2.33	10.50	23.70
Weight in grams	97	53.13	22.06	11.50	134.80
Condition Factor	97	1.04	0.07	0.77	1.20

Length/Weight Relationship - Weight=0.01456Length^{2.87925}
 R²=0.97292

C.iii.13

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 01, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - Lake-O-Law Upper Cage Net
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	89	13 14.6	32 36.0	12 13.5	15 16.9	3 3.4	14 15.7	0 0	2.9
Left Pectoral	89	6 6.7	28 31.5	5 5.6	21 23.6	1 1.1	28 31.5	0 0	3.7
Dorsal	89	0 0	13 14.6	0 0	28 31.5	0 0	48 53.9	0 0	1.4
Right Ventral	89	65 73.0	19 21.5	0 0	2 2.2	0 0	3 3.4	0 0	0.7
Left Ventral	89	78 87.6	3 3.4	0 0	4 4.5	0 0	4 4.5	0 0	0.5
Upper Caudal	89	85 95.5	2 2.2	0 0	2 2.2	0 0	0 0	0 0	0.2
Lower Caudal	89	87 97.8	1 1.1	1 1.1	0 0	0 0	0 0	0 0	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	9.5

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	4	4.5	4	4.5
Very Good	25	28.1	29	32.6
Good	19	21.3	48	53.9
Poor	30	33.7	78	87.6
Very Poor	11	12.4	89	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	89	14.73	1.57	11.00	19.10
Weight in grams	89	33.11	11.20	14.10	71.30
Condition Factor	89	1.03	0.07	0.76	1.22

Length/Weight Relationship - Weight=0.009111Length^{3.04509}
 $R^2=0.96014$

C.iv.1

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - May 13, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Dungarvon
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	34 34.0	4 5.0	29 36.3	5 6.3	5 6.3	0 0	3 3.8	2.0
Left Pectoral	80	20 25.0	8 10.0	34 42.5	6 7.5	7 8.8	0 0	5 6.3	2.7
Dorsal	80	0 0	0 0	0 0	1 1.3	0 0	75 93.8	4 5.0	2.0
Right Ventral	80	71 88.8	0 0	1 1.3	1 1.3	0 0	7 8.8	0 0	0.6
Left Ventral	80	77 96.3	0 0	1 1.3	0 0	0 0	2 2.5	0 0	0.2
Upper Caudal	80	71 88.8	2 2.5	1 1.3	2 2.5	1 1.3	2 2.5	1 1.3	0.6
Lower Caudal	80	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	8.1

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	7	8.8	7	8.8
Very Good	21	26.3	28	35.0
Good	34	42.5	62	77.5
Poor	11	13.8	73	91.3
Very Poor	7	8.8	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	7.66	1.11	5.9	12.7
Weight in grams	80	5.41	3.06	2.1	23.8
Condition Factor	80	1.12	0.07	0.92	1.29

Length/Weight Relationship - Weight=0.028079Length^{2.63426}
 $R^2=0.91081$

C.iv.2

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - May 13, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Dungarvon
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	34 34.0	4 5.0	29 36.3	5 6.3	5 6.3	0 0	3 3.8	2.0
Left Pectoral	80	20 25.0	8 10.0	34 42.5	6 7.5	7 8.8	0 0	5 6.3	2.7
Dorsal	80	0 0	0 0	0 0	1 1.3	0 0	75 93.8	4 5.0	2.0
Right Ventral	80	71 88.8	0 0	1 1.3	1 1.3	0 0	7 8.8	0 0	0.6
Left Ventral	80	77 96.3	0 0	1 1.3	0 0	0 0	2 2.5	0 0	0.2
Upper Caudal	80	71 88.8	2 2.5	1 1.3	2 2.5	1 1.3	2 2.5	1 1.3	0.6
Lower Caudal	80	80 100	2 2.0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	8.1

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	7	8.8	7	8.8
Very Good	21	26.3	28	35.0
Good	34	42.5	62	77.5
Poor	11	13.8	73	91.3
Very Poor	7	8.8	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	7.66	1.11	5.90	12.7
Weight in grams	80	5.44	3.10	2.10	23.8
Condition Factor	80	1.12	0.08	0.92	1.30

Length/Weight Relationship - Weight=0.00706Length^{3.22585}
 $R^2=0.98038$

C.iv.3

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - May 13, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Dungarvon (exer)
 AGE - 1+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	17 21.3	10 12.5	29 2.5	20 25.0	4 5.0	5 6.3	22 27.5	3.9
Left Pectoral	80	20 25.0	10 12.5	1 1.3	22 27.5	4 5.0	3 3.8	20 25.0	3.6
Dorsal	80	0 0	0 0	0 0	4 5.0	0 0	74 92.5	2 2.5	2.0
Right Ventral	80	75 93.8	0 0	1 1.3	1 1.3	0 0	2 2.5	1 1.3	0.3
Left Ventral	80	72 90.0	1 1.3	0 0	0 0	0 0	3 3.8	4 5.0	0.6
Upper Caudal	80	69 86.3	4 5.0	0 0	3 3.8	0 0	1 1.3	3 3.8	0.7
Lower Caudal	80	79 98.8	0 0	0 0	0 0	0 0	0 0	1 1.3	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	11.2

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	5	6.3	5	6.3
Very Good	5	6.3	10	12.5
Good	28	35.0	38	47.5
Poor	25	31.3	63	78.8
Very Poor	17	21.3	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	14.05	0.88	12.20	16.00
Weight in grams	80	29.84	5.89	18.80	45.10
Condition Factor	80	1.06	0.05	0.91	1.19

Length/Weight Relationship - Weight=0.01048Length^{3.00508}
 $R^2=0.92779$

C.iv.4

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - May 13, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - NW Miramichi Pond #7
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	29 36.3	20 25.0	15 18.8	1 1.3	9 11.3	1 1.3	5 6.3	2.2
Left Pectoral	80	34 42.5	20 25.0	14 17.5	3 3.8	5 6.3	1 1.3	3 3.8	1.8
Dorsal	80	0 0	1 1.3	0 0	12 15.0	1 1.3	65 81.3	1 1.3	1.8
Right Ventral	80	78 97.5	1 1.3	0 0	0 0	0 0	1 1.3	0 0	0.1
Left Ventral	80	79 98.8	0 0	0 0	0 0	1 1.3	0 0	0 0	0.1
Upper Caudal	80	65 81.3	8 10.0	0 0	2 2.5	0 0	4 5.0	1 1.3	0.9
Lower Caudal	80	78 97.5	2 2.5	0 0	0 0	0 0	0 0	0 0	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	7.0

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	3	3.8	3	3.8
Very Good	39	48.8	42	52.5
Good	25	31.3	67	83.8
Poor	10	12.5	77	96.3
Very Poor	3	3.8	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	7.66	0.97	5.90	11.20
Weight in grams	80	5.29	2.34	1.90	15.00
Condition Factor	80	1.11	0.08	0.90	1.30

Length/Weight Relationship - Weight=0.006397Length^{3.27022}
 R²=0.97096

C.iv.5

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - May 13, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - NW Miramichi
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	17 21.3	28 35.0	0 0	12 15.0	0 0	20 25.0	3 3.8	3.1
Left Pectoral	80	26 32.5	23 28.8	0 0	9 11.3	0 0	21 26.3	1 1.3	2.7
Dorsal	80	0 0	1 1.3	0 0	9 11.3	0 0	42 52.5	28 35.0	2.2
Right Ventral	80	35 43.8	4 5.0	1 1.3	1 1.3	2 2.5	7 8.8	30 37.5	3.5
Left Ventral	80	50 62.5	0 0	2 2.5	0 0	4 5.0	3 3.8	21 26.3	2.4
Upper Caudal	80	72 90.0	1 1.3	0 0	1 1.3	1 1.3	3 3.8	2 2.5	0.6
Lower Caudal	80	78 97.5	0 0	0 0	1 1.3	0 0	0 0	1 1.3	0.2
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	14.7

