NORTH ATLANTIC SALMON CONSERVATION ORGANIZATION

ORGANISATION POUR LA CONSERVATION DU SAUMON DE L'ATLANTIQUE NORD



Agenda Item 3.3 For decision

# COUNCIL

# **CNL(97)11**

Report On The Activities Of The North Atlantic Salmon Conservation Organization In 1995/1996 (for publication)

Note: The Organization's policy is to publish a report on its activities every 2 years. However, the present procedures means that the report is considerably out of date by the time that it is published. One improvement might be for the Secretariat to produce a final version of the report within, say, 6 weeks of the Annual Meeting and allow 4 weeks for comment. This would enable us to publish our report within 3 or 4 months of the end of the period it covered rather than the 9-12 months at present.

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# CNL(97)11

# Report On The Activities Of TheNorth Atlantic Salmon Conservation Organization In 1995/1996

#### Introduction

- 1. Despite the sacrifices that have been made both nationally and internationally in recent years there continues to be concern about the abundance of salmon stocks. Part of the decline in catches has been due to conservation measures which deliberately restrict catches but the decline has been greater than would have been anticipated as a result of these management measures alone. During this period of low abundance it is vital that human actions are not allowed to exacerbate what appears to be a poor environmental situation that may be linked to natural causes. The Organization must quickly respond to existing threats and to new threats as they emerge.
- 2. Adverse impacts on salmon stocks are not new but new risks to the stocks emerge on a regular basis, some with great rapidity. For example, a new development which faced the Organization in 1995 was the availability to the salmon farming industry of transgenic salmon with greatly enhanced growth rates (4-6 times compared to salmon which have not been genetically modified). The Council has reviewed the threats which these salmon might pose to the wild stocks and is developing an internationally acceptable Resolution designed to control the risks and develop more information. The Council has also continued to review annually the measures taken by the Parties to safeguard the wild stocks from impacts of salmon farming, an industry which now produces in excess of 120 times the harvest of wild stocks. The Organization, in conjunction with ICES, is holding a major international symposium in 1997 to consider the scientific and management implications of aquaculture for the wild stocks. The Organization intends to develop its cooperation with the industry to try to ensure that aquaculture development proceeds without damage to the wild stocks.
- 3. Another example of particular concern, which has emerged in recent years, is the damage to the wild stocks caused by introductions and transfers. The risks have been highlighted by the parasite *Gyrodactylus salaris* in the North-East Atlantic area, which has caused very high levels of mortality of juvenile salmon in some rivers in Norway to the extent that the stocks in these rivers are threatened with extinction. Measures have been developed in both the North-East Atlantic and the North American Commissions with the aim of safeguarding the wild stocks from the genetic, disease and parasite and ecological impacts of poorly planned fish movements.
- 4. There is concern about the impacts of growing populations of the predators of salmon, such as fish-eating birds and seals, and also about the effect of harvesting some of the prey species of Atlantic salmon such as sandeels in industrial fisheries. These issues were given a thorough airing in a Special Session held in 1996. This is a difficult area with many overtones but the Council will return to the management implications arising from this session at its Fourteenth Annual Meeting.
- 5. During the period covered by this report NASCO has continued to broaden its competence to address new issues as they arise. It is clear from the database on

salmon rivers which NASCO has established that about 13% (approximately 240 rivers) of the 1900 salmon rivers in the North Atlantic area are considered to be threatened with loss and 6.5% (120 rivers) have been lost to salmon production. The challenge facing NASCO is to rebuild the stocks which are threatened and to restore those which have been lost. The measures taken by the Organization, detailed in this report highlight the commitment of the Parties to the conservation, restoration enhancement and rational management of this valuable and highly prized resource.

