1997

FOURTEENTH
ANNUAL MEETINGS

ILULISSAT, GREENLAND

10-12 JUNE 1997

TABLE OF CONTENTS

REPORT OF THE

FOURTEENTH ANNUAL MEETING

OF THE

NORTH AMERICAN COMMISSION

10-12 JUNE 1997
ILULISSAT, GREENLAND

CHAIRMAN:	DR RAY B OWEN, JR. (USA)
VICE-CHAIRMAN:	MR PIERRE TREMBLAY (CANADA)
RAPPORTEUR:	MR KEN JONES (CANADA)
SECRETARY:	DR MALCOLM WINDSOR

NAC(97)9

CONTENTS

NAC(97)9

REPORT OF THE FOURTEENTH ANNUAL MEETING OF THE NORTH AMERICAN COMMISSION OF THE NORTH ATLANTIC SALMON CONSERVATION ORGANIZATION 10-12 JUNE 1997, ILULISSAT, GREENLAND

1. OPENING OF THE MEETING

1.1 The Chairman, Dr Ray B Owen Jr. (USA), opened the Fourteenth Annual Meeting of the North American Commission and welcomed delegates to Ilulissat.

1.2 A list of participants at the Fourteenth Annual Meeting of the Council and the Commissions is included on page 231 of this document.

2. ADOPTION OF THE AGENDA

2.1 The Commission adopted its agenda, NAC(97)8 (Annex 1).

3. NOMINATION OF A RAPPORTEUR

3.1 The Commission nominated Mr Ken Jones (Canada) as rapporteur.

4. REVIEW OF THE 1996 FISHERY AND ACFM REPORT FROM ICES ON SALMON STOCKS IN THE COMMISSION AREA

4.1 The representative of ICES, the Chairman of the ACFM, Mr Jean-Jacques Maguire, presented the scientific advice from ICES relevant to the North American Commission area (CNL(97)13) prepared in response to a request from the Commission at its Thirteenth Annual Meeting. The ACFM Report, which contains the scientific advice relevant to all Commissions, is included on page 181 of this document.

4.2 The representative of ICES provided a brief description of the 1996 fisheries in the Commission area. He noted that there were further reductions in quotas and seasons in the Canadian salmon fisheries and that hook and release only fisheries had been extended to more rivers in the Maritimes Region. He commented that Canadian landings increased by 12 per cent in 1996, although commercial landings dropped to only 81 tonnes due to quota reductions and licence retirements. He reported that the United States had no commercial salmon fisheries in 1996 and that angling was only permitted in the State of Maine and only on a hook and release basis. He commented that there were 542 salmon caught and released in the USA. He noted that there were 10 professional gillnet fishermen and 45 recreational gill net fishermen in the 1996 fishery at St Pierre et Miquelon, using 10,400m and 7,560m of gillnets, respectively.

4.3 The representative of ICES provided an overview of the status of stocks in the Commission area. He explained that the returns of 2SW salmon were near the lower end of the range of the twenty-five year time series. He commented that the returns of 2SW salmon to Labrador in 1995 and 1996 were, however, the highest in the time

series. He noted that 1SW returns increased in all areas from 1995. He pointed out that 2SW spawning requirements were exceeded in Newfoundland and approached in the Gulf of St Lawrence. He commented that 1996 could mark the end of a low in non-maturing 1SW salmon and an increase in 1SW maturing salmon. He noted a 44 per cent increase from 1995 in 1SW returns in the Commission area and added that this was 20 per cent higher than the average from the 1971-1996 period. He explained that returns of 2SW salmon were down by 10 per cent from 1995.

4.4 The representative of ICES noted that returns to most USA rivers were hatchery dependent. He stated that 32 of 85 assessed rivers in Canada exceeded their spawning requirements, but that 22 of the rivers achieved less than 50 per cent of their requirements. He used Figure 3.1.2.3 of the ACFM Report (CNL(97)13) to explain the pre-fishery abundance estimate of maturing and non-maturing salmon and to indicate the proportion of smolt that mature after 1 sea winter in the Commission area. He followed this up with graphic comparisons (Figures 3.1.2.1 and 3.1.2.2 of the ACFM Report) of returns of 1SW and 2SW spawners in various parts of the Commission area. He noted a steep increase in 1SW recruits in Labrador and the great distance between spawners and spawning requirements in the USA.

4.5 The representative of ICES summarized the effects of management measures taken since 1991 in the Canadian commercial salmon fisheries. He indicated that counts of salmon have increased in Newfoundland, commercial exploitation has been reduced in Labrador, closures resulted in the annual saving of 311 small and 7,195 large salmon on the Quebec Upper and Mid North Shores and a catch reduction of 20 per cent through quota and season reductions on the Quebec Lower North Shore. He noted a mean size increase in salmon in the Miramichi and Restigouche rivers that may have resulted from reduced commercial exploitation, but indicated that this was difficult to quantify because of the influence of other factors. He stated that 2SW returns were estimated to be lower in Quebec, the Atlantic coast of Nova Scotia, the Bay of Fundy and the USA, and that this was not consistent with the expected effects of the management measures.

4.6 The representative of ICES related that the spawning requirement is now considered as a conservation limit or minimum threshold below which a population should not fall. He indicated that there was a pre-fishery abundance reserve of 201,483 salmon required to meet the North American 2SW conservation limit. He noted the steady decline in potential recruits in a comparison of spawners and returns and showed a map of egg depositions in 1996 relative to conservation requirements in 85 assessed Canadian rivers (Figure 3.1.2.5 of the ACFM Report).

4.7 The representative of ICES reviewed catch options for the Commission area. He explained that catch options for 2SW salmon in 1998 were developed from 1997 estimates of pre-fishery abundance for 1SW non-maturing salmon. He noted that the pre-fishery abundance forecast for these salmon was 196,858 fish in 1997, which was below the spawner requirement of 201,483. He compared the thermal habitat index and spawners using Figure 4.2.2.1 from the ACFM Report, indicating that the latter was still dropping although the former has been rising since 1995. He displayed the prediction of the pre-fishery abundance using Figure 4.2.2.2 of the ACFM Report. He explained the table entitled “Catch Options for 1998 North American Fisheries” from

the text of the ACFM Report and cautioned that the probabilities had a cumulative nature (i.e. related to the probability of attaining that number of 2SW salmon equivalents or less). He said that a precautionary approach would use a probability of less than 50 per cent as indicated in that table. He provided an explanation of risk analysis using Figure 4.2.4.1 from the ACFM Report, which portrayed the risks of not meeting spawning requirements in at least one of six stock areas in the Commission area and the risk of severe under-escapement (i.e. less than 50 per cent of spawner requirement) in at least one of the six stock areas.

4.8 The representative of ICES discussed multi-year projections of salmon abundance. He indicated that projections of pre-fishery abundance of 1SW non-maturing salmon depend on winter marine habitat. He pointed to increased juvenile densities, greater 2SW escapement, increases in stocking and increases in smolt marine survival as signs that abundance may increase. He stated that the Atlantic coast of Nova Scotia and the Bay of Fundy would be exceptions to this projection.

4.9 The representative of ICES noted research requirements, which were improved habitat surveys in Labrador and Ungava, a study of changes in the biological characteristics of returns to rivers, spawning stocks and total recruits prior to fisheries, estimates of wild smolt-to-adult survival in Labrador, New Brunswick and Nova Scotia and improved estimates of unreported catches.

4.10 The representative of the United States asked if the bottom panel of Figure 4.2.4.1, depicting risk of severe under-escapement, reflects the situation in the USA in particular. He also asked which of the six stock areas was most under its target.

4.11 The representative of ICES used Figure 3.1.1.2 to show that Newfoundland and the Gulf areas met or were close to achieving their spawning targets, but other areas such as Labrador and Quebec were under their targets and the small scale of the USA stocks made comparison difficult.

4.12 The representative of the United States accepted this explanation but noted that the risk analysis figure showed the substantial risk of being below the spawning target.