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	5	6.3	5	6.3
Very Good	8	10.0	13	16.3
Good	12	15.0	25	31.3
Poor	19	23.8	44	55.0
Very Poor	36	45.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	17.89	1.03	12.70	22.00
Weight in grams	80	60.10	12.96	22.30	109.30
Condition Factor	80	1.04	0.06	0.90	1.23

Length/Weight Relationship - Weight=0.014844Length^{2.87462}
 R²=0.94278

C.iv.6

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - May 13, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Dungarvon (not exer)
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	81	26 32.1	13 16.0	1 1.2	13 16.0	0 0	22 27.2	6 7.4	3.1
Left Pectoral	81	26 32.1	11 13.6	0 0	13 16.0	1 1.2	22 27.2	8 9.9	3.3
Dorsal	81	0 0	0 0	0 0	4 4.9	0 0	64 79.0	13 16.0	2.1
Right Ventral	81	48 59.3	0 0	7 8.6	1 1.2	5 6.2	6 7.4	14 17.3	2.3
Left Ventral	81	42 51.9	1 1.2	3 3.7	1 1.2	3 3.7	14 17.3	17 21.0	2.9
Upper Caudal	81	72 88.9	1 1.2	0 0	2 2.5	1 1.2	2 2.5	3 3.7	0.7
Lower Caudal	81	75 92.6	3 3.7	1 1.2	0 0	0 0	0 0	2 2.5	0.5
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	14.9

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	4	4.9	4	4.9
Very Good	5	6.2	9	11.1
Good	10	12.3	19	23.5
Poor	31	38.3	50	61.7
Very Poor	31	38.3	81	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	81	16.87	1.20	14.50	19.50
Weight in grams	81	49.78	11.14	30.40	79.10
Condition Factor	81	1.02	0.06	0.82	1.19

Length/Weight Relationship - Weight=0.01120Length^{.96672}
 $R^2=0.92089$

C.iv.7

1991 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - May 13, 1991
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - NW Miramichi (not exer)
 AGE - 1+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	31 38.8	6 7.5	0 0	34 42.5	0 0	7 8.8	2 2.5	2.6
Left Pectoral	80	33 41.3	12 15.0	0 0	23 28.8	0 0	10 12.5	2 2.5	2.4
Dorsal	80	0 0	0 0	0 0	5 6.3	0 0	73 91.3	2 2.5	1.2
Right Ventral	80	78 97.5	0 0	0 0	0 0	0 0	2 2.5	0 0	0.2
Left Ventral	80	78 97.5	0 0	0 0	1 1.3	0 0	0 0	1 1.3	0.1
Upper Caudal	80	64 80.0	2 2.5	0 0	3 3.8	0 0	10 12.5	1 1.3	1.2
Lower Caudal	80	75 93.8	5 6.3	0 0	0 0	0 0	0 0	2 2.5	0.3
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	8.7

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0
Excellent	9	11.3	9	11.3
Very Good	19	23.8	28	35.0
Good	20	25.0	48	60.0
Poor	26	32.5	74	92.5
Very Poor	6	7.5	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	14.43	0.62	13.00	16.30
Weight in grams	80	32.80	4.44	22.70	46.00
Condition Factor	80	1.09	0.06	0.91	1.28

Length/Weight Relationship - Weight=0.015074Length^{2.82-08}
 R²=0.84767

D.i.1

1992 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Cardigan SEC
 SAMPLING DATE - May 07, 1992
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - NW Miramichi x Reconditioned Kelt
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	5 6.3	18 22.5	1 1.3	6 7.5	30 37.5	8 10.0	12 15.0	4.3
Left Pectoral	80	4 5.0	16 20.0	1 1.3	13 16.3	22 27.5	17 21.3	7 8.8	4.4
Dorsal	80	0 0	0 0	0 0	6 7.5	0 0	74 92.5	0 0	1.9
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	76 95.0	3 3.8	0 0	1 1.3	0 0	0 0	0 0	0.2
Lower Caudal	80	74 92.5	2 2.5	1 1.3	1 1.3	1 1.3	0 0	1 1.3	0.5
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	11.3

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	4	5.0	4	5.0
Very Good	13	16.3	17	21.3
Good	9	11.3	26	32.5
Poor	46	57.5	72	90.0
Very Poor	8	10.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	8.61	1.40	6.70	13.00
Weight in grams	80	6.80	4.37	2.80	22.40
Condition Factor	80	0.96	0.10	0.74	1.17

Length/Weight Relationship - Weight=0.004962Length^{3.30485}
 $R^2=0.96225$

D.i.2

1992 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Cardigan SEC
 SAMPLING DATE - May 07, 1992
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - NW Miramichi x NW Miramichi
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	13 16.3	39 48.8	8 10.0	1 1.3	17 21.3	2 2.5	0 0	2.5
Left Pectoral	80	22 27.5	37 46.3	6 7.5	1 1.3	13 16.3	1 1.3	0 0	2.1
Dorsal	80	1 1.3	1 1.3	0 0	2 2.5	0 0	76 95.0	0 0	1.9
Right Ventral	80	79 98.8	0 0	0 0	1 1.3	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	76 95.0	2 2.5	0 0	0 0	0 0	0 0	2 2.5	0.3
Lower Caudal	80	77 96.3	1 1.3	0 0	0 0	0 0	0 0	2 2.5	0.3
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	7.2

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative	Cumulative
			Frequency	Percent
Perfect	0	0.0	0	0.0
Excellent	6	7.5	6	7.5
Very Good	38	47.5	44	55.0
Good	22	27.5	66	82.5
Poor	12	15.0	78	97.5
Very Poor	2	2.5	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	8.90	1.62	6.20	13.20
Weight in grams	80	8.16	5.23	2.20	24.00
Condition Factor	80	1.03	0.09	0.82	1.21

Length/Weight Relationship - Weight=0.006628Length^{3.20251}
 $R^2=0.98035$

D.i.3

1992 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Cardigan SEC
 SAMPLING DATE - May 07, 1992
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Morell x Morell
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	26 33.8	30 37.5	1 1.3	13 16.3	4 5.0	3 3.8	2 2.5	2.1
Left Pectoral	80	22 27.5	31 38.8	3 3.8	9 11.3	13 16.3	1 1.3	1 1.3	2.3
Dorsal	80	0 0	0 0	0 0	24 30.0	0 0	56 70.0	0 0	1.7
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	72 90.0	4 5.0	0 0	2 2.5	2 2.5	0 0	0 0	0.4
Lower Caudal	80	77 96.3	1 1.3	0 0	0 0	2 2.5	0 0	1 1.3	0.3
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	6.8

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	14	17.5	14	17.5
Very Good	31	38.8	45	56.3
Good	20	25.0	65	81.3
Poor	13	16.3	78	97.5
Very Poor	2	2.5	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	8.65	1.49	5.90	12.70
Weight in grams	80	7.12	4.41	1.90	22.60
Condition Factor	80	0.99	0.09	0.75	1.23