# **Officers**

# Council

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President Mr Børre Pettersen (Norway) Mr Einar Lemche (Denmark (in respect of the		to June 1996
	Faroe Islands and Greenland)	from June 1996
Vice-President	Mr David Meerburg (Canada) Mr Ole Tougaard (European Union)	to June 1996 from June 1996

# North American Commission

Chairman	Mr Jean- Paul Duguay (Canada)	to June 1996
	Dr Ray B Owen (USA)	from June 1996
Vice Chairman	Dr Ray B Owen, Jr (USA)	to June 1996
	Mr Pierre Tremblay (Canada)	from June 1996
Rapporteur	Ms Kimberly Blankenbeker (USA)	

# West Greenland Commission

Chairman	Mr Ernesto Penas (European Union)	to June 1996
	Mr Robert Jones (USA)	from June 1996
Vice-Chairman	Mr Robert Jones (USA)	to June 1996
	Mr Andrew Thomson (European Union	from June 1996
Rapporteur	Mr David Dunkley (European Union)	

# North-East Atlantic Commission

Chairman	Mr Pekka Niskanen (European Union)	
Vice-Chairman	Mr Ernesto Penas (European Union)	to June 1996
	Dr Alexander Zelentsov (Russia)	from June 1996
Rapporteur	Mr Per Ivar Bergan (Norway)	

### **Finance and Administration Committee**

Chairman	Mr Eero Niemela (European Union)
Vice-Chairman	Mr Stetson Tinkham (USA)

### Secretariat

Secretary	Dr Malcolm Windsor
Assistant Secretary	Dr Peter Hutchinson

### The Organization

The North Atlantic Salmon Conservation Organization (NASCO) was established in 1984 under the Convention for the Conservation of Salmon in the North Atlantic Ocean. The objective of the Organization is to contribute through consultation and cooperation to the conservation, restoration, enhancement and rational management of salmon stocks taking into account the best scientific evidence available to it.

NASCO consists of a Council, three regional Commissions and a Secretariat. The Council is made up of representatives of all the Parties to the Convention, ie Canada, Denmark (in respect of the Faroe Islands and Greenland), the European Union, Iceland, Norway, the Russian Federation and the United States of America. Finland and Sweden became members of the European Union on 1 January 1995 and with effect from 31 December 1995 their membership of NASCO was through the European Union. The main functions of the Council are to provide a forum for the study, analysis and exchange of information and for consultation and cooperation on salmon stocks; to coordinate the activities of the Commissions and to make recommendations on scientific research. Its decisions are taken in the main by three-quarters majority. The functions of the regional Commissions - the North American Commission, the North-East Atlantic Commission and the West Greenland Commission - are to provide fora for consultation and cooperation among the members on salmon questions, to propose regulatory measures for fishing in the fishery zones of members for salmon originating in the rivers of other Parties and to make recommendations to the Council on scientific research. The Commissions have restricted membership and decisions require unanimous agreement. The following organizations have observer status to NASCO:

American Fisheries Society Association of Icelandic Angling Clubs Association Internationale de Defense du Saumon Atlantique Association of Scottish District Salmon Fishery Boards Atlantic Salmon Federation, Canada Atlantic Salmon Federation, USA Atlantic Salmon Trust European Anglers Alliance Federation of Irish Salmon and Sea-Trout Anglers Fédération Québécoise pour le Saumon Atlantique Finnish Sport Fishermens Association Icelandic Federation of River Owners Institute of Fisheries Management International Friends of Wild Salmon National Anglers Representative Association Norges Bondelag (Norwegian Farmers Union) Norges Jeger og Fiskerforbund (Norwegian Association of Hunters and Anglers) Norske Lakseelver (Norwegian Salmon Rivers) Salmon Net Fishing Association of Scotland Salmon and Trout Association Sami Parlamenta Scottish Anglers National Association Ulster Angling Federation Limited