4.13 The representative of ICES pointed out that the risk analysis figure was for catch options at Greenland only and explained the application of risk lines.

4.14 The representative of the United States suggested that, even so, there was a very high risk of spawners not returning due to fisheries and that lower returns were not consistent with an increase in marine survival. He asked why this was happening.

4.15 The representative of ICES stated that he did not know the answer to this question.

4.16 The representative of the United States noted that quotas have not come down as fast as stocks. He stated that the development of catch options is a major advance, as in the West Greenland Commission, as it frames discussions more clearly.

4.17 The representative of Canada asked for clarification of some of the advice. He noted that there appeared to be good results in attaining egg deposition requirements in

Newfoundland and Labrador and wondered if poor achievement of egg deposition requirements in some rivers were reflected in management measures such as closure in the Bay of Fundy rivers or in rejuvenation efforts in rivers (e.g. the Exploits and some rivers on the Quebec North Shore). He sought confirmation that returns of 1SW salmon increased in all regions since 1995 and if they were the highest in the time series. He wondered if this implied that more 2SW salmon would return in 1997. He noted that grilse and maturing 1SW salmon returns increased by 44 per cent in 1996 and wondered if this boded well for the future. He sought confirmation that 2SW spawners in Labrador were the highest and third highest in 1995 and 1996 respectively since 1971 after declining from 1980 to a record low in 1991. He wondered if the smolt survival of the 1995 cohort, which would return in 1997, was higher than in previous years and that it would help returns recover to historical levels.

4.18 The representative of ICES confirmed this information to be correct.

4.19 The representative of Canada indicated that there is still much that needs to be done, but that he is encouraged by these developments and would describe further what was done and what will be done in Canada.

5. REVIEW AND DISCUSSION OF THE 1997 CANADIAN AND US SALMON MANAGEMENT MEASURES AS THEY RELATE TO THE MANDATE OF THE COMMISSION AND TO THE FINDINGS OF THE ACFM REPORT FROM ICES

5.1 The representative of Canada referred to paper NAC(97)3 (Annex 2) which presented a summary of a Long Term Strategy and Management Plan for Rebuilding Labrador's Salmon Stocks.

5.2 The representative of Canada made a presentation, NAC(97)7 (Annex 3), on past and future Canadian conservation actions and indicated that he would make that presentation available to all Parties.

5.3 The representative of the United States stated that he was encouraged by the progress in Canada, but that he was still concerned about the effects of interceptory fisheries. He wondered why Canadian catches went up.

5.4 The representative of Canada explained that there were catch increases in the recreational and Aboriginal fisheries, which were largely a result of increased returns of grilse.

5.5 The representative of the United States noted that even though there might be as little as 50 USA salmon intercepted off Labrador, this was greater than the population left in some salmon rivers. He stated that the scale and depressed condition in some USA rivers has to be recognized. He remarked on the continued progress on negotiations in the West Greenland Commission and that negotiations should continue and improve in the North American Commission as well. He commented that the USA was not fully included among the stakeholders in the development of the Labrador

strategy and that there needs to be full discussion of actual regulatory measures within the Commission.

5.6 The representative of Canada responded that ideally Canada would like to continue to minimize the interception of USA salmon. He noted that a draft of the Labrador strategy had been submitted to the USA, a briefing had been given and they had the opportunity to provide comments. He stated that a final report had been forwarded upon its announcement.

5.7 The representative of the United States indicated his appreciation again for the positive actions taken by Canada to minimize its interceptory fishery and his desire to continue to have the opportunity to review and discuss the Canadian management action in the future.

5.8 The representative of Canada indicated that this would be the case.

5.9 The representative of the United States provided a description of protective measures for salmon in the USA. He noted that there had been a petition to list salmon under the endangered species legislation, which required a status review for various rivers. He stated that a working group had to define distinct stocks and that seven rivers in Maine were identified for listing based on scientific analysis. He noted that a review had to be conducted of several listing factors for potential impacts in respect of aspects such as habitat, overfishing, disease and predation and adequacy of regulatory control. He noted that the seven rivers accounted for only a small portion of the historic range of salmon. He remarked that there had been no commercial salmon fishery in the USA for several years and that very restrictive catch and release angling only was allowed in Maine and that they were continuing to study predation factors.

5.10 The representative of the United States noted the efforts by the State of Maine to develop a conservation plan for all of the seven rivers and that the State had a Task Force reviewing agriculture, aquaculture, forestry and recreational fishing in the river areas with a view to developing additional conservation measures. He stated that the plan has been completed and has been released for public comment. He pointed out that most elements of the plan have already been implemented and cited examples such as the catch and release only fishery.

5.11 The representative of the United States commented that there had been improvements in several stocks in the USA, but that stocks were still depleted. He commented that stocking had contributed to improved prospects and noted that adult returns had increased by 62 per cent in New England and that 1SW returns had increased by 25 per cent over the previous five year period. He remarked that actual numbers of returns are still very small and gave the example of a 14 per cent increase in returns in one river, which amounted to an increase from only 56 to 64 fish. He stated that he expected some improvement in returns with the improvement in the marine habitat index.

6. ST PIERRE ET MIQUELON SALMON FISHERIES

6.1 The Secretary introduced a paper, NAC(97)4 (Annex 4), providing catch statistics for the salmon fisheries on St Pierre et Miquelon. The catch provided to NASCO for 1996 was 1,568 kg (670 salmon), an increase from the catch of 837 kg in 1995. As in previous years, the Commission recognized the discrepancy between the statistics provided by the Ministère de l'Agriculture et de la Pêche in Paris and those provided to ICES. The ICES figure was 1,510 kg. The Secretary will seek clarification on the reasons for the difference.

6.2 The representative of Canada noted that he was also the representative of Canada in the Advisory Group for the Canada-France Fisheries Agreement and he would address the data deficiencies at the next Canada-France meeting. He remarked that there had been good progress in improving the monitoring of the harvest at St Pierre et Miquelon and there had been a protocol developed with the reopening of the cod fishery. He commented that the high returns of grilse in 1996 may have been a factor in the increased catches of salmon in the fishery at St Pierre et Miquelon and that Canada would explore this issue and others in its bilateral meeting later this year.

7. REPORT OF THE NAC SCIENTIFIC WORKING GROUP ON SALMONID INTRODUCTIONS AND TRANSFERS

7.1 The Co-Chairman of the NAC Scientific Working Group on Salmonid Introductions and Transfers, Mr Rex Porter (Canada), presented a report on the activities of the Group in 1996/97, NAC(97)6, (Annex 5).

7.2 Mr Porter stated that he would like the Commission to approve the format of a consolidation of protocols as outlined in his report, the production of a pocket-sized version of the protocols as well as the contents of the report.

7.3 The Commission gave unanimous approval to the reports and the elements for which Mr Porter sought approval.

7.4 The representative of Canada expressed concern about the continued use of the European strain "Land catch" in US marine cage culture, contrary to the Protocol, and he indicated increasing pressure for its use within Canada. The US representative acknowledged this concern and also noted the current holding of this strain in quarantine in New Brunswick. He suggested a joint meeting with participation of the aquaculture industry to devise a strategy to discontinue use of this strain. The representative of Canada agreed.

8. RECOMMENDATIONS TO THE COUNCIL ON THE REQUEST TO ICES FOR SCIENTIFIC ADVICE

8.1 The Commission reviewed the relevant sections of document SSC(97)4 and agreed to recommend them to the Council as part of the annual request to ICES for Scientific Advice. The request to ICES agreed by the Council, CNL(97)50, is contained in Annex 6.

9. ANNOUNCEMENT OF THE TAG RETURN INCENTIVE SCHEME PRIZE

9.1 The Chairman announced that the draw for prizes in the Tag Return Incentive Scheme was made by the Auditors at NASCO Headquarters on 29 May 1997. The winner of the Commission's $1,500 prize was Mr Simon LeBouthillier of Sheila, New Brunswick. The Commission offered its congratulations to the winner.