Length/Weight Relationship - Weight=0.006993Length^{3.16687}
 $R^2=0.90502$

D.i.4

1992 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Cardigan SEC
 SAMPLING DATE - May 8, 1992
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Morell
 AGE- 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	19 23.8	27 33.8	0 0	17 21.3	3 3.8	14 17.5	0 0	2.8
Left Pectoral	80	16 20.0	31 38.8	0 0	20 25.0	0 0	13 16.3	0 0	2.8
Dorsal	80	0 0	0 0	0 0	9 11.3	1 1.3	64 80.0	6 7.5	2.0
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	77 96.3	0 0	0 0	0 0	0 0	0 0	0 0	0.2
Upper Caudal	80	78 97.5	0 0	0 0	2 2.5	0 0	0 0	0 0	0.1
Lower Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	7.8

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0	0	0.0
Excellent	11	13.8	11	13.8
Very Good	31	38.8	42	52.5
Good	11	13.8	53	66.3
Poor	23	28.8	76	95.0
Very Poor	4	5.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	16.24	1.68	10.60	19.20
Weight in grams	80	47.37	14.30	15.20	83.50
Condition Factor	80	1.08	0.05	0.93	1.28

Length/Weight Relationship - Weight=0.018183Length^{2.81251}
 R²=0.96954

D.i.5

1992 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Mooneys Pond
 SAMPLING DATE - May 8, 1992
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Morell - Mooneys Pond
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	42 52.5	18 22.5	0 0	4 5.0	0 0	16 20.0	0 0	1.9
Left Pectoral	80	49 61.3	11 13.8	0 0	5 6.3	0 0	15 18.8	0 0	1.7
Dorsal	80	11 13.8	6 7.5	9 11.3	1 1.3	16 20.0	13 16.3	24 30.0	1.8
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	80 100.0	0 0	0 0	2 2.5	0 0	0 0	0 0	0.0
Lower Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	5.3

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	7	8.8	7	8.8
Excellent	33	18.8	40	50.0
Very Good	15	13.8	55	68.8
Good	23	17.8	66	82.5
Poor	14	5.5	80	100.0
Very Poor	0	0.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	16.12	1.68	11.60	24.20
Weight in grams	80	36.56	14.30	14.60	129.70
Condition Factor	80	0.85	0.05	0.78	1.09

Length/Weight Relationship - Weight=0.010623Length^{2.91701}
 $R^2=0.96245$

D.i.6

1992 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Profitts Pond
 SAMPLING DATE - May 7, 1992
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Morell
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	38 48.0	31 39.0	2 2.5	4 5.0	0 0	5 6.3	0 0	1.4
Left Pectoral	80	33 41.0	33 41.0	0 0	6 7.5	0 0	8 10.0	0 0	1.7
Dorsal	80	4 5.0	15 19.0	1 1.3	23 29.0	26 33.0	5 6.3	6 7.5	1.3
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	1 1.0	0 0	0.0
Upper Caudal	80	80 100.0	0 0	0 0	0 0	0 0	3 3.0	0 0	0.0
Lower Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	4.5

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative	Cumulative
			Frequency	Percent
Perfect	4	5.0	4	5.0
Excellent	30	38.0	34	43.0
Very Good	32	40.0	66	83.0
Good	7	9.0	73	91.0
Poor	7	9.0	80	100.0
Very Poor	0	0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	14.8	1.37	10.3	17.3
Weight in grams	80	32.00	7.71	9.30	47.30
Condition Factor	80	0.98	0.06	0.85	1.12

Length/Weight Relationship - Weight=0.011386Length^{2.94371}
 R²=0.95719

D.ii.1

1992 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Charlo SEC
 SAMPLING DATE - May 11, 1992
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Nepisiquit R.
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	76 95.0	3 3.8	0 0	1 1.3	0 0	0 0	0 0	0.1
Left Pectoral	80	71 88.8	7 8.8	0 0	2 2.5	0 0	0 0	0 0	0.3
Dorsal	80	1 1.3	14 17.5	0 0	19 23.8	0 0	46 57.5	0 0	1.4
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	77 96.3	3 3.8	0 0	0 0	0 0	0 0	0 0	0.1
Lower Caudal	80	78 97.5	2 2.5	0 0	0 0	0 0	0 0	0 0	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	2.0

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	14	17.5	14	17.5
Excellent	54	67.5	68	85.0
Very Good	9	11.3	77	96.3
Good	2	2.5	79	98.8
Poor	1	1.3	80	100.0
Very Poor	0	0.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	7.10	0.63	5.70	8.60
Weight in grams	80	3.76	1.03	1.80	6.30
Condition Factor	80	1.02	0.08	0.76	1.19

Length/Weight Relationship - Weight=0.007237Length^{3.17582}
 R²=0.92835

D.ii.2

1992 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Charlo SEC
 SAMPLING DATE - May 11, 1992
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Nepisiquit R.
 AGE- 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	79	7 8.9	29 36.7	8 10.1	12 15.2	8 10.1	11 13.9	4 5.1	3.3
Left Pectoral	79	7 8.9	18 22.8	8 10.1	11 13.9	10 12.7	9 11.4	16 20.3	4.1
Dorsal	79	0 0	0 0	0 0	1 1.3	0 0	78 98.7	0 0	2.0
Right Ventral	79	2 2.5	0 0	0 0	5 6.3	0 0	72 91.1	0 0	5.7
Left Ventral	79	1 1.3	0 0	0 0	4 5.1	0 0	74 93.7	0 0	5.8
Upper Caudal	79	72 91.1	5 6.3	0 0	0 0	2 2.5	0 0	0 0	0.3
Lower Caudal	79	78 98.7	1 1.3	0 0	0 0	0 0	0 0	0 0	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	21.3

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	0	0.0	0	0.0
Very Good	0	0.0	0	0.0
Good	0	0.0	0	0.0
Poor	2	2.5	2	2.5
Very Poor	77	97.5	79	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	79	13.99	1.03	10.30	16.30
Weight in grams	79	30.35	6.59	11.80	45.90
Condition Factor	79	1.09	0.07	0.95	1.29

Length/Weight Relationship - Weight=0.012776Length^{2.93925}
 R²=0.92436

D.iii.1

1992 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 30, 1992
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Long Pond #5
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	IE N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	1 1.3	15 18.8	28 35.0	4 5.0	31 38.8	0 0	1 1.3	3.6
Left Pectoral	80	3 3.8	18 22.5	26 32.5	2 2.5	30 37.5	0 0	1 1.3	3.5
Dorsal	80	0 0	0 0	0 0	4 5.0	1 1.3	58 72.5	17 21.3	2.2
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	72 90.0	3 3.8	5 6.3	0 0	0 0	0 0	0 0	0.4
Lower Caudal	80	76 95.0	1 1.3	3 3.8	0 0	0 0	0 0	0 0	0.3
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	9.9

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative	Cumulative
			Frequency	Percent
Perfect	0	0.0	0	0.0
Excellent	1	1.3	1	1.3
Very Good	8	10.0	9	11.3
Good	30	37.5	39	48.8
Poor	35	43.8	74	92.5
Very Poor	6	7.5	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	8.66	0.94	7.00	11.00
Weight in grams	80	6.38	2.72	2.90	15.10
Condition Factor	80	0.93	0.11	0.76	1.26

Length/Weight Relationship - Weight=0.002922Length^{1.5343}
 $R^2=0.93024$

D.iii.2

1992 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 30, 1992
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - 4.1 m. Swede pond #11
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	24 30.0	29 36.3	8 10.0	6 7.5	13 16.3	0 0	0 0	2.1
Left Pectoral	80	12 15.0	45 56.3	8 10.0	6 7.5	9 11.3	0 0	0 0	2.3
Dorsal	80	0 0	0 0	0 0	7 8.8	0 0	69 86.3	4 5.0	2.0
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	72 90.0	3 3.8	2 2.5	0 0	3 3.8	0 0	0 0	0.4
Lower Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	6.8