Insert Map of Convention Area

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# The Work Of The Council

#### The Future Issues for NASCO

To mark the Organizations Tenth Anniversary, the Council decided that it would be appropriate and valuable to have a forward look at the future issues which might be faced in achieving the objectives of the Convention. These issues were reviewed and the Council considered a priority list and the need for action on each item. While the Council is already addressing a wide range of issues, new threats to the wellbeing of wild salmon stocks arise with surprising speed. For example, when the Organization was established in 1984 few would have anticipated that five years later vessels registered in South America would be fishing for salmon in the North Atlantic. When the Council first began to consider the future issues it was reported that the whole issue of transgenic salmon was an issue that would present itself some time into the future. Six months later transgenic fish were being reared experimentally in aquaculture. Even in the short term the Organization has had to re-focus on quite new issues. At the same time it has identified a number of longer term questions. The new issues, additional to the present work described in this report, which have been identified as requiring further consideration, include:

- increased cooperation between the Parties on freshwater issues such as pollution and habitat damage which cause great losses of salmon
- how to adopt the Precautionary Approach to NASCO's work in order to safeguard wild salmon stocks
- the Organization's working methods including its relations with non-government and inter-government organizations
- global warming and its possible impact on salmon distribution
- the role NASCO could play in educating the young on salmon conservation and management issues

The Council agreed that all of the issues identified should serve as a basis for the future work of the Organization and that these should be regularly reviewed to ensure that the Organization keeps pace with changes.

#### Fishing for Salmon in International Waters

Under the Convention for the Conservation of Salmon in the North Atlantic Ocean, fishing for salmon beyond areas of fisheries jurisdiction is prohibited. During the winter of 1989/90, however, reports were received that some salmon long-lining vessels which had registered in non-NASCO States were fishing for salmon in the area of international waters to the north of the Faroe Islands. Diplomatic activity taken by the Organization in response to this activity appeared to have had effect and there was a marked reduction in the number of sightings. In 1992, in response to a small number of continuing sightings a Protocol open for signature by non-Contracting Parties was adopted. The diplomatic efforts of the Parties and the Organization have resulted in actions by the States concerned to address the problem and there have been no sightings of vessels fishing for salmon in international waters in 1995 or

1996. However, the fishery mainly takes place at times of the year when there is 24 hours of darkness and there are very few surveillance flights over the area of international waters at this time. Those that do take place cover only a small part of the area of international waters. It is possible therefore that the problem could go undetected. During 1993 a meeting of coastguard/fishery protection agencies and NASCO was held and recommendations on areas for international collaboration aimed at improving the surveillance information were identified. In accordance with these recommendations a three-phase salmon surveillance project was conducted in 1995/96 and the results of this project, together with other options for improved surveillance by, for example, use of radar satellite information, will allow further steps to be taken to prevent this activity which could undermine the conservation efforts of NASCO.

#### **Research Fishing for Salmon**

Under Article 2 of the Convention, fishing for salmon is prohibited beyond 12 nautical miles from the baselines except at West Greenland (where it is permitted to fish for salmon up to 40 nautical miles from the baseline) and in the North-East Atlantic Commission area where fishing within the area of fisheries jurisdiction of the Faroe Islands is permitted. However, there is, and has in the past been, interest by the Parties in research fishing for salmon both in international waters and within areas of fisheries jurisdiction. However, the Council recognised that any change to the provisions of Article 2 so as to permit research fishing would need careful consideration in the light of non-Contracting Parties fishing for salmon in international waters. It was agreed that research fishing would therefore need to be under carefully controlled conditions and the Council unanimously adopted a draft Resolution detailing the conditions under which Scientific Research Fishing may be conducted. Prior to the adoption of this Resolution the Council had approved proposals to conduct scientific research fishing by Canada, Norway and the EU (Scotland). These programmes should provide valuable information on the marine phase of salmon of value to the management of the resource.

#### Impacts of Aquaculture on the Wild Stocks

In 1994, the Council adopted a Resolution introducing measures designed to minimise genetic and other biological interactions and the risk of transmission of diseases and parasites to the wild stocks. This Resolution encourages the development of practices, including research and development, to minimise all adverse impacts and sets up monitoring of the actions taken by the Parties through an annual review process. The situation with regard to implementation of the recommendations will be assessed in 1998 with a view to considering whether additional measures may be needed.