10. OTHER BUSINESS

10.1 There was no other business.

11. DATE AND PLACE OF THE NEXT MEETING

11.1 The Commission agreed to hold its next meeting during the Fifteenth Annual Meeting of the Council, 8-12 June 1998, in Edinburgh.

12. CONSIDERATION OF THE DRAFT REPORT OF THE MEETING

12.1 The Commission agreed a draft report of the meeting, NAC(97)5.

ANNEX 1

NAC(97)8

Fourteenth Annual Meeting of the
North American Commission
10-12 June 1997
Hotel Arctic, Ilulissat, Greenland

Agenda

1. Opening of the Meeting

2. Adoption of the Agenda

3. Nomination of a Rapporteur

4. Review of the 1996 Fishery and ACFM Report from ICES on Salmon Stocks in the Commission Area

5. Review and Discussion of the 1997 Canadian and US Salmon Management Measures as they relate to the Mandate of the Commission and to the Findings of the ACFM Report from ICES

6. The St Pierre et Miquelon Salmon Fisheries

7. Report of the NAC Scientific Working Group on Salmonid Introductions and Transfers

8. Recommendations to the Council on the Request to ICES for Scientific Advice

9. Announcement of the Tag Return Incentive Scheme Prize

10. Other Business

11. Date and Place of the Next Meeting

12. Consideration of the Draft Report of the Meeting

ANNEX 2

NORTH AMERICAN COMMISSION

NAC(97)3

LONG-TERM STRATEGY AND MANAGEMENT PLAN FOR REBULDING LABRADOR'S SALMON STOCKS (TABLED BY CANADA)

NAC(97)3

NR-HQ-97-26 April 25, 1997

NEWS RELEASE

LONG-TERM STRATEGY AND MANAGEMENT PLAN FOR REBULDING LABRADOR'S SALMON STOCKS (TABLED BY CANADA)

St John's - Fred Mifflin, Minister of Fisheries and Oceans, today released the 1997-1998 management plan and a long-term strategy for the Labrador salmon fishery.

The strategy, which builds on the consensus reached during extensive consultations with stakeholders, focuses on restoring stocks to historical levels and ensuring sustainable use of this valuable resource. A Labrador Salmonid Advisory Board, which will be established shortly to represent all salmon user-groups, will be central to the implementation of both the long-term strategy and the development of management plans.

"The 1997-98 management plan constitutes the beginning of a long-term, coordinated effort that will ensure the rebuilding of Labrador salmon stocks," Mr Mifflin said.

The principal components of the plan are as follows:

Commercial Fishery

To counter the decline in salmon stocks in the rivers in Zone 14.B (Labrador Strait of Belle Isle area from Point St Charles, near the Quebec-Labrador border, north to Table Head, St Peter's Bay) the commercial fishery will be closed in that area in 1997. The Government of Canada is considering the issue of alternatives for the 13 affected commercial fishermen.

Research indicates that the salmon stocks in Zones 1 and 2 should recover with continuation of a 50 t quota for the commercial fishery. Of that total, 14.4 tonnes are allocated to Zone 1 (Cape Chidley, south to Fish Cove Point), and 35.5 tonnes to Zone 2 (Fish Cove Point, south to Table Head).

For 1997, the commercial fishery in Zones 1 and 2 will open June 20 and close October 15. No new commercial salmon fishing licences will be issued. The policy of non-transfer of existing commercial licences will continue.

Aboriginal Fishery

The aboriginal people of Labrador will continue to access salmon in Zones 1 and 2 for food and ceremonial purposes through by-catch in existing trout and charr net fisheries. DFO will work with aboriginal groups to develop and implement effective monitoring programs to quantify the amount of salmon used for these purposes and to ensure that conservation measures are being met.

Recreational Fishery

The 1997 salmon angling season in Labrador will open June 21 and close September 14.

- In 1997, anglers will not be permitted to retain large salmon in Zone 14.B. (However, further discussions will be held with outfitters and provincial government officials about developing mechanisms for commercial outfitters in Zone 14.B to market a limited number of large salmon in 1997).

- Starting in 1998, for the purpose of retaining the season bag limit, the season in Zones 1 and 2 will be split at July 31 - a maximum of three fish to be retained up to July 31 (inclusive), and a maximum of three after July 31. These two zones will then be in conformity with Zone 14.B as well as the Island of Newfoundland.

- The possible introduction of quotas for outfitters camps throughout Labrador in 1998 will also be discussed with the provincial government and outfitters. (Camp quotas would improve outfitters' ability to market their product and would also place a cap on fish mortality).

- Recreational daily bag limits in Zones 1, 2 and 14.B remain unchanged at two fish retained and four caught and released. The seasonal bag limit of six fish retained is also unchanged. In Zones 1 and 2 anglers will continue to be permitted to retain one large salmon for the season.

The management plan will be subject to ongoing review by DFO and the Labrador Salmonid Advisory Board to ensure that conservation objectives are being met. The plan will be reviewed prior to the 1998 fishery, and revised if necessary.

Public consultation meetings were held in November, 1996, at L'Anse au Clair, Mary's Harbour, Charlottetown, Cartwright and Makkovik, followed by a final, comprehensive meeting at Happy Valley-Goose Bay.

"A significant degree of consensus was reached through the consultation process," Mr Mifflin said. "In particular it was recognized that we must have sound conservation practices and increased spawning escapement, while still maintaining some level of commercial harvest."

"It is clear that the Labrador salmon stocks are at low levels," the Minister stated. "However, the resource is not in crisis. Spawning populations are estimated to be at their highest level in over 20 years. The Labrador salmon resource is starting to rebuild."

The backgrounder related to this announcement is available on the automated Fax-On-Demand service of Fisheries and Oceans. It is immediately retrievable - to users with a touchtone phone and a fax machine - 24 hours a day, 7 days a week.

To retrieve, dial **1-416-362-1447** and follow the voice prompts.

NUMBER BACKGROUNDER

42 THE LABRADOR SALMON FISHERY

FOR MORE INFORMATION:

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This news release and related backgrounder are available on our web site at **http://www.ncr.dfo.ca/Home.htm**

B-HQ-97-26

BACKGROUNDER

THE LABRADOR SALMON FISHERY

There are four principal user-groups:

- Aboriginal: Aboriginal people in Labrador use salmon for food and ceremonial purposes and also constitute the majority of Labrador's commercial salmon fishers.

- Commercial fishers: There are 218 licensed commercial salmon fishers in Labrador, 43 of whom have joint salmon-Arctic char licences. (Commercial landings have declined from 853 tonnes in 1980, to 202 tonnes in 1990 and only 48 tonnes in 1996 when the commercial quota was 55 tonnes).

- Commercial outfitters in the recreational fishery: There are 14 commercial salmon outfitting camps, ranging from two-or-three-room operations to camps that can accommodate 10 or more guests at once. The camps generate an estimated 100 jobs.

- Recreational anglers: Recreational anglers include resident Labradorians - 1,127 in 1994 - and non-resident tourists - 553 in 1994 (non-resident tourists include out-of-province visitors and residents of insular Newfoundland).

Labrador salmon stocks have been declining for the past 10 years. This has been reflected in increasingly stringent conservation management measures adopted since 1992, including voluntary commercial licence buy-outs in 1992-93, which lowered the number of commercial fishers to 218 from 581, and progressive commercial quota reductions, from 295 tonnes in 1991 to 55 tonnes in 1996. Furthermore, there have been progressive reductions of recreational bag limits from 15 in 1990 to 6 in 1996. Similarly, there have been progressive reductions in allowable retention of large salmon from 15 in 1990 to 1 in 1996.

STOCK STATUS

There has been a significant increase in the number of returning spawners since 1991, which provides some grounds for optimism. However, the overall spawning stock of large salmon in Labrador was approximately 70 per cent of conservation requirements in 1995 and about 55 per cent in 1996. The long life cycle of Labrador salmon, seven years for grilse and eight years or more for multi-sea-winter salmon, means that it will be several years before the first results of increased spawning. Strong conservation measures are still required.

