REPORT OF THE
TWENTY-THIRD
ANNUAL MEETING
OF THE COUNCIL

Saariselkä, Finland

5-9 June 2006

President: Dr Ken Whelan (European Union)
Vice-President: Mr Arni Isaksson (Iceland)
Secretary: Dr Malcolm Windsor

CNL(06)46

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### CONTENTS

<table>
<thead>
<tr>
<th>CONTENTS</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report of the Twenty-Third Annual Meeting of the Council of the North</td>
<td></td>
</tr>
<tr>
<td>Atlantic Salmon Conservation Organization, 5-9 June 2006, Hotel Riekonlinna, Saariselkä, Finland</td>
<td></td>
</tr>
<tr>
<td>Annex 1 Welcoming Address made by Mr Pekka Pesonen, State Secretary,</td>
<td></td>
</tr>
<tr>
<td>Finnish Ministry of Agriculture and Forestry</td>
<td>27</td>
</tr>
<tr>
<td>Annex 2 Opening Statement made by the President of NASCO</td>
<td>29</td>
</tr>
<tr>
<td>Annex 3 Opening Statements made by the Parties</td>
<td>31</td>
</tr>
<tr>
<td>Annex 4 Opening Statement made by Non-Government Organizations</td>
<td>45</td>
</tr>
<tr>
<td>Annex 5 List of Participants</td>
<td>49</td>
</tr>
<tr>
<td>Annex 6 Agenda, CNL(06)42</td>
<td>55</td>
</tr>
<tr>
<td>Annex 7 2007 Budget, 2008 Forecast Budget and Schedule of Contributions, CNL(06)43</td>
<td>57</td>
</tr>
<tr>
<td>Annex 8 Report of the ICES Advisory Committee on Fishery Management,</td>
<td>61</td>
</tr>
<tr>
<td>CNL(06)7 (Sections 1, 2 and 6 only)</td>
<td></td>
</tr>
<tr>
<td>Annex 9 Scientific Advice from ICES – Assessing Genetic Effects, CNL(06)41</td>
<td>81</td>
</tr>
<tr>
<td>Annex 10 Catch Statistics - Returns by the Parties, CNL(06)8</td>
<td>89</td>
</tr>
<tr>
<td>Annex 11 Results from Research Vessel Survey in the Labrador Sea, Fall</td>
<td></td>
</tr>
<tr>
<td>2005 (tabled by Canada), CNL(06)37</td>
<td>93</td>
</tr>
<tr>
<td>Annex 12 Report of the Fifth Meeting of the International Atlantic Salmon Research Board, CNL(06)11</td>
<td>99</td>
</tr>
<tr>
<td>Annex 13 Discussion Document from the Standing Scientific Committee on Options for Changing the Request for Advice from ICES, CNL(06)12</td>
<td>135</td>
</tr>
<tr>
<td>Annex 14 Request for Scientific Advice from ICES, CNL(06)13</td>
<td>145</td>
</tr>
<tr>
<td>Annex 15 Report of the ‘Next Steps for NASCO’ Task Force, CNL(06)16</td>
<td>147</td>
</tr>
<tr>
<td>Annex 16 Terms of Reference for the 2006/2007 Ad Hoc Review Group, CNL</td>
<td>169</td>
</tr>
<tr>
<td>Annex</td>
<td>Title</td>
</tr>
<tr>
<td>-------</td>
<td>--------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>17</td>
<td>Terms of Reference for a NASCO Public Relations Group, CNL(06)36</td>
</tr>
<tr>
<td>18</td>
<td>Returns under Articles 14 and 15 of the Convention, CNL(06)17</td>
</tr>
<tr>
<td>19</td>
<td>Supplementary Return – EU (France), CNL(06)27</td>
</tr>
<tr>
<td>20</td>
<td>Amendments to the ‘Williamsburg Resolution’, CNL(06)18</td>
</tr>
<tr>
<td>21</td>
<td>Report of the Meeting between the International Salmon Farmers’ Association (ISFA) and</td>
</tr>
<tr>
<td></td>
<td>Representatives of the Secretariat, CNL(06)19</td>
</tr>
<tr>
<td>22</td>
<td>Interim Report by the Co-Conveners of the NASCO/ICES Bergen Symposium, CNL(06)22</td>
</tr>
<tr>
<td>23</td>
<td>Russian Studies of Distribution and By-catch of Atlantic Salmon Post-Smolts in the</td>
</tr>
<tr>
<td></td>
<td>Norwegian Sea in 2005, CNL(06)32</td>
</tr>
<tr>
<td>24</td>
<td>St Pierre and Miquelon Salmon Fishery, CNL(06)23</td>
</tr>
<tr>
<td>25</td>
<td>Acid Rain and Atlantic Salmon in Eastern Canada (tabled by Canada), CNL(06)40</td>
</tr>
<tr>
<td>26</td>
<td>Press Release, CNL(06)47</td>
</tr>
<tr>
<td>27</td>
<td>List of Council Papers</td>
</tr>
</tbody>
</table>
1. Opening Session