In order to assist the Council in developing appropriate management measures it was agreed that a symposium entitled "The interactions between salmon culture and wild stocks of Atlantic salmon: the scientific and management issues" be organised in conjunction with ICES. The symposium, held in Bath, England during 18-22 April 1997, had the following objectives:

- to review the results of research on the interactions between salmon culture and wild stocks of Atlantic salmon

- to examine the practical implications of such interactions for stock management
- to identify gaps in current knowledge and to establish future research priorities.

In order to retain and strengthen the good relationship which has been established with the salmon farming industry, the Council also agreed to establish a Liaison Group to "provide the international forum for liaison between the salmon farming industry and managers of the wild Atlantic salmon stocks on issues of mutual interest, and to make recommendations for action". The Secretary is liaising with the industry with a view to establishing this joint Group.

#### **Transgenic Salmon**

During 1995 a company based in North America began licensing its transgenic technology to the salmon farming industry with a claim that the transgenic fish would grow 4-6 times faster than "standard" fish. One fish farm in Scotland began to rear these fish experimentally in 1995. Transgenic salmon are salmon into which genes have been introduced from another organism, which may or may not be of the same species. While transgenic organisms may offer potential environmental benefits their use also raises important questions related to ecological consequences, product safety and consumer acceptance. The need to ensure the containment of transgenic salmon so as to avoid interactions with the wild stocks has been stressed by scientists, including those involved in the production of transgenic salmon. The North-East Atlantic Commission of NASCO agreed that transgenic salmon could pose a major threat since there would inevitably be an interaction of some kind with the wild stocks and with the environment since the use of transgenic salmonids in farming based on existing technologies would invariably result in escape to the wild. Wider agreement concerning the whole North Atlantic area on this issue was urged. The Council reviewed the risks to the wild stocks from transgenic salmon and considered a Resolution designed to control the risks and develop more information. The Council was unable to agree the details of the Resolution on transgenic salmon but this issue will be re-examined at the 1997 meeting. The Council also agreed that the issue should be referred to the new Liaison Group, established with the salmon farming industry, and that it would hold a Special Session on this subject to examine the risks and possible benefits in more detail.

#### The Atlantic Salmon as Predator and Prey

In recent years concern has been expressed about the impacts of rapidly expanding populations of predators of Atlantic salmon, particularly seals and fish-eating birds. For example, Canadian populations of the grey seal, *Halichoerus grypus*, have been increasing at 13% and 8% per year off Nova Scotia and in the Gulf of St Lawrence respectively. However, it is often difficult to determine the effect of predators. Concern has also been expressed that the harvest of some of the prey species of salmon, such as sandeels (*Ammodytes spp*), in industrial fisheries may result in food shortages for salmon during its oceanic phase. At the request of a number of NASCO's observers from non-government organizations these issues were considered by the Council in a Special Session devoted to the Atlantic Salmon as Predator and Prey. Presentations were made on "The predators of Atlantic salmon and their impact on salmon stocks", "The public perception of predator control programmes", "The prey of the Atlantic salmon" and "The impact of industrial fisheries on the prey of the

salmon". It was agreed that the management and other implications arising from the meeting should be considered by the Council at its next meeting.

### Catch and Release

In recent years there has been growing interest in catch and release, both voluntary and mandatory, in response to declining stock levels, or components of the stocks, in a number of North Atlantic countries. The Council had previously reviewed the scientific information concerning the effectiveness of catch and release and it had been recognised that to be of benefit as a management measure it is important that stress and physical damage to fish intended for release is avoided and that where catch and release is practised, guidelines could therefore be of benefit. Guidelines were discussed and subsequently agreed by the Parties and these will be presented for formal adoption by the Council at its Fourteenth Annual Meeting.

#### Salmon Tagging

All of the Parties to NASCO tag salmon in order to obtain valuable information on the migrations and exploitation of the stocks. The Council reviewed information on tagging programmes conducted by the Parties. In order to encourage the return of external tags the Council had established a Tag Return Incentive Scheme. This Scheme has resulted in improvements in tag reporting rates by fishermen and has given valuable publicity to the work of the Organization.