Stocks in Zone 14.B are in the most critical condition. Stocks in Zone 1 are low but not as critical. Reduced participation rates in the recreational and commercial fisheries should not have a serious effect on stock recovery in Zone 1. In Zone 2, stocks should recover if fish mortality is maintained at current levels and by-catch mortality is reduced.

THE LONG-TERM STRATEGY

The long-term strategy emphasizes the importance of working towards a consensus among user-groups and the sharing of conservation benefits among those who accepted the conservation restrictions.

The strategy has six principal objectives:

1. Rebuilding stocks and enhancing our understanding of them
   In particular, management measures will be implemented to increase spawning escapement and to enhance stock assessment research.

2. Meeting government's obligations to aboriginal peoples
   The strategy recognizes the importance of the commercial fishery to coastal aboriginal people. The Department of Fisheries and Oceans will work with aboriginal groups to monitor food fisheries and will involve them in cooperative programs to understand stock status.

3. Improving harvest management to ensure sustainability
   In addition to the announced measures in the commercial fishery, the strategy proposes: management measures designed to improve gear selectivity and reduce by-catches; reduction or closure of the commercial trout fishery; and, cooperation with the provincial government on a range of recreational fishery initiatives to lower angling mortality.

4. Maximising socio-economic benefits
   The strategy recognizes the socio-economic importance of the commercial salmon fishery to commercial fishers, and proposes the following measures:

   - introducing multi-year management plans to enhance stability in the fishery;

   - giving commercial salmon fishers priority access to emerging fisheries in other species in return for retiring their salmon licences;

   - assessing the feasibility of recreational salmon trolling as an alternative for commercial fishers;

   - pursuing alternative harvesting methods to enable commercial fishers to benefit from a rebuilt resource;

   - implementing a licence retirement program for Zone 14.B; and,

   - exploring alternative employment options for Zone 1 and 2 commercial fishers who suspend salmon fishing activities.

5. Increasing dialogue through partnerships
   The strategy proposes the following measures:

- pursuing with the provincial government the development of a protocol for the establishment of new outfitting lodges in the recreational fishery;

- involving local groups in the development of watershed management plans;

- establishing a Labrador Salmonid Advisory Board, with representation from all user-groups; and,

- pursuing initiatives to increase the awareness and participation of user-groups in salmon management planning and resource conservation.

6. Fulfilling Canada's obligations with respect to non-Labrador-origin salmon
The strategy recommends: representation for Labrador commercial fishers at North Atlantic Salmon Conservation Organization meetings; continued work to reduce interceptions of non-Labrador-origin salmon; and, increased knowledge of interceptions.

APRIL 1997

Copies of the long-term strategy are available from:

Berkley Slade
Staff Officer - Recreational Fisheries
St John's
(709) 772-2643

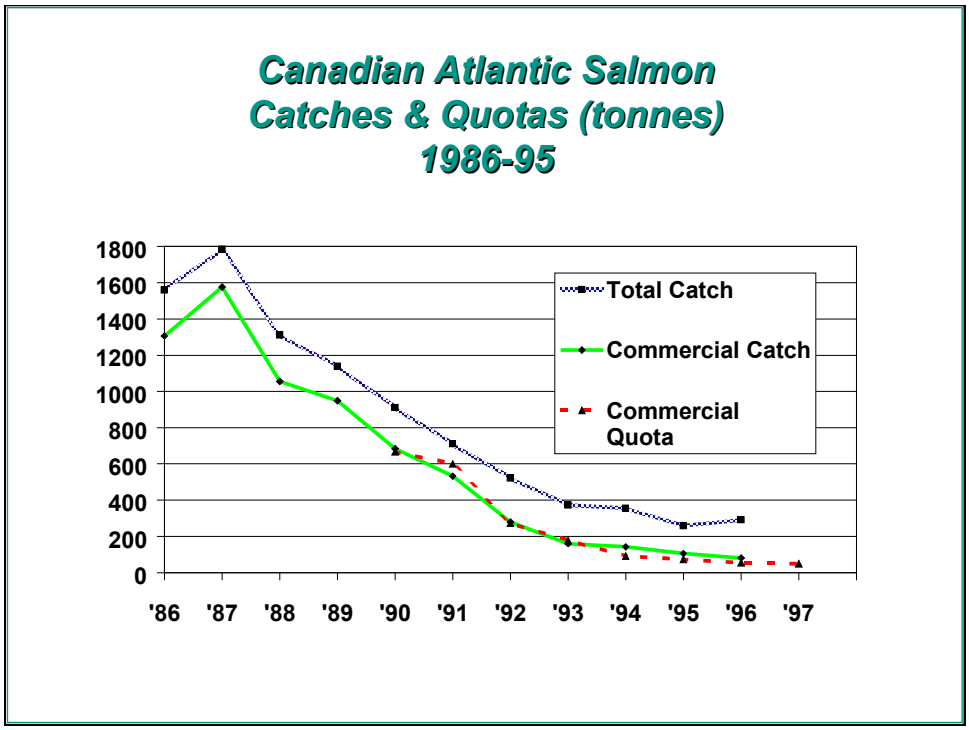
Bill Hickey
Director - Communications
St John's
(709) 772-0410

ANNEX 3

NORTH AMERICAN COMMISSION

NAC(97)7

CANADIAN CONSERVATION ACTIONS FOR ATLANTIC SALMON

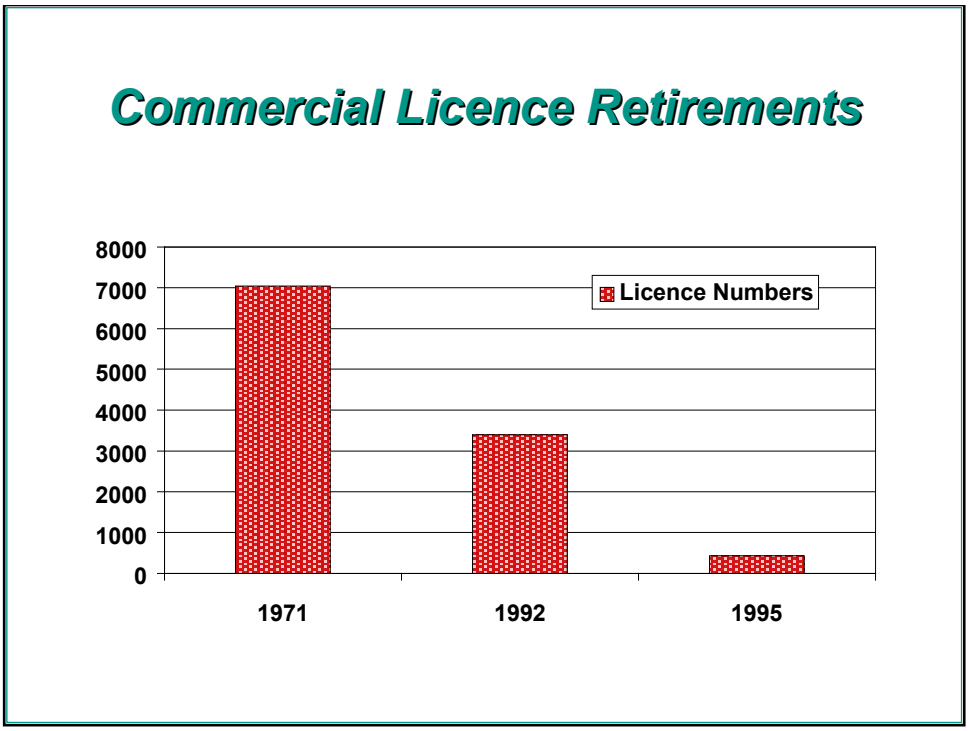


Catches have fallen considerably since 1987, when 1,784t was taken in all Canadian Atlantic salmon fisheries. Catches of more than 2,000t were not uncommon in recent decades and a catch of over 2,800t occurred in 1967.