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	12	15.0	12	15.0
Very Good	32	40.0	44	55.0
Good	24	30.0	68	85.0
Poor	11	13.8	79	98.8
Very Poor	1	1.3	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	7.42	0.64	6.00	10.00
Weight in grams	80	4.32	1.42	1.70	10.60
Condition Factor	80	1.03	0.09	0.79	1.21

Length/Weight Relationship - Weight=0.003875Length^{3.48422}
 $R^2=0.92015$

D.iii.3

1992 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 30, 1992
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - 11 m. Swede #27
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	3 3.8	52 65.0	21 26.3	2 2.5	2 2.5	0 0	0 0	2.3
Left Pectoral	80	2 2.5	49 61.3	26 32.5	1 1.3	2 2.5	0 0	0 0	2.4
Dorsal	80	0 0	0 0	0 0	4 5.0	0 0	76 95.0	0 0	2.0
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	59 73.8	13 16.3	7 8.8	0 0	1 1.5	0 0	0 0	0.9
Lower Caudal	80	65 81.3	10 12.5	4 5.0	0 0	1 1.3	0 0	0 0	1.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	8.6

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	1	1.3	1	1.3
Very Good	22	27.5	23	28.8
Good	31	38.8	54	67.5
Poor	23	28.8	77	96.3
Very Poor	3	3.8	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	9.55	1.38	7.50	12.10
Weight in grams	80	9.55	4.29	3.60	18.60
Condition Factor	80	1.02	0.09	0.76	1.22

Length/Weight Relationship - Weight=0.005981Length^{3.23528}
 $R^2=0.96498$

D.iii.4

1992 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 30, 1992
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - 7.4 m. Circular #7
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	IE N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	27 33.8	51 63.8	0 0	1 1.3	0 0	0 0	0 0	1.4
Left Pectoral	80	17 21.3	61 76.3	0 0	0 0	2 2.5	0 0	0 0	1.7
Dorsal	80	0 0	0 0	0 0	1 1.3	2 2.5	61 76.3	16 20.0	2.2
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	43 53.8	23 28.8	10 12.5	2 2.5	2 2.5	0 0	0 0	1.6
Lower Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	6.8

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative	Cumulative
			Frequency	Percent
Perfect	0	0.0	0	0.0
Excellent	7	8.8	7	8.8
Very Good	33	41.3	40	50.0
Good	27	33.8	67	83.0
Poor	13	16.3	80	100.0
Very Poor	0	0.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	9.30	1.18	7.20	11.20
Weight in grams	80	8.67	3.68	3.30	15.60
Condition Factor	80	1.00	0.12	0.75	1.22

Length/Weight Relationship - Weight=0.002398Length^{1.64030}
 $R^2=0.96732$

D.iii.5

1992 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - April 30, 1992
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Long pond #8 greenhouse
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	1 1.3	36 45.0	35 43.8	0 0	8 10.0	0 0	0 0	2.7
Left Pectoral	80	3 3.8	34 42.5	37 46.5	0 0	6 7.5	0 0	0 0	2.6
Dorsal	80	0 0	0 0	0 0	1 1.3	0 0	55 68.8	24 30.0	2.3
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	62 77.5	6 7.5	10 12.5	0 0	1 1.3	0 0	1 1.3	0.9
Lower Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	8.5

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	1	1.3	1	1.3
Very Good	16	20.0	17	21.3
Good	41	51.3	58	72.5
Poor	21	26.3	79	98.8
Very Poor	1	1.3	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	9.01	0.99	7.00	10.80
Weight in grams	80	7.78	2.85	3.00	13.40
Condition Factor	80	1.01	0.12	0.75	1.66

Length/Weight Relationship - Weight=0.003634Length^{3.46449}
 $R^2=0.92896$

D.iii.6

1992 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 19, 1992
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Lake-O-Law Lower Cage
 AGE- 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	IE N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	79	10 12.7	60 75.9	2 2.5	3 3.8	2 2.5	1 1.3	1 1.3	2.0
Left Pectoral	79	14 17.7	52 65.8	1 1.3	9 11.4	2 2.5	0 0	1 1.3	2.0
Dorsal	79	0 0	1 1.3	0 0	35 44.3	2 2.5	41 51.9	0 0	1.5
Right Ventral	79	66 83.5	11 13.9	0 0	2 2.5	0 0	0 0	0 0	0.4
Left Ventral	79	70 88.6	6 7.6	0 0	3 3.8	0 0	0 0	0 0	0.3
Upper Caudal	79	72 91.1	4 5.1	0 0	1 1.3	1 1.3	1 1.3	0 0	0.4
Lower Caudal	79	77 97.5	0 0	0 0	0 0	1 1.3	0 0	1 1.3	0.2
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	6.9

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	9	11.4	9	11.4
Very Good	37	46.8	46	58.2
Good	21	26.6	67	84.8
Poor	10	12.7	77	97.5
Very Poor	2	2.5	79	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	79	16.69	1.64	12.20	22.00
Weight in grams	79	46.78	13.37	20.80	98.50
Condition Factor	79	0.98	0.07	0.80	1.19

Length/Weight Relationship - Weight=0.019913Length^{2.74823}
 $R^2=0.98630$

D.iii.7

1992 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 19, 1992
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Lake-O-Law Upper Cage
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	1 1.3	61 76.3	5 6.3	3 3.8	10 12.5	0 0	0 0	2.5
Left Pectoral	80	4 5.0	62 77.5	5 6.3	3 3.8	6 7.5	0 0	0 0	2.3
Dorsal	80	0 0	0 0	0 0	54 67.5	0 0	24 30.0	2 2.5	1.4
Right Ventral	80	65 81.3	9 11.3	0 0	5 6.3	1 1.3	0 0	0 0	0.5
Left Ventral	80	53 66.3	11 13.8	1 1.3	13 16.3	2 2.5	0 0	0 0	1.1
Upper Caudal	80	69 86.3	3 3.8	0 0	2 2.5	6 7.5	0 0	1 1.3	0.7
Lower Caudal	80	78 97.5	0 0	1 1.3	0 0	0 0	0 0	1 1.3	0.2
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	8.6

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	1	1.3	1	1.3
Very Good	36	45.0	37	46.3
Good	17	21.3	54	67.5
Poor	18	22.5	72	90.0
Very Poor	8	10.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	15.79	1.43	11.10	23.80
Weight in grams	80	37.89	10.72	15.30	98.70
Condition Factor	80	0.94	0.07	0.81	1.12

Length/Weight Relationship - Weight=0.020216Length^{2.72293}
 R²=0.91599

D.iv.1

1992 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - May 05, 1992
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Rocky Brook
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	26 32.5	41 51.3	6 7.5	3 3.8	4 5.0	0 0	0 0	1.7
Left Pectoral	80	63 78.8	14 17.5	3 3.8	0 0	0 0	0 0	0 0	0.5
Dorsal	80	0 0	0 0	0 0	27 33.8	1 1.3	47 58.8	5 6.3	1.7
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	52 65.0	8 10.0	3 3.8	3 3.8	9 11.3	3 3.8	2 2.5	1.8
Lower Caudal	80	76 95.0	2 2.5	0 0	0 0	0 0	1 1.3	1 1.3	0.4
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	6.0

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	18	22.5	18	22.5
Very Good	35	43.8	53	66.3
Good	14	17.5	67	83.8
Poor	11	13.8	78	97.5
Very Poor	2	2.5	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	9.62	0.75	8.20	11.00
Weight in grams	80	9.72	2.47	5.70	15.10
Condition Factor	80	1.07	0.07	0.87	1.21