1.1 The President, Dr Ken Whelan, opened the meeting. The State Secretary, of the Ministry of Agriculture and Forestry, Mr Pekka Pesonen, welcomed delegates to Saariselkä (Annex 1). The President thanked Mr Pesonen for his welcoming address and then made an opening statement on the work of the Organization (Annex 2).

1.2 The representatives of Canada, Denmark (in respect of the Faroe Islands and Greenland), the European Union, Iceland, Norway, the Russian Federation and the United States of America made opening statements (Annex 3).

1.3 An Opening Statement was made on behalf of all the 17 Non-Government Organizations (NGOs) attending the Annual Meeting (Annex 4).

1.4 The President expressed appreciation to the Parties and to the observer organizations for their statements and closed the Opening Session.

1.5 A list of participants is given in Annex 5.

2. Adoption of Agenda

2.1 The Council adopted its agenda, CNL(06)42 (Annex 6), but reorganised the order of the agenda items so as to allow decisions to be taken on the ‘Next Steps’ strategy at the start of the meeting.

3. Election of Officers

3.1 The Council unanimously re-elected Dr Ken Whelan (European Union) as President and Mr Arni Isaksson (Iceland) as Vice-President.

4. Financial and Administrative Issues

4.1 Report of the Finance and Administration Committee

The Acting Chairman of the Finance and Administration Committee, Dr Boris Prischepa (Russian Federation), presented the report of the Committee, CNL(06)5. On the recommendation of the Committee the Council took the following decisions:

(i) to accept the audited 2005 annual financial statement, FAC(06)2;

(ii) to adopt a budget for 2007 and to note a forecast budget for 2008, CNL(06)43 (Annex 7);
(iii) to appoint PricewaterhouseCoopers (PWC) of Edinburgh as auditors for the 2006 accounts, or such other company as may be agreed by the Secretary following consultation with the Chairman of the Finance and Administration Committee;

(iv) to adopt the report of the Finance and Administration Committee (except for the MoU with ICES, which is dealt with in paragraph 4.2 below).

The President thanked Dr Prischepa for his valuable work and for that of the Committee.

4.2 The Council asked the Secretary to liaise with ICES regarding the new MoU. Whilst it was generally acceptable, there was one element missing which was to cover the situation where NASCO did not ask for catch advice. However, there were responses to other questions to which NASCO would need access, which were simply information brought to the Working Group on North Atlantic Salmon (WGNAS) by the Parties and integrated by the WGNAS, but which NASCO would not necessarily need to be peer-reviewed. The Council felt that ways should be explored to obtain such advice without the peer review process and without the associated costs, which could usefully release funds to the SALSEA programme. The Council reiterated its appreciation of ICES’ work, particularly on the catch advice. There was no doubt that advice would always be needed but not necessarily every year.

5. Scientific, Technical, Legal and Other Information

5.1 Secretary’s Report

The Secretary made a report to the Council on: observers at NASCO’s meetings, CNL(06)24; fishing for salmon in international waters; the Tag Return Incentive Scheme; a review of international salmon-related literature published in 2005; and the Twenty-Year Milestones report. This report had been very well received and will be published in Russian. The Secretary indicated that it would be possible to have this report produced in other languages if a Party or jurisdiction so wished.

In accordance with Financial Rule 5.5, the Secretary reported on the receipt of contributions for 2006. All contributions had been received and there were no arrears. The Secretary thanked the Parties for their prompt responses to the call for contributions.

The Secretary indicated that since the last Annual Meeting of the Council, one new non-government organization, Stop Salmon Drift Nets Now (Ireland), had been granted observer status. In addition, the Atlantic Salmon Federation (US and Canada) and WWF (US) had been readmitted as observers. The Council welcomed these observer organizations.