Catch declines result both from a decline in salmon stocks and a number of conservation measures introduced since the early '70s.

For example, quotas, as depicted on the graph, were introduced in 1990 in Newfoundland & Labrador and have decreased each year from 667t to 50t in 1997.

Quebec quotas are in terms of number of fish assigned to each licence and have not been depicted on the graph as total weight may vary. For this reason, the commercial catch on the graph exceeds the quota in some years. Quebec quotas have also dropped, e.g, from a total of 33,125 salmon in 1989 to 12,068 in 1996.



The permanent retirement of commercial salmon fishing licences is one of the most important and expensive conservation actions taken in Canada.

Between 1972 and 1987, there were over 3,600 full- and part-time licences retired at cost of $28 million.

Programs between 1992 and 1994 resulted in the retirement of 2,965 (87%) of the remaining 3,394 licences at a cost of over $43 million.

Of 430 licences left, only 306 were in areas open to fishing in 1996 (218 in Labrador & 90 in Quebec). With the closure of the Labrador Straits in 1997, there will be less than 300 licence holders that can still fish.

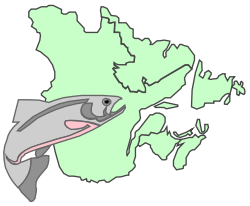
There are about 100 licences left in insular Newfoundland; but that commercial fishery remains closed.

Before licence retirement in 1992-93, there were 570 commercial salmon licences in Labrador. There are now 218 and 13 of these will be removed with the closure of the fishery in the Labrador Straits in 1997.

In Quebec, there were 185 commercial salmon licences in 1989 and there are about 90 now remaining in the fishery.

Importance of the Remaining Commercial Salmon Fisheries in Labrador and Quebec

- ***Important as a commercial and native food fishery.***
- ***Few economic and employment alternatives.***
- ***Mixed species fishery (with char) in the north.***
- ***Needed to supplement other fisheries in the south.***
- ***Closure or drastic cuts could affect land claims negotiations with Inuit and Innu at critical stage.***
- ***Provides a "yardstick" to measure salmon returns and mortality.***



218 fishers, mainly Inuit (40-45), Innu(4-5) and Metis (about 150), participate in the Labrador commercial fishery and about 90 fishers are active on the Lower North Shore.

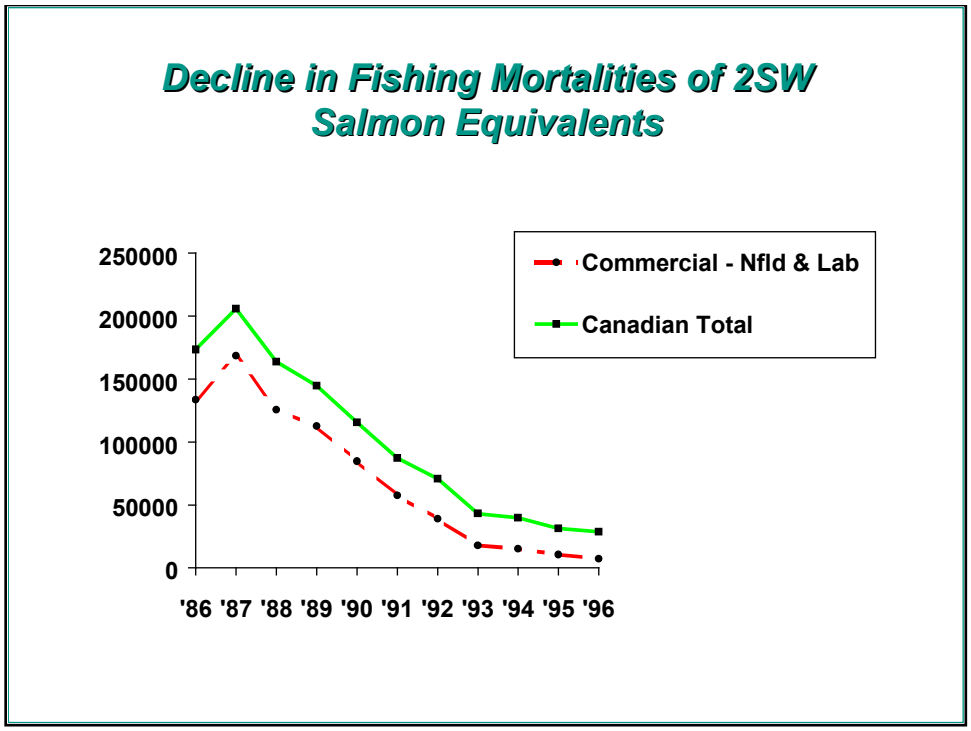
Although the landed value of salmon is quite low ($300-400K in Labrador), there are few employment alternatives in the north and some southern fishers need the fishery to supplement their other fisheries.

The salmon is processed at fish plants along the coast before it goes to market. Much of it goes to Montreal.

A closure of the commercial fishery would result in more than just calls for compensation. An Aboriginal food fishery could be requested and its creation could affect the existing recreational fishery over which it would have precedence.

Negotiations are ongoing with the Labrador Inuit Association on fisheries matters as part of the land claim negotiations. Likewise, negotiations on these matters are scheduled to begin with the Innu during the first week in July. Any major change to the commercial fishery could jeopardize these negotiations at a critical stage.

Finally, any closure or drastic reduction would likely be followed by protest and illegal fisheries that could result in unknown salmon mortalities as high as in a regulated fishery.



The Labrador commercial fishery accounted for only 7,193 of the the 28,553 2SW salmon equivalent mortalities in 1996. This is only 25% of the total North American mortalities. Terminal fisheries, including the commercial fishery in Quebec, accounted for 75%.

This is a vast change from 1986, when the Newfoundland and Labrador commercial fisheries accounted for as much as 80% of the fishing mortalities of 2SW salmon equivalents.

The Quebec fisheries accounted for 63% of the North American salmon mortalities. Of these, over 20% were from Native food fisheries, over 40% were from angling and about 35% were from commercial fishing.

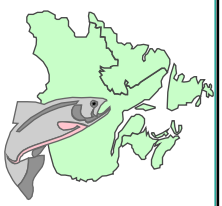
ICES estimates that between 60-80% of the Labrador commercial catch of both 1SW and 2SW salmon is of Labrador origin.

Based on stock composition information from before 1992 when the fishery was much bigger and the 1996 quota of 55t, the estimated harvest of non-Labrador origin salmon in the Labrador commercial fishery would have been 1,400-2,900 small salmon and 2,000-4000 large salmon. This would represent less than 1% of the production of non-Labrador origin small salmon and 3% of the production of non-Labrador origin large salmon.

Based on 1995 ICES Working Group data on the average number of U.S. origin salmon caught per tonne of salmon (large and small) in Labrador from 1985-89, there would have been about 50 U.S. salmon caught if the 55t was taken.

New Conservation Actions for 1997 and Beyond

- ***Closure of the commercial salmon fishery in the Labrador Straits***
- ***Maintenance of commercial salmon closure for insular Newfoundland***
- ***No retention of large, angled salmon in rivers feeding into the Labrador Straits***
- ***Adoption of a Long-term strategy to rebuild Labrador salmon stocks***
- ***Manage each watershed more effectively***



1997 Labrador Management Plan

Announcement of Management Plan and Long-Term Strategy for Labrador salmon stocks on April 25, 1997.

Closure of Labrador Straits commercial fishery (13 fishers). Quota cut to 50t; a level which should enable stock recovery.

The commercial fishery opening will be delayed to June 20 again in 1997.

Work will be done with aboriginal groups to monitor salmon by-catches in trout and char net fisheries.

No or very limited retention of large salmon in angling fishery in Labrador Straits (SFA 14B) watersheds. As in the rest of the Province, the adoption of a split tag system (i.e., 3 tags for up to July 31 and 3 for after that date) to reduce effort and catches early in the season.

Quebec

Quebec will continue to administer many (80%) of its rivers using ZECs and government and outfitting wildlife reserves. They will still use total allowable catches for each river where there is good scientific information.