Length/Weight Relationship - Weight=0.006732Length^{3.20268}
 $R^2=0.93376$

D.iv.2

1992 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
SAMPLING DATE - May 04, 1992
SPECIES - Atlantic Salmon
TYPE OR ORIGIN - NW Miramichi Pond #4
AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	30 37.5	22 27.5	6 7.5	6 7.5	15 18.8	0 0	1 1.3	2.1
Left Pectoral	80	40 50.0	20 25.0	4 5.0	6 7.5	10 12.5	0 0	0 0	1.6
Dorsal	80	1 1.3	0 0	0 0	10 12.5	0 0	69 86.3	0 0	1.9
Right Ventral	80	79 98.8	0 0	0 0	0 0	1 1.3	0 0	0 0	0.1
Left Ventral	80	78 97.5	0 0	0 0	2 2.5	0 0	0 0	0 0	0.1
Upper Caudal	80	60 75.0	7 8.8	1 1.3	1 1.3	7 8.8	2 2.5	0 0	1.3
Lower Caudal	80	75 93.8	1 1.3	1 1.3	0 0	0 0	1 1.3	2 2.5	0.5
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	7.5

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	13	16.3	13	16.3
Very Good	28	35.0	41	51.3
Good	17	21.3	58	72.5
Poor	18	22.5	76	95.0
Very Poor	4	5.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	6.91	0.63	5.80	8.70
Weight in grams	80	3.32	1.00	1.80	6.20
Condition Factor	80	0.98	0.08	0.82	1.28

Length/Weight Relationship - Weight=0.009048Length^{3.03975}
 $R^2=0.92082$

D.iv.3

1992 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - May 04, 1992
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - NW Miramichi
 AGE - Advanced 1+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	61 87.1	4 5.7	1 1.4	2 2.9	2 2.9	0 0	0 0	0.4
Left Pectoral	80	55 78.6	9 12.9	2 2.9	1 1.4	3 4.3	0 0	0 0	0.6
Dorsal	80	22 31.4	0 0	0 0	0 0	2 2.9	43 61.4	0 0	1.7
Right Ventral	80	70 100.0	0 0	0 0	0 0	0 0	3 4.3	0 0	0.0
Left Ventral	80	70 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	64 75.0	3 4.3	1 1.4	0 0	1 1.4	0 0	1 1.4	0.4
Lower Caudal	80	70 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	3.1

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	44	62.9	44	62.9
Very Good	19	27.1	63	90.0
Good	6	8.6	69	98.6
Poor	1	1.4	70	100.0
Very Poor	0	0.0	70	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	70	9.40	0.86	7.40	11.50
Weight in grams	70	9.35	2.79	1.80	17.70
Condition Factor	70	1.10	0.08	0.82	1.29

Length/Weight Relationship - Weight=0.007629Length^{3.16038}
 R²=0.93160

D.iv.4

1992 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - May 05, 1992
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Rocky Brook advanced
 AGE- 1+ smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	IE N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	22 27.5	48 60.0	2 2.5	6 7.5	2 2.5	0 0	0 0	1.7
Left Pectoral	80	28 35.0	39 48.8	3 3.8	8 10.0	1 1.3	0 0	1 1.3	1.6
Dorsal	80	0 0	0 0	0 0	9 11.3	0 0	71 88.8	0 0	1.9
Right Ventral	80	57 71.3	15 18.8	4 5.0	1 1.3	3 3.8	0 0	0 0	0.8
Left Ventral	80	61 76.3	7 8.8	3 3.8	2 2.5	7 8.8	0 0	0 0	0.8
Upper Caudal	80	79 98.8	0 0	0 0	0 0	0 0	1 1.3	0 0	0.1
Lower Caudal	80	78 97.5	1 1.3	1 1.3	0 0	0 0	0 0	0 0	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	7.0

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative	Cumulative
			Frequency	Percent
Perfect	0	0.0	0	0.0
Excellent	4	5.0	4	5.0
Very Good	45	56.3	49	61.3
Good	16	20.0	65	81.3
Poor	13	16.3	78	97.5
Very Poor	2	2.5	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	14.44	1.22	10.80	16.20
Weight in grams	80	31.36	6.79	13.30	44.00
Condition Factor	80	1.03	0.08	0.76	1.26

Length/Weight Relationship - Weight=0.02699Length^{2.63730}
 R²=0.91718

D.iv.5

1992 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - May 04, 1992
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Dungarvon
 AGE- 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	17 21.3	30 37.5	7 8.8	10 12.5	16 20.0	0 0	0 0	2.5
Left Pectoral	80	13 16.3	26 32.5	10 12.5	18 12.5	12 15.0	0 0	1 1.3	2.8
Dorsal	80	0 0	0 0	0 0	17 21.3	5 6.3	48 60.0	10 12.5	3.9
Right Ventral	80	14 17.5	7 8.8	0 0	17 21.3	26 32.5	15 18.8	1 1.3	4.3
Left Ventral	80	11 13.8	0 0	2 2.5	16 20.0	35 43.8	12 15.0	4 5.0	1.9
Upper Caudal	80	39 48.8	3 3.8	1 1.3	8 10.0	21 26.3	2 2.5	6 7.5	3.0
Lower Caudal	80	72 90.0	1 1.3	1 1.3	0 0	2 2.5	2 2.5	2 2.5	0.8
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	19.2

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	1	1.3	1	1.3
Very Good	2	2.5	3	3.8
Good	1	1.3	4	5.0
Poor	16	20.0	20	25.0
Very Poor	60	75.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	14.43	1.20	12.00	18.40
Weight in grams	80	32.31	7.96	18.80	62.90
Condition Factor	80	1.06	0.07	0.86	1.24

Length/Weight Relationship - Weight=0.028079Length^{1.61426}
 $R^2=0.91081$

E.i.1

1993 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Cardigan SEC
 SAMPLING DATE - May 3, 1993
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Recon. Kelt
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	IE N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	46 57.5	9 11.3	6 7.5	3 3.8	2 2.5	4 5.0	10 12.5	1.9
Left Pectoral	80	32 40.0	10 12.5	7 8.8	5 6.3	7 8.8	2 2.5	17 21.3	2.8
Dorsal	80	1 1.3	0 0	0 0	6 7.5	0 0	73 91.3	0 0	1.8
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.1
Upper Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0
Lower Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	4.7

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	22	27.5	22	27.5
Very Good	22	27.5	44	55.0
Good	23	28.8	67	83.8
Poor	9	11.3	76	95.0
Very Poor	4	5.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	7.90	0.93	6.60	11.90
Weight in grams	80	5.40	2.39	3.00	18.40
Condition Factor	80	1.05	0.07	0.84	1.25

Length/Weight Relationship - Weight=0.007882Length^{3.13584}
 $R^2=0.96350$

E.i.2

1993 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Cardigan SEC
 SAMPLING DATE - May 3, 1993
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Morell X Morell
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	21 26.3	12 15.0	2 2.5	7 8.8	4 5.0	8 10.0	26 32.5	3.9
Left Pectoral	80	43 53.8	9 11.3	3 3.8	5 6.3	1 1.3	7 8.8	12 15.0	2.2
Dorsal	80	1 1.3	0 0	0 0	3 3.8	0 0	75 93.8	1 1.3	2.0
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	77 96.3	1 1.3	0 0	1 1.3	0 0	0 0	1 1.3	0.2
Lower Caudal	80	79 98.8	1 1.3	0 0	0 0	0 0	0 0	0 0	.1
All Fins Combined	80	NA	NA	NA	NA	NA	NA	NA	8.3

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	12	15.0	12	15.0
Very Good	19	23.8	31	38.8
Good	24	30.0	55	68.8
Poor	17	21.3	72	90.0
Very Poor	8	10.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	7.74	0.90	6.00	11.40
Weight in grams	80	4.75	2.09	1.90	15.50
Condition Factor	80	0.97	0.22	0.78	1.20