#### Salmon Rivers Database

The Council has established a database of salmon rivers flowing into the Convention area which contains details of approximately 1900 rivers, including an indication of the status of the stocks. Of these, approximately 76% are categorised as being 'not threatened with loss'. However, a total of approximately 7.5% of rivers fall into the category 'lost and maintained' and 12.6% are considered to be 'threatened with loss'.

### **Observer status to NASCO**

The Council decided that, as attendance by Non-Government Organizations (NGOs) at its meetings had been of mutual benefit, it would continue, until further notice, with the present arrangement of allowing their attendance at both Council and Commission meetings with statements being permitted during Special Sessions of the Council and also at the Opening Session. NGOs may also circulate information to delegates about their work or their views. Inter-governmental organizations are also granted observer status at NASCO meetings. The Council decided that representatives of the media could also attend its meetings and agreed criteria governing the attendance.

### Minimum Standard for Catch Statistics

The Council has been concerned about the lack of comparability in the catch statistics of the Parties in order to address this problem on Minimum Standard for Catch Statistics had been adopted which was phased in so that all Parties had achieved the standard by the 1995 fishing seasons. This minimum standard requires that the statistics include catches from all

components of the salmon fisheries and returns to ranching units, are differentiated into sea age class or into grilse and multi-sea winter components and differentiate whenever possible between wild fish and fish which have escaped from fish farms.

### **Election of Officers**

The Council decided to permit eligibility for election as an office bearer to any member of a delegation who has the approval of the representatives of that delegation. In this way contributions to the work of the Organization could be made from as wide a source of experience as practicable. In 1996 the Council elected Mr Einar Lemche (Denmark in respect of the Faroe Islands and Greenland) to be its President and Mr Ole Tougaard (European Union) to be its Vice-President.

# **Other Issues**

Progress reports were considered by the Council on analysis of catch statistics, the laws, regulations and programmes database; and development of guidelines on stocking. The Council received information from the Parties on the measures they had taken in accordance with Articles 14 and 15 of the Convention. The Council agreed that it would interpret Article 13 of the Convention in such a way that if there is an objection to an emergency regulatory measure this objection cannot subsequently be withdrawn with the effect that the measure is revitalised. The Council also considered the official catch statistic returns by the Parties and asked the Secretary to consult with the Parties to seek clarification of the reasons for the differences in the statistics provided by ICES and the official statistics provided to NASCO.

# The Work of the West Greenland Commission

# Establishment of Regulatory Measures

In 1993 the Commission had adopted a regulatory measure which established a mechanism for setting catch quotas for the years 1993-1997. This measure recognised that a quota should be determined annually based on the best scientific advice; that a quota should adjust up or down relative to the best scientific advice and that a quota agreement should commit the Parties for a significant period and not be subject to changes in its fundamental parameters unless agreed by the Parties. Under this regulatory measure quotas are based on the following scientific advice, without prejudice to new advice from ICES:

- The ICES advice on the pre-fishery abundance of potential 2SW salmon of North American origin (and European origin if available)
- The ICES advice on the target spawning escapement reserve of potential 2SW salmon necessary to achieve target spawning escapement, or a different proportion of this reserve as agreed to by the Parties
- Any surplus above this target spawning escapement reserves or the proportion agreed to, may be available for harvest by the Parties

- Allocation of the surplus shall be based on the average for the period 1986-1990 of the harvest share of potential 2SW salmon of North American origin caught at West Greenland (40%) or a different share if agreed upon by the Parties
- Any other parameters used by the Parties shall be as advised by ICES.

In 1993 and 1994 catch quotas of 213 tonnes and 159 tonnes respectively were established for the West Greenland fishery under this regulatory measure. In1995 a catch quota of 77 tonnes was agreed for the West Greenland. In 1996 the Parties were unable to agree on a catch quota for the West Greenland fishery but agreed to work towards the development of a new agreement.