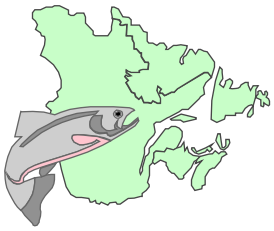
For rivers where stocks are being restored, large salmon retention will continue to be limited or prohibited. Some fishing activity will be retained in many instances, because it is an effective means to control poaching.

Stocking is being carried out in 28 rivers and the NASCO protocols on this are being fully respected.

A workshop will be held this fall to review the conservation requirements on all rivers and the procedures used to estimate returns and spawners. The approach will use updated information on biological characteristics and exploitation rates on an area-by-area basis.

Long Term Strategy for Rebuilding Labrador's Salmon

- ***Rebuild stocks and enhance our understanding of them***
- ***Meet obligations to aboriginal peoples***
- ***Improve harvest management to ensure sustainability***
- ***Maximize socio-economic benefits***
- ***Increase dialogue through partnerships***
- ***Fulfill Canada's obligations respecting non-Labrador origin salmon management and conservation***



1. Rebuild stocks through increased spawning escapement by reducing fishing mortality for large salmon in particular (e.g., closure of Labrador Straits fishery, by-catch reduction and ensuring no increase in fishing mortality in the rest of Labrador.)

Increase our understanding by adding to the stock and habitat assessments and information available for Labrador, through studies, improved monitoring and sampling.

2. Meet our aboriginal obligations by monitoring lands claims developments and working with aboriginal people to develop and implement effective monitoring of salmon used for food, social and ceremonial purposes.

3. Manage to ensure sustainability by measures that include a fishery closure in the Labrador Straits, a low-level commercial fishery in the rest of Labrador, the development of measures to reduce by-catch in trout and char food fisheries, a gear selectivity study during the 1997 season.

4. Maximize socio-economic benefits by seeking alternative employment options and fisheries, alternative fishing techniques and implementing a commercial licence retirement program for the Labrador Straits.

5. Improve dialogue by establishing a Labrador Salmon Advisory Board and better involving all stakeholders in management.

6. Meet our international consultations by continuing negotiations to reduce the impact of the West Greenland fishery on Labrador stocks, conducting studies to better understand the magnitude of interceptions of non-Labrador origin salmon in the Labrador commercial fishery, and pursuing alternative harvesting strategies to reduce the interception of non-Labrador origin salmon.

We can already report substantial progress under item 3 above, with the 1997 closure of much of the commercial trout fishery in southern Labrador, and gear reductions and a one week reduction in the season of the remaining commercial and food net trout fisheries.

ANNEX 4

NORTH AMERICAN COMMISSION

NAC(97)4

THE ST PIERRE ET MIQUELON SALMON FISHERIES

NAC(97)4

THE ST PIERRE ET MIQUELON SALMON FISHERIES

1. At its Seventh Annual Meeting the Commission requested the Secretary to pursue efforts to obtain information about the salmon fisheries on St Pierre et Miquelon. In accordance with this request we have contacted the Ministère de l'Agriculture, de la Pêche et d'Alimentation in Paris annually with a view to obtaining information on the salmon fisheries according to the format agreed by the North Atlantic Salmon Working Group (CM1988/Assess:16 and CM1988/M:4).

2. We have now received provisional catch data for 1996. The official time series of information as provided by the Ministère de l'Agriculture, de la Pêche et d'Alimentation is therefore as follows:

	Number	Weight (Tonnes)
1987	442	0.984
1988	813	2.084
1989	971	2.590
1990	884	1.889
1991	573	1.132
1992	1049	2.319
1993	1439	2.943
1994	1656	3.423
1995	364	0.837
1996	670	1.568

3. The breakdown of the catch was 380 salmon (951 kg) in the commercial fisheries and 290 salmon (617 kg) in the recreational fisheries. This is an increase of 87% compared to 1995 but is below the ten year mean catch of 1.977 tonnes. At its Tenth Annual Meeting the Commission recognised a discrepancy between the official statistics provided by the French Government to NASCO and those provided to ICES. This discrepancy had been raised with the French authorities but to date I have not received any clarification. This year there is again a discrepancy between the ICES figure (1510 kg) and that provided to NASCO (1568 kg). The difference is small and is due mainly to a difference in the reported catch in the recreational fisheries.

4. In previous years the Commission has discussed the question of membership of France (in respect of St Pierre et Miquelon) in NASCO. The representative of Canada has referred to an agreement between Canada and France concerning St Pierre et Miquelon under which it was agreed that there would be no increase in the catch of salmon originating in other countries' rivers without the consent of the other country.

5. The catch at St Pierre et Miquelon in 1996 is not above the long term (10 year) average but did increase in 1996 compared to 1995. Last year, the Commission

considered a regulatory measure for the mixed stock fishery in the North American Commission area, NAC(96)7, but was unable to reach agreement on the proposal. There is therefore no regulatory measure concerning allowable harvests in place in the Commission area. The Commission might therefore like to consider whether it wishes to pursue further the question of membership of France (in respect of St Pierre et Miquelon) or whether it considers the present bilateral arrangement to be satisfactory. On 14 August 1996, France (in respect of St Pierre et Miquelon) became a member Party of NAFO.

Secretary
Edinburgh
15 May 1997

ANNEX 5

NORTH AMERICAN COMMISSION

NAC(97)6

REPORT OF ACTIVITIES 1996/97

NAC SCIENTIFIC WORKING GROUP ON SALMONID INTRODUCTIONS AND TRANSFERS

NAC(97)6

REPORT OF ACTIVITIES 1996/1997

NAC SCIENTIFIC WORKING GROUP ON SALMONID INTRODUCTIONS AND TRANSFERS

Members:

Rex Porter (Canada Co-chair)
Tim Carey (Canada)
Gil Farmer (Canada)
Dan Kimball (USA Co-chair)
Chris Mantzaris (USA)
Mary Colligan (USA)

The Scientific Working Group met twice during this reporting period: on February 4, 1997 in Halifax, Nova Scotia and May 21-23, 1997 in St John's, Newfoundland to respond to the current Request for Scientific Advice, NAC(96)9. The purposes of the meetings were to: 1) develop recommendations for the 1998 revision of the protocols and prepare a progress report; 2) review and update the inventory of introductions and transfers of salmonids within the NAC area; and 3) review the latest genetic and fish health information relative to potential changes in the NAC Protocols.

1) Inventory of Introductions and Transfers of Salmonids in the Commission Area

Reports of the 1996 (and some 1997) introductions and transfers of salmonids were received from agencies responsible for authorizing shipments of salmonids within the NAC area of Canada and the United States. Information was entered into the database, which extends back to 1986, and is displayed in Attachment #1. Introductions and transfers of salmonids occurred in the states of Maine, New Hampshire and Rhode Island and the six Canadian provinces with drainages into the Atlantic Ocean (Ontario, Quebec, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland). A brief summary of the recent introductions and transfers that crossed state or provincial borders follows:

Species	Number of Eggs or Fish Transferred	Number of Shipments
Rainbow trout	7,570,300	50
Atlantic salmon	5,008,500	49
Brook trout	1,190,850	14
Arctic charr	590,110	9
Coho salmon	320,000	2

All transfers appear to meet the intent of the protocols. The majority of the 1996 transfers were of rainbow trout and Atlantic salmon. Notable were the numbers of Atlantic salmon (2,430,300) transferred to New Brunswick from New Hampshire, Maine, Prince Edward

Island, and Nova Scotia for aquaculture purposes. Also notable were the numbers of rainbow trout eggs (6,744,000) that were transferred to Nova Scotia, Newfoundland, Ontario, and Quebec for aquacultural purposes. Both Quebec and Nova Scotia received rainbow trout eggs from west of the Continental Divide (state of Washington). The facility providing these eggs has had a history of disease-free status and therefore meets the requirements of the protocols.