Length/Weight Relationship - Weight=0.005142Length^{3.11001}
 $R^2=0.94652$

E.i.3

1993 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Cardigan SEC
 SAMPLING DATE - May 3, 1993
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Kelt X Morell
 AGE - 1+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	40 50.0	27 33.8	0 0	12 15.0	0 0	0 0	1 1.3	1.4
Left Pectoral	80	44 55.0	21 26.3	2 2.5	7 8.8	0 0	6 7.5	0 0	1.4
Dorsal	80	0 0	4 5.0	1 1.3	6 7.5	0 0	68 85.0	1 1.3	1.8
Right Ventral	80	79 98.8	1 1.3	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	79 97.5	1 1.3	0 0	1 1.3	0 0	0 0	0 0	0.1
Upper Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Lower Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	4.7

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	4	5.0	4	5.0
Excellent	21	26.3	25	31.3
Very Good	41	51.3	66	82.5
Good	7	8.8	73	91.3
Poor	7	8.8	80	100.0
Very Poor	0	0.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	12.16	0.79	10.30	13.90
Weight in grams	80	18.86	4.02	11.30	31.00
Condition Factor	80	1.03	0.07	0.90	1.32

Length/Weight Relationship - Weight=0.007933Length^{3.10560}
 $R^2=0.91535$

E.i.4

1993 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Profitts Pond
 SAMPLING DATE - May 04, 1993
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Reconditioned Kelt x Morell Salmon
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	36 45.0	23 28.8	0 0	12 15.0	0 0	9 11.3	0 0	1.9
Left Pectoral	80	38 47.5	26 32.5	0 0	8 10.0	0 0	8 10.0	0 0	1.7
Dorsal	80	17 21.3	19 23.8	2 2.5	18 22.5	3 3.8	20 25.0	1 1.3	0.9
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Lower Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	4.4

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	15	18.8	15	18.8
Excellent	25	31.3	40	50.0
Very Good	18	22.5	58	72.5
Good	13	16.3	71	88.8
Poor	9	11.3	80	100.0
Very Poor	0	0.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	14.56	2.15	10.10	22.30
Weight in grams	80	30.07	16.84	9.30	113.80
Condition Factor	80	0.91	0.05	0.80	1.18

Length/Weight Relationship - Weight=0.008057Length^{3.04439}
 R²=0.98334

E.ii.1

1993 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Charlo SEC
 SAMPLING DATE - May 11, 1993
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Nepisiquit R.
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	79 98.8	0 0	0 0	1 1.3	0 0	0 0	0 0	0.1
Left Pectoral	80	80 100	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Dorsal	80	7 8.8	4 5.0	0 0	21 26.3	0 0	48 60.0	0 0	1.5
Right Ventral	80	78 97.5	0 0	0 0	2 2.5	0 0	0 0	0 0	0.1
Left Ventral	80	79 98.8	0 0	0 0	1 1.3	0 0	0 0	0 0	0.1
Upper Caudal	80	71 88.8	1 1.3	1 1.3	5 6.3	1 1.3	0 0	1 1.3	0.6
Lower Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	2.2

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	9	11.3	9	11.3
Excellent	59	73.8	68	85.0
Very Good	7	8.8	75	93.8
Good	4	5.3	79	98.8
Poor	1	1.3	80	100.0
Very Poor	0	0.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	7.42	0.54	6.00	8.80
Weight in grams	78	4.48	1.09	2.10	8.00
Condition Factor	78	1.08	0.10	0.79	1.62

Length/Weight Relationship - Weight=0.00896Length^{3.09198}
 $R^2=0.87326$

E.ii.2

1993 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Charlo SEC
 SAMPLING DATE - May 11, 1993
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Restigouche - Main Hatchery Tank #7
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0
Left Pectoral	80	76 95.0	4 5.0	0 0	0 0	0 0	0 0	0 0	0
Dorsal	80	13 16.3	32 40.0	0 0	31 38.8	0 0	4 5.0	0 0	0
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.9
Upper Caudal	80	72 90.0	3 3.8	5 6.3	0 0	0 0	0 0	0 0	0
Lower Caudal	80	76 95.0	1 1.3	3 3.8	0 0	0 0	0 0	0 0	0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	2.2

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	38	47.5	38	47.5
Excellent	36	45.0	74	92.5
Very Good	5	6.3	79	98.8
Good	0	0.0	79	98.8
Poor	1	1.3	80	100.0
Very Poor	0	0.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	6.85	0.51	5.90	8.40
Weight in grams	80	3.51	0.88	2.00	6.30
Condition Factor	80	1.07	0.07	0.90	1.23

Length/Weight Relationship - Weight=0.008370Length^{3.12728}
 $R^2=0.92291$

E.ii.3

1993 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Charlo SEC
 SAMPLING DATE - May 11, 1993
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Restigouche R.
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Pectoral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.1
Dorsal	80	0 0	1 1.3	0 0	32 40.0	0 0	47 58.8	0 0	0.5
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	79 98.8	1 1.3	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	76 95.0	4 5.0	0 0	0 0	0 0	0 0	0 0	0.4
Lower Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	1.1

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	1	1.3	1	1.3
Excellent	75	93.8	76	95.0
Very Good	4	5.0	80	100.0
Good	0	0.0	80	100.0
Poor	0	0.0	80	100.0
Very Poor	0	0.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	7.32	0.72	6.00	8.90
Weight in grams	80	4.38	1.34	2.20	8.00
Condition Factor	80	1.08	0.07	0.93	1.33

Length/Weight Relationship - Weight=0.009625Length^{1.05915}
 $R^2=0.95922$

E.ii.4

1993 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Charlo SEC
 SAMPLING DATE - May 11, 1993
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Nepisiquit - Main Hatchery
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	79 98.8	0 0	0 0	1 1.3	0 0	0 0	0 0	0.1
Left Pectoral	80	74 92.5	4 5.0	0 0	0 0	1 1.3	1 1.3	0 0	0.2
Dorsal	80	1 1.3	0 0	0 0	22 27.5	0 0	57 71.3	0 0	1.7
Right Ventral	80	79 98.8	0 0	0 0	1 1.3	0 0	0 0	0 0	0.1
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	51 63.8	16 20.0	3 3.8	4 5.0	5 6.3	1 1.3	0 0	1.5
Lower Caudal	80	79 98.8	1 1.3	0 0	0 0	0 0	0 0	0 0	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	3.6

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative	Cumulative
			Frequency	Percent
Perfect	1	1.3	1	1.3
Excellent	46	57.5	47	58.8
Very Good	22	27.5	69	86.3
Good	9	11.3	78	97.5
Poor	2	2.5	80	100.0
Very Poor	0	0.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	6.98	0.69	5.60	8.50
Weight in grams	80	3.85	1.15	2.00	7.20
Condition Factor	80	1.10	0.09	0.94	1.38

Length/Weight Relationship - Weight=0.012796Length^{2.92204}
 $R^2=0.93682$

E.iii.1

1993 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 04, 1993
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - 4+ BKD Broodstock
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	9 11.3	49 61.3	13 16.3	0 0	3 3.8	1 1.3	5 6.3	2.4
Left Pectoral	80	7 8.8	30 37.5	16 20.0	3 3.8	15 18.8	1 1.3	8 10.0	3.2
Dorsal	80	0 0	0 0	4 5.0	54 67.5	18 22.5	3 3.8	1 1.3	1.3
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	79 98.8	1 1.3	0 0	0 0	0 0	0 0	0 0	0.0
Lower Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	7.0