# Election of Officers

In 1995 the Commission elected Mr Ernest Penas (EU) as Chairman and Mr Robert Jones (USA) as Vice-Chairman. In 1996, Mr Robert Jones (USA) was elected as Chairman and Mr Andrew Thomson (EU) was elected as Vice-Chairman.

# The Work of the North-East Atlantic Commission

# **Regulatory Measures**

In 1995 the Commission adopted a proposal for a regulatory measure for the Faroese fishery for the 1996 calendar year. Under this measure the total nominal catch was set at 470 tonnes and the following measures also applied:

- areas with salmon below 60cm in length will be closed to salmon fishing at short notice
- the number of boats licensed for salmon was limited to 13
- the salmon fishery season was limited to 150 days between 1 January and 30 April and 1 November and 31 December.
- the total number of boat days was set to 1200

The representative of Denmark (in respect of the Faroe Islands and Greenland) advised the Commission that if fishing licences were granted for fishing in 1996 the Home Government of the Faroe Islands would intend to allocate no more than 390 tonnes of the quota.

In 1996 the Commission adopted a proposal for a regulatory measure for the Faroese fishery for the 1997 calendar year. Under this measure the total nominal catch was set at 425 tonnes and the following measures also applied:

- areas with salmon below 60cm in length will be closed to salmon fishing at short notice
- the number of boats licensed for salmon was limited to 12
- the salmon fishing season was limited to 150 days between 1 January and 30 April and 1 November and 31 December
- the total number of boat days was set to 1200

The representative of Denmark (in respect of the Faroe Islands and Greenland) informed the Commission that if fishery licences were to be granted in 1997 the Home Government of the Faroe Islands would intend to allocate no more than 360 tonnes of the quota and would further seek to reduce the fishery effort by 7 days in April 1997 and by 7 days in December 1997 and to restrict the total to 1150 fishery days in 1997.

# Scientific Research Fishing

The Commission received a report on a research fishing project conducted to the North-West of the Hebrides and in the Northern Norwegian Sea during 1995 by Norwegian scientists. Catches of up to 23 post-smolts had been made during 30 minute surface trawls. This represented a break-through in sampling post-smolts at sea. The results indicated high growth rates. Age analysis of the post-smolts in the northern areas suggested that a relatively high proportion of the fish in this area had originated from southern European rivers. Small numbers of adult salmon, many of which were fish farm escapees, were also caught.

# Environmental Quality of Salmon Rivers

The Commission had previously been advised of an alarming decline in the abundance of salmon populations in Swedish West Coast Rivers. Investigation had been undertaken and the parasite *Gyrodactylus salaris* had been found. This parasite, which originates in the Baltic has caused severe damage in Norwegian rivers and threatens Atlantic salmon populations in other North-East Atlantic countries. The Norwegian authorities, who have considerable experience in the treatment of rivers infected with the parasite, had offered to cooperate with the Swedish authorities to control the parasite and prevent its spread and the Commission was advised that following meetings of scientists and administrators from Norway and Sweden considerable progress had been made.

# Introductions and Transfers

In 1995 the Commission received a report from its Working Group on Introductions and Transfers which concluded that if the Commission wished to have confidence that wild salmon stocks are protected there would have to be recommendations on measures stronger than those at present in force. A number of recommendations had been formulated for consideration by the Commission. The Commission welcomed the report by the Working Group but recognised that further work was needed on classification of rivers, on the concept of zones designed to reduce the spread of unknown diseases and parasites and on transgenic salmon. The Commission adopted a document prepared by the European Union based on the report of the Working Group which included the following recommendations:

- movements of live Atlantic salmon and their eggs originating from outside the Commission area should not be permitted;
- mapping for the presence of serious diseases and parasites should be used to establish epidemiological zones for at least the following diseases and parasites: Viral Haemorrhagic Septicaemia (VHS), Infectious Haematopoietic Necrosis (IHN), Infectious Salmon Anaemia (ISA) and the parasite *Gyrodactylus salaris*;

- no non-indigenous fish should be introduced to a river containing Atlantic salmon without a thorough evaluation of the potential adverse impacts of salmon which indicates that there are no risks of adverse ecological interactions.
- movements of live salmonids and their eggs from hatcheries to areas containing Atlantic salmon stocks or to facilities where there is a risk of transmission of infection to such areas, should only take place from facilities where regular inspections have not detected the presence of significant diseases and parasites.