Not yet listed in the 1996 database is the transfer from Maine to New Brunswick of 300,000 eggs collected from the Landcatch (Mowi) strain of Atlantic salmon or the transfer from New Brunswick to Prince Edward Island of milt collected from transgenic Atlantic salmon. These projects are currently being conducted in quarantine facilities and will be listed in the next update of the database for 1997 transfers.

2) Progress and Recommendations on Revision and Consolidation of NAC Protocols

The Scientific Working Group developed an outline (Attachment 2) for the consolidated Revised NAC Protocols that will be presented to the Commission at the 1998 meeting. The objective of the Scientific Working Group in developing the attached outline is to provide a more compact and readable document by grouping like things together and eliminating format redundancy. **Recommendation: the Commission approve the format reflected by attached outline.** The Scientific Working Group believes that a pocket-sized summary of the protocols has value in facilitating on-site referencing of the protocols by the agency staffs and aquaculturists. **Recommendation: a pocket-sized summary of the consolidated protocols also be published.** At its 1996 Annual Meeting, NAC approved participation of the NASCO Secretariat in developing the Protocols. They are invited to attend the next meeting of the Scientific Working Group, scheduled tentatively for October 14-17, 1997 near Boston, Massachusetts.

The Scientific Working Group will develop a draft of the consolidated Revised NAC Protocols for comment by Commission members by December. The Revised NAC Protocols will be tabled for adoption at the June 1998 Commission Meeting.

The Scientific Working Group has three general issues to bring to the Commission's attention:

First Issue: transgenic salmonids. The Working Group recognizes that the intentional or unintentional release of transgenic salmonids could have serious adverse genetic and/or ecological effects on wild Atlantic salmon stocks. The Working group, therefore, recommends that the following be included be in the re-write of the NAC Protocols:

Reproductively viable transgenic salmon may only be introduced into land-based facilities where the possibility of escapement is minimal.

Transgenic salmonids used in marine or freshwater cage rearing operations are to be reproductively sterile. Testing should indicate a minimum of 95% reproductive sterility.

Proposals for cage rearing of transgenic salmonids should be forwarded to the NAC for review and comments prior to fish being put into freshwater or marine cages.

Second Issue: The increasing practice of freshwater/estuarine rearing of juvenile salmonids. This new practice in Canadian waters (uncertain as to status in USA waters) of producing juvenile salmon and trout in pens located in freshwater or estuaries may have potential impacts on salmon beyond land-based juvenile production practices. The Scientific Working Group will review this practice and follow up with proposed protocols if necessary.

Third issue: The possible need for a NAC database on aquaculture escapees encountered in salmon rivers. The Scientific Working Group is aware of some ICES requirements relative to reporting aquaculture escapees captured in rivers, but are not certain how extensively this data is reported. It is anticipated that monitoring of salmon rivers will significantly increase in the USA as a result of concern over the status of wild salmon stocks in eastern Maine rivers. The Scientific Working Group will review the situation to determine the need to recommend establishing a database for rivers in the NAC area.

The Scientific Working Group developed several specific recommendations relative to updating protocols as they exist in the current Protocol documents NAC(92)24 and NAC(94)14. These are presented below for the Commissions consideration, with the pertinent portions of the current Protocols identified in brackets. (Comments on NAC(92) also apply to any related text in NAC(94).

1. [NAC(92), Part I, Sect. 1 & 2]. Identify the specific Class of each river basin in the NAC based on current Zone location and available agency input on specific rivers. The completion of this process may make the current use of "Zones" unnecessary.

2. [NAC(92), Part I, Sect. 3]. The Scientific Working Group proposes to add flexibility to the 30km and 20km distances referenced in protocols for Zone 1 and 2. Otherwise, only minor wording changes are anticipated for this Section. No change is proposed to the "ban on importation and use of European origin salmon in the Commission Area".

3. [NAC(92), Part I, Sect. 4]. Eliminate Section 4 of Part I as no longer necessary. Relocate discussion of risk assessment (probably to proposed new Part II Overview and Application).

4. [NAC(92), Part I, Sect. 5]. The glossary terms and all other definitions will be reviewed and made consistent with definitions used by ICES and NASCO where possible. All terms defined in the protocol documents will be located in a single section the proposed new Part I.

5. [NAC(92), Part II]. The Current Part II (Fish Health Protocols) will be rewritten to recognize the policies, guidelines, and regulations that have been developed since the inception of the NAC Protocols and reduce redundancy between them and the Protocols. The extensive detail found in the current NAC Protocols was necessary at the time they were developed to provide a model. The Scientific Working Group feels that local regulatory measures have evolved to a point that the function of the NAC Protocols should be to establish minimum fish health standards rather than a

detailed model. The proposed update of the fish health protocols, as outlined in Attachment 3, will provide a baseline for fish health protocols necessary to protect salmon stocks from serious disease threats posed by salmonid introductions and transfers.

6. [NAC (94)14 Part III, Sect. 2.2.2 (c)]. The references to specific juvenile life stages be replaced with "earliest life stages practical" and the recommendation not to stock parr should be deleted. The Scientific Working Group feels that this more general statement adequately conveys the concept of the desirability to maximize the exposure of planted juveniles to natural selection processes.

7. [NAC(92), Part III, Sect. 3]. The Scientific Working Group recommends that specific research needs be eliminated in the Revised NAC Protocols. This topic can be more timely dealt with in the Scientific Working Group's annual report to NAC rather than in the actual Protocols Document.

8. [NAC(92), Part IV, Sect. 4.1]. The Revised NAC Protocols should specify a target of 95% effectiveness where a protocol requires reproductive sterile stocks.

9. [NAC(92), Part IV]. Risk analysis and parts of other discussions of ecological impacts included in the current Part IV are useful and will be incorporated into the new Parts I and II or Appendix of the Revised NAC Protocols. The Scientific Working Group felt that a separate section on "ecological effects" *per se* is not necessary and will be eliminated in the Revised NAC Protocols document.

3. Review of the latest genetics and fish health information as to their applicability to the Protocols.

The Scientific Working Group's review of fish health issues are reflected in the recommendations above and Attachment #3.

The Scientific Working Group reviewed the 22 May 1996 report of the Genetics Subgroup and discussed the information presented at the April 1997 ICES/NASCO Symposium held at Bath, UK. There is some indication that molecular genetic technology has advanced to a point where it should be possible to classify river stocks and domestic strains on a common scale of genetic similarity. This information could form the basis for establishing criteria for limits on the allowable genetic distance between a domestic strain and wild stock. The Scientific Working Group will further investigate the feasibility of this approach, since it could provide a more objective means to determine the allowable strains for aquaculture in a particular area. It is recognized that a high level of genetic diversity is important to the long-term viability of a wild stock, but a desirable aquaculture stock may possess a reduced level of genetic variability due to selective breeding.

Genetics investigative techniques using micro-satellite probes are showing a higher degree of genetic variability within river populations in the NAC area than had previously been reported. The micro-satellite loci have more alleles than were measured from the mtDNA markers. The level of genetic variability measured by 11-12 micro-satellite loci currently being used in analysis of salmon stocks may be too great to be practical for characterizing specific river stocks or measuring genetic distance between stocks in the traditional method

of calculating genetic distance. The Scientific Working Group concludes that a scale of genetic similarity/differences should take into consideration the following three elements: number of similar alleles, number of different alleles, and amount of heterozygosity. The Scientific Working Group will continue to work with the Genetics Subgroup to develop protocols for establishing a scale of genetic similarity.

The Scientific Working Group continues to support the prohibition on the use of European stocks in the NAC area. Micro-satellite and mtDNA markers are available that can reliably distinguish European and North American stocks. There are major demonstrable genetic differences between North American and European salmon stocks that indicate introgression between the two could result in lower fitness. The continued use of Landcatch stock (an aquaculture stock of Norwegian/Scottish origin) in the NAC area (state of Maine) is contrary to NAC Protocols and of concern to the Scientific Working Group.