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative	Cumulative
			Frequency	Percent
Perfect	0	0.0	0	0.0
Excellent	8	10.0	8	10.0
Very Good	35	43.8	43	53.8
Good	24	30.0	67	83.8
Poor	11	13.8	78	97.5
Very Poor	2	2.5	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	8.19	1.03	6.50	11.20
Weight in grams	80	6.22	2.86	2.30	15.10
Condition Factor	80	1.08	0.14	0.55	1.48

Length/Weight Relationship - Weight=0.008467Length^{3.10927}
 $R^2=0.85864$

E.iii.2

1993 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 04, 1993
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - Hatchery Return 4.1 m. Swede #8
 AGE - 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	IE N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	55 68.8	20 25.0	1 1.3	1 1.3	1 1.3	0 0	0 0	0.8
Left Pectoral	80	9 11.3	29 36.3	10 12.5	11 13.8	15 18.8	2 2.5	4 5.0	3.1
Dorsal	80	0 0	1 1.3	0 0	30 37.5	1 1.3	45 56.3	3 3.8	1.6
Right Ventral	80	6 82.5	3 3.8	0 0	4 5.0	6 7.5	0 0	1 1.3	0.7
Left Ventral	80	79 98.8	1 1.3	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	70 87.5	6 7.5	2 2.5	0 0	2 2.5	0 0	0 0	0.5
Lower Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	6.7

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	16	20.0	16	20.0
Very Good	26	32.5	42	52.5
Good	19	23.8	61	76.3
Poor	18	22.5	79	98.8
Very Poor	1	1.3	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	8.04	0.78	5.10	11.20
Weight in grams	80	6.06	1.73	2.90	12.50
Condition Factor	80	1.15	0.15	0.78	2.19

Length/Weight Relationship - Weight=0.034543Length^{2.46804}
 R²=0.84807

E.iii.3

1993 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 04, 1993
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - Hatchery Return 11 m. Swede #27
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	5 6.3	45 56.3	26 32.5	4 5.0	0 0	0 0	0 0	2.3
Left Pectoral	80	11 13.8	43 53.8	23 28.8	3 3.8	0 0	0 0	0 0	2.1
Dorsal	80	0 0	0 0	1 1.3	38 47.5	21 26.3	12 15.0	8 10.0	1.6
Right Ventral	80	80 0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	78 97.5	0 0	0 0	0 0	0 0	0 0	0 0	0.1
Lower Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	6.1

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	9	11.3	9	11.3
Very Good	39	48.8	48	60.0
Good	29	36.6	77	96.3
Poor	3	3.8	80	100.0
Very Poor	0	0.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	9.83	1.13	8.00	12.20
Weight in grams	80	11.18	3.80	4.50	19.90
Condition Factor	80	1.14	0.11	0.88	1.60

Length/Weight Relationship - Weight=0.013828Length^{2.91253}
 R²=0.92834

E.iii.4

1993 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 04, 1993
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - 7.4 m. Circular #7
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	14 17.5	46 57.5	15 18.8	0 0	3 3.8	0 0	2 2.5	2.1
Left Pectoral	80	20 25.0	42 52.5	7 8.8	5 6.3	6 7.5	0 0	0 0	1.9
Dorsal	80	0 0	18 22.5	4 5.0	36 45.0	19 23.8	2 2.5	1 1.3	1.1
Right Ventral	80	79 98.8	0 0	0 0	1 1.3	0 0	0 0	0 0	0.1
Left Ventral	80	80 0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	76 95.0	3 3.8	0 0	1 1.3	0 0	0 0	0 0	0.2
Lower Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	5.3

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	6	7.5	6	7.5
Excellent	15	18.8	21	26.3
Very Good	37	46.3	58	72.5
Good	17	21.3	75	93.8
Poor	5	6.3	80	100.0
Very Poor	0	0.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	8.17	0.58	7.00	10.40
Weight in grams	80	6.10	1.56	3.00	12.10
Condition Factor	80	1.10	0.11	0.61	1.41

Length/Weight Relationship - Weight=0.008270Length^{3.13252}
 $R^2=0.79005$

E.iii.5

1993 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 04, 1993
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Margaree - Lake-O-Law Upper Cages
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	IE N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	5 6.3	39 48.8	8 10.0	10 12.5	17 21.3	1 1.3	0 0	2.9
Left Pectoral	80	2 2.5	32 40.0	4 5.0	20 25.0	17 21.3	5 6.3	0 0	3.4
Dorsal	80	0 0	0 0	0 0	78 97.5	1 1.3	1 1.3	0 0	1.0
Right Ventral	80	72 90.0	4 5.0	2 2.5	1 1.3	0 0	1 1.3	0 0	0.3
Left Ventral	80	80 0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	76 95.0	3 3.8	1 1.3	0 0	0 0	0 0	0 0	0.2
Lower Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	7.8

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	5	6.3	5	6.3
Very Good	22	27.5	27	33.8
Good	30	37.5	57	71.3
Poor	22	27.5	79	98.8
Very Poor	1	1.3	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	15.79	1.50	13.00	20.90
Weight in grams	80	40.34	12.29	21.80	92.10
Condition Factor	80	1.00	0.10	0.81	1.46

Length/Weight Relationship - Weight=0.018351Length^{1.77893}
 $R^2=0.885$

E.iii.6

1993 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Margaree SEC
 SAMPLING DATE - May 04, 1993
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Lake-O-Law Lower Cage
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	0 0	36 45.0	0 0	19 23.8	12 15.0	5 6.3	0 0	3.3
Left Pectoral	80	0 0	35 43.8	5 6.3	20 25.0	9 11.3	11 13.8	0 0	3.5
Dorsal	80	0 0	0 0	0 0	71 88.8	0 0	9 11.3	0 0	1.1
Right Ventral	80	77 96.3	3 3.8	0 0	0 0	0 0	0 0	0 0	0.1
Left Ventral	80	79 98.8	1 1.3	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	74 92.5	5 6.3	0 0	0 0	1 1.3	0 0	0 0	0.3
Lower Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	8.2

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	0	0.0	0	0.0
Very Good	27	33.8	27	33.8
Good	25	31.3	52	65.0
Poor	27	33.8	79	98.8
Very Poor	1	1.3	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	15.66	1.35	12.00	20.90
Weight in grams	80	39.05	11.05	19.50	92.10
Condition Factor	80	1.00	0.08	0.82	1.21

Length/Weight Relationship - Weight=0.012271Length^{2.91308}
 $R^2=0.90466$

E.iv.1

1993 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - May 12, 1993
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - NW Miramichi - Swede #4
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	36 45.0	23 28.8	14 17.5	0 0	5 6.3	0 0	2 2.5	1.6
Left Pectoral	80	41 51.3	23 28.8	9 11.3	1 1.3	3 3.8	0 0	3 3.8	1.4
Dorsal	80	0 0	1 1.3	0 0	5 6.3	0 0	72 90.0	2 2.5	1.9
Right Ventral	80	77 96.3	1 1.3	1 1.3	1 1.3	0 0	0 0	0 0	0.1
Left Ventral	80	78 97.5	0 0	1 1.3	0 0	0 0	1 1.3	0 0	0.1
Upper Caudal	80	59 73.8	3 3.8	9 11.3	1 1.3	7 8.8	0 0	1 1.3	1.3
Lower Caudal	80	79 98.8	0 0	0 0	0 0	0 0	0 0	1 1.3	0.1
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	6.5

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	18	22.5	18	22.5
Very Good	31	38.8	49	61.3
Good	16	20.0	65	81.3
Poor	12	15.0	77	96.3
Very Poor	3	3.8	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	6.61	0.61	5.50	8.50
Weight in grams	80	3.23	1.05	1.60	6.80
Condition Factor	80	1.08	0.11	0.78	1.38