In 1996 the Commission received a report on the issues which remained unresolved from the previous year. With regard to transgenic salmon the Commission stressed that releases of transgenic salmon posed severe risks to the wild stocks and in any risk assessment the threats to the wild stocks should be recognised and there should be a strong presumption against any activity which would risk the introduction of transgenic salmonids to the wild. The Commission also agreed on a system of classifying rivers based on the NASCO Rivers Database and a number of factors were identified which needed to be taken into consideration in developing management measures for each Group of rivers. The Commission also agreed that there was a need to strengthen and amend disease controls to take full account of the special situation of the wild fish and that where there are stock movements the use of salmonid eggs is safer and therefore desirable. The strengthening of procedures for the early identification and detection of, and rapid response to, an outbreak of any serious disease or parasitic infection likely to affect salmon was recommended. It was recognised that the establishment of zones to prevent the spread of unknown diseases and parasites would be a positive factor in protecting against the spread of diseases and parasites to the wild stocks.

Recognising the possible conflicts with international trade agreements, the Commission agreed that representatives of the World Trade Organization and other relevant organizations dealing with international agreements such as the Biodiversity Convention should be invited to attend its next annual meeting.

#### Election of Officers

In 1996 Mr Pekka Niskanen (EU) was re-elected as Chairman and Dr Alexander Zelentsov (Russia) was elected as Vice-Chairman.

# The work of the North-American Commission

#### St Pierre and Miquelon Fisheries

The Commission reviewed the catch statistics for the salmon fisheries at St Pierre et Miquelon. The catch in 1994 of 3.4 tonnes was the highest in the period of record dating back to 1987. The representative of the USA raised the question of membership of France (in respect of St Pierre et Miquelon) in other international fisheries fora and suggested the possibility of encouraging such membership of NASCO. The representative of Canada referred to a new agreement between France and Canada concerning St Pierre et Miquelon under which reference is made to the responsibility of both France and Canada to comply with salmon conservation measures adopted by NASCO. 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. The representative of Canada suggested that the agreement should make it unnecessary for membership by France in NASCO.

#### **Regulatory Measures**

The Commission reviewed the Canadian and US Salmon management measures. In 1996 the representative of the USA tabled a proposal for a regulatory measure for the mixed stock fishery in the North American Commission area which proposed the closure of the marine commercial fishery for salmon in Labrador Areas 1 and 2 in 1996 and 1997. The Commission was unable to agree to this proposal.

#### Introductions and Transfers

The Commission received reports from its Scientific Working Group on Salmonid Introductions and Transfers. Reported introductions and transfers were evaluated against the NAC Protocols which had been developed to minimise the risk of introduction and spread of infectious diseases and agents; to prevent the reduction in genetic diversity and prevent the introduction of non-adaptive genes to wild salmon populations; and to minimise the other impacts of introductions and transfers. The Commission had previously agreed amendments to these Protocols and that the members of the Commission would take steps to implement the provisions of the revised Protocols in their respective domestic laws, regulations or policies. In 1995 the Commission was advised that the US Fish and Wildlife Service and the National Marine Fisheries Service were proposing to list as threatened under the Endangered Species Act populations of salmon in seven Maine rivers. Formal enactments of the Protocols by the United States had been delayed as they were being discussed in the context of the The use of the Protocols was, however, being encouraged by the proposed listing. appropriate agencies. In 1996 the Commission asked the Scientific Working Group to develop a timetable for consolidation of all the Protocols into one and a request to reduce any ambiguity. The revised Protocol will be tabled for adoption at the 1998 meeting.