There was material presented at the Bath Symposium reported information that was consistent with the basic premise of the genetic protocols that escapement of aquaculture salmon can result in genetic introgression with wild populations and a resultant lowering of suitability of the resulting generation. One study indicated there may be ecological impacts as the juvenile hybrids grew faster that wild juveniles and may displace wild juveniles. Continued studies will seek to determine the long results of such introgression. The Scientific Working Group did not find new information that would significantly impact current genetic protocols in our initial review of the material presented at Bath.

Summary of Recommendations Extracted From Above

1. The Commission approve the format reflected by Attachment #2.

2. A pocket-sized summary of the revised consolidated protocols be published.

3. The following be included be in the re-write of the NAC Protocols:

    a) Reproductively viable transgenic salmon may only be introduced into land-based facilities where the possibility of escapement is minimal.
    b) Transgenic salmonids used in marine or freshwater cage rearing operations are to be reproductively sterile. Testing should indicate a minimum of 95% reproductive sterility.
    c) Proposals for cage rearing of transgenic salmonids should be forwarded to the NAC for review and comments prior to fish being put into freshwater or marine cages.

4. The Commission approve nine specific protocol changes (see above).

Attachment #1

SUMMARY OF SALMONID INTRODUCTIONS AND TRANSFERS IN EASTERN NORTH AMERICA

1986 – 1996

Prepared by the

NORTH AMERICAN COMMISSION (NASCO) SCIENTIFIC WORKING GROUP ON INTRODUCTIONS AND TRANSFERS OF SALMONIDS

MAY 1997

Attachment # 2

Proposed Outline of 1998 Revised Protocols For the
Introduction and Transfer of Salmonids In the
North American Commission Area

I. Introduction and Definitions

   A. Origin and purpose of Protocols

   B. Definition of terms used in Protocol Document

II. Overview and Application of Protocols

III. Protocols for Salmonid Introductions and Transfers

   A. Protocols related to fish health issues

   B. Protocols related to genetics issues

IV. References

V. Appendices

Attachment #3

PROPOSED CHANGES TO PART II

PROTOCOL ON SALMONID FISH HEALTH

The Scientific Working Group recognizes that, in the North American Commission (NAC) area, there are many regulations and policies designed to protect the health of wild and cultured Atlantic salmon resources. These include the Canadian Fish Health Protection Regulations, US Government Title 50 CFR 16.13, New England Salmonid Health Guidelines, New Brunswick Aquaculture Act, etc.

These legislative mechanisms have been effective in preventing the introduction and spread of salmonid pathogens of concern.

Consequently, there is little justification at this time to maintain and update the detailed salmonid health protection procedures described in Part II of the NAC Protocols. Instead, the Scientific Working Group recommends that Part II of the Protocols be amended to:

(a) Establish minimum standards for health protection regulations and policies that apply to the NAC area; and

(b) Provide a mechanism for NAC to assess proposed amendments to regulations and policies affecting the NAC area for consistency with standards described in the Protocols.

Specifically, the Scientific Working Group recommends the following changes be considered for Part II of the NAC Protocols:

1. Introduction

- Describe the concept that Part II provides minimum fish health protection standards for the NAC area, and that these standards are consistent with international standards (e.g. OIE International Aquatic Animal Health Code).

- Establish a mechanism for the NAC to assess proposed amendments to health protection regulations and policies affecting the NAC area for consistency with NAC standards.

2. Definitions

- To be amended according to changes in the remaining text.

3. Basic Obligations

- No change.

4. Application

- Change “The provisions of this program apply to:” to “These standards apply to:”

- Remaining text remains the same.

5. Traffic in Fish

- To edited to reflect standards that are acceptable to Canadian and US interests.

- One significant change will be that traffic in eggs or fish will be permitted from IHN, VHS and OMV enzootic areas, provided source facilities have an acceptable history of testing to demonstrate the absence of these pathogens.

6. Fish Health Inspection Reports }
7. Fish Health Inspectors } **DELETE**
8. Acknowledgements }
Annex I and II }

Annex III – List of Disease Agents

- Emergency disease agents: Add Oncorhynchus Masou Virus (OMV) to list. Remove “PKD – Proliferative Kidney Disease Agent” from list. Note that Ceratomyxosis (*Ceratomyxa shasta*) and Whirling Disease (*Myxobolus cerebralis*) are only of concern in sources of live fish, not in sources of eggs or unfertilized gametes.

- Restricted/Other Diseases: Consider consolidating into one list of pathogens indigenous to the NAC area.

Annex IV through Annex IX

- Delete all

ANNEX 6

COUNCIL

CNL(97)50

REQUEST FOR SCIENTIFIC ADVICE FROM ICES

1. With respect to Atlantic salmon in the North Atlantic area:

   1.1 provide an overview of salmon catches, including unreported catches and catch and release, and worldwide production of farmed and ranched salmon in 1997;
   1.2 report on significant developments which might assist NASCO with the management of salmon stocks;
   1.3 provide any new information on the causes of changes in abundance of salmon;
   1.4 comment and advise on the Report of the NASCO Working Group on the Precautionary Approach, as it relates to the work of ICES;
   1.5 provide a compilation of microtag, finclip and external tag releases by ICES member countries in 1997.

2. With respect to Atlantic salmon in the North-East Atlantic Commission area:

   2.1 describe the events of the 1997 fisheries and the status of the stocks;
   2.2 update the evaluation of the effects on stocks and homewater fisheries of the suspension of commercial fishing activity at Faroes since 1991;
   2.3 provide age specific stock conservation limits for all stocks occurring in the Commission area based on best available information;
   2.4 estimate the expected abundance of salmon in the North-East Atlantic for 1998/1999;
   2.5 provide catch options with an assessment of risks relative to the objective of exceeding stock conservation limits;
   2.6 evaluate any new information on the potential by-catch of post-smolts in pelagic fisheries;
   2.7 identify relevant data deficiencies and research requirements.

3. With respect to Atlantic salmon in the North American Commission area:

   3.1 describe the events of the 1997 fisheries and the status of the stocks;
   3.2 update the evaluation of the effects on US and Canadian stocks and fisheries of management measures implemented after 1991 in the Canadian commercial salmon fisheries;
   3.3 update age-specific stock conservation limits based on new information as available;
   3.4 provide catch options with an assessment of risks relative to the objective of exceeding stock conservation limits;
   3.5 identify relevant data deficiencies and research requirements.

4. With respect to Atlantic salmon in the West Greenland Commission area;

4.1 describe the events of the 1997 fisheries and the status of the stocks;
4.2 evaluate the impact of the Reserve Quota at West Greenland on salmon stocks in relation to the goal of exceeding stock conservation limits {spawning targets};
4.3 provide a detailed explanation of any changes to the model used to provide catch advice and of the impacts of any changes to the model on the calculated quota;
4.4 provide age specific stock conservation limits {spawning targets} for all stocks occurring in the Commission area based on best available information;
4.5 examine critically the model used to provide catch advice, looking at all the assumptions, and comment on the confidence limits on the output from the model;
4.6 provide catch options with an assessment of risks relative to the objective of exceeding stock conservation limits {spawning targets};
4.7 identify relevant data deficiencies and research requirements.

ANNEX 7

LIST OF NORTH AMERICAN COMMISSION PAPERS

Paper No.	Title
NAC(97)1	Provisional Agenda
NAC(97)2	Draft Agenda
NAC(97)3	Long-Term Strategy and Management Plan for Rebuilding Labrador's Salmon Stocks (tabled by Canada)
NAC(97)4	The St Pierre et Miquelon Fisheries
NAC(97)5	Draft Report
NAC(97)6	Report of Activities 1996/97 - NAC Scientific Working Group on Salmonid Introductions and Transfers
NAC(97)7	Canadian Conservation Actions for Atlantic Salmon
NAC(97)8	Agenda
NAC(97)9	Report of the Fourteenth Annual Meeting of the North American Commission
CNL(97)50	Request for Scientific Advice from ICES

NOTE: This is a listing of all the Commission papers. Some, but not all, of these papers are included in this report as annexes.