Length/Weight Relationship - Weight=0.006243Length^{3.28886}
 $R^2=0.89723$

E.iv.2

1993 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - May 12, 1993
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Dungarvon Pond #7
 AGE- 1+ Parr

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	16 20.0	9 11.3	18 22.5	5 6.3	26 32.5	1 1.3	5 6.3	3.3
Left Pectoral	80	37 46.3	10 12.5	9 11.3	3 3.8	17 21.3	0 0	4 5.0	2.2
Dorsal	80	1 1.3	2 2.5	0 0	4 5.0	1 1.3	72 90.0	0 0	1.9
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	55 68.8	3 3.8	12 15.0	0 0	10 12.5	0 0	0 0	1.5
Lower Caudal	80	76 95.0	1 1.3	2 2.5	0 0	1 1.3	0 0	0 0	0.3
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	9.1

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	6	7.5	6	7.5
Very Good	18	22.5	24	30.0
Good	20	25.0	44	55.0
Poor	28	35.0	72	90.0
Very Poor	8	10.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	6.27	0.58	5.20	7.70
Weight in grams	80	2.84	0.86	1.50	5.30
Condition Factor	80	1.12	0.11	0.83	1.50

Length/Weight Relationship - Weight=0.009485Length^{3.09015}
 $R^2=0.89099$

E.iv.3

1993 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - May 12, 1993
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - Dungarvon - Swede #3
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	1 1.3	2 2.5	0 0	23 28.8	2 2.5	51 63.8	1 1.3	5.2
Left Pectoral	80	0 0	4 5.0	0 0	29 36.3	2 2.5	44 55.0	1 1.3	5.1
Dorsal	80	0 0	0 0	0 0	11 13.8	0 0	69 86.3	0 0	1.9
Right Ventral	80	44 55.0	3 3.8	1 1.3	4 5.0	7 8.8	14 17.5	7 8.8	2.4
Left Ventral	80	64 80.0	1 1.3	1 1.3	1 1.3	3 3.8	8 10.0	2 2.5	1.1
Upper Caudal	80	28 35.0	8 10.0	4 5.0	14 17.5	16 20.0	4 5.0	6 7.5	3.5
Lower Caudal	80	42 52.5	7 8.8	2 2.5	9 11.3	9 11.3	3 3.8	8 10.0	3.6
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	22.8

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	0	0.0	0	0.0
Very Good	0	0.0	0	0.0
Good	0	0.0	0	0.0
Poor	13	16.3	13	16.3
Very Poor	67	83.8	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	15.04	1.40	11.50	20.70
Weight in grams	80	37.10	9.81	14.80	89.90
Condition Factor	80	1.07	0.07	0.93	1.31

Length/Weight Relationship - Weight=0.025825Length^{2.67434}
 $R^2=0.95151$

E.iv.4

1993 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
SAMPLING DATE - May 12, 1993
SPECIES - Atlantic Salmon
TYPE OR ORIGIN - Miramichi Ressource Development Committee Kelts- Swede #5
AGE- 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	14 17.5	10 12.5	0 0	23 28.8	1 1.3	32 40.0	0 0	3.9
Left Pectoral	80	15 18.8	12 15.0	0 0	24 30.0	1 1.3	27 33.8	1 1.3	3.7
Dorsal	80	0 0	0 0	0 0	4 5.0	0 0	74 92.5	2 2.5	2.0
Right Ventral	80	23 28.8	0 0	0 0	1 1.3	4 5.0	48 60.0	4 5.0	4.3
Left Ventral	80	21 26.3	0 0	0 0	1 1.3	4 5.0	50 62.5	4 5.0	4.4
Upper Caudal	80	16 20.0	0 0	8 10.0	6 7.5	26 32.5	9 11.3	15 18.8	5.0
Lower Caudal	80	57 71.3	2 2.5	0 0	1 1.5	0 0	10 12.5	10 12.5	2.6
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	25.8

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	0	0.0	0	0.0
Excellent	0	0.0	0	0.0
Very Good	0	0.0	0	0.0
Good	0	0.0	0	0.0
Poor	5	6.3	5	6.3
Very Poor	75	93.8	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	14.57	1.71	10.20	18.00
Weight in grams	80	34.31	10.10	12.30	59.70
Condition Factor	80	1.08	0.07	0.89	1.33

Length/Weight Relationship - Weight=0.021187Length^{2.74612}
 $R^2=0.97263$

E.iv.5

1993 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - May 12, 1993
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - NW Miramichi - Vernon Goodfellows Pond
 AGE - 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	1E N %	1R N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	71 88.8	6 7.5	0 0	2 2.5	0 0	1 1.3	0 0	0.3
Left Pectoral	80	63 78.8	14 17.5	0 0	3 3.8	0 0	0 0	0 0	0.5
Dorsal	80	3 3.8	36 45.0	0 0	31 38.8	0 0	10 12.5	0 0	0.6
Right Ventral	80	77 96.3	2 2.5	0 0	1 1.3	0 0	0 0	0 0	0.1
Left Ventral	80	79 98.8	1 1.3	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Lower Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	1.6

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Perfect	29	36.3	29	36.3
Excellent	38	47.5	67	83.8
Very Good	12	15.0	79	98.8
Good	1	1.3	80	100.0
Poor	0	0.0	0	0.0
Very Poor	0	0.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	17.30	1.18	13.20	20.50
Weight in grams	80	46.60	8.15	25.40	70.00
Condition Factor	80	0.89	0.06	0.77	1.10

Length/Weight Relationship - Weight=0.037266Length^{2.49795}
 $R^2=0.91385$

E.iv.6

1993 GULF REGION PARR/SMOLT QUALITY EVALUATION RESULTS

SAMPLING SITE - Miramichi SEC
 SAMPLING DATE - May 12, 1993
 SPECIES - Atlantic Salmon
 TYPE OR ORIGIN - NW Miramichi - Heath Steele Lake Cage
 AGE- 2+ Smolt

SUMMARY OF FIN SCORES FOR FISH SAMPLED

Fin Name	Total # Sampled	O N %	IE N %	IR N %	2E N %	2R N %	3E N %	3R N %	Mean Weighted Score
Right Pectoral	80	66 82.5	12 15.0	2 2.5	0 0	0 0	0 0	0 0	0.4
Left Pectoral	80	49 61.3	26 32.5	5 6.3	0 0	0 0	0 0	0 0	0.8
Dorsal	80	14 17.5	21 26.3	0 0	31 38.8	0 0	14 17.5	0 0	0.7
Right Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Left Ventral	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
Upper Caudal	80	79 98.8	1 1.3	0 0	0 0	0 0	0 0	0 0	0.0
Lower Caudal	80	80 100.0	0 0	0 0	0 0	0 0	0 0	0 0	0.0
All Fins Combined	NA	NA	NA	NA	NA	NA	NA	NA	2.0

SUMMARY OF OVERALL PARR/SMOLT QUALITY BASED UPON FIN SCORES

Quality	Frequency	Percent	Cumulative	Cumulative
			Frequency	Percent
Perfect	20	25.0	20	25.0
Excellent	40	50.0	60	75.0
Very Good	20	25.0	80	100.0
Good	0	0.0	80	100.0
Poor	0	0.0	80	100.0
Very Poor	0	0.0	80	100.0

SIZE STATISTICS

Variable	# Sampled	Mean	Std. Deviation	Minimum	Maximum
Forklength in cm.	80	16.03	1.62	9.60	18.70
Weight in grams	80	39.13	9.55	8.20	59.40
Condition Factor	80	0.93	0.06	0.77	1.18

Length/Weight Relationship - Weight=0.009626Length^{2.98489}
 R²=0.96472