5.2 Report on the Activities of the Organization in 2005

In accordance with Article 5, paragraph 6 of the Convention, the Council adopted a report to the Parties on the Activities of the Organization in 2005, CNL(06)6.
5.3 **Announcement of the Tag Return Incentive Scheme Grand Prize**

The President announced that the winner of the $2,500 Grand Prize was Mr Roald Somby, Alta, Norway. The Council offered its congratulations to the winner.

5.4 **Scientific Advice from ICES**

The representative of ICES presented the report of the Advisory Committee on Fishery Management (ACFM) to the Council, CNL(06)7 (Annex 8) and CNL(06)41 (Annex 9).

5.5 **Catch Statistics and their Analysis**

The Secretary tabled a statistical paper presenting the official catch returns by the Parties for 2005, CNL(06)8 (Annex 10), and historical data for the period 1960-2005, CNL(06)9. The statistics for 2005 are provisional. A paper summarising the information provided by the Parties on unreported catches was tabled, CNL(06)10. These returns indicated that in 2005 the unreported catches were between 584-807 tonnes compared to a preliminary reported catch of 2,117 tonnes. The Council welcomed the information in this document which presented the information in a transparent manner. The Council recognised the importance of a further exchange of information among the Parties on unreported catches and agreed to hold a Special Session on this topic at its Twenty-Fourth Annual Meeting. The Secretary was asked to develop a proposal for this Special Session and liaise with the Parties on the arrangements.

5.6 **Scientific Research Fishing in the Convention Area**

A report on scientific research fishing conducted since the last Annual Meeting was made by Canada, CNL(06)37 (Annex 11). The representative of Norway indicated that while there had been no scientific research fishing for salmon in 2005 in the Norwegian Sea, 5 post-smolts and 11 adult salmon had been caught during research fishing for pelagic fish species. He reported that in the period 1982-2004, Norwegian research cruises for salmon had resulted in the capture of more than 7,000 post-smolts in the Norwegian Sea. Much of the data have been analysed and publications will follow. Work is ongoing to develop a smolt migration model based on tag recoveries. He referred to the increasing competition for research vessel time.

5.7 **Report of the International Atlantic Salmon Research Board**

The report of the Fifth Meeting of the Board, CNL(06)11 (Annex 12), was presented by the Chairman of the Board, Mr Jacque Robichaud. He reported that the Board had updated its inventory of research related to salmon mortality in the sea, had received advice from its Scientific Advisory Group, and had developed and adopted a proposal for the way forward to promote the SALSEA programme and its realisation. The Board had also considered a number of finance and administrative issues.

The representative of the NGOs referred to the contribution NGOs can make to the SALSEA programme. The Atlantic Salmon Federation has, through a Resolution, pledged support for, and participation in, the SALSEA programme, including taking advocacy action and coordinating its research activities within the scope of the
SALSEA programme. He noted that the Atlantic Salmon Trust has endorsed the SALSEA programme and allocated funds towards it which, to date, have been used to conduct two research cruises in the North Atlantic to test new trawl gear in conjunction with the Scottish Executive and the Institute of Marine Research, Bergen, Norway. While it had not been possible to secure ship-time in 2006, he indicated that the Trust wishes to play its full part in the SALSEA programme and hopes the Parties will be able to assist secure the ship-time required.

5.8 **Report of the Standing Scientific Committee**

One of the recommendations in the Strategic Approach for NASCO’s ‘Next Steps’ (CNL(05)49) was that the Commissions of NASCO should consider whether regulatory measures for fisheries could be adopted and scientific advice from ICES sought on a biennial or multi-year basis. The Council asked that the Standing Scientific Committee develop a discussion document on the options for amending the form and nature of the request for scientific advice in the event that multi-annual regulatory measures are agreed. The Chairman of the Standing Scientific Committee introduced this discussion document, CNL(06)12 (Annex 13).

The Chairman of the Standing Scientific Committee presented a draft request to ICES for scientific advice. Upon the recommendation of the Committee, the Council adopted a request for scientific advice from ICES, CNL(06)13 (Annex 14). The Parties noted that the priority for ICES should be to develop the framework of indicators and to provide the catch advice but if progress can also be made in addressing question 1.4 of the request for advice, that would be welcomed.

6. **Next Steps for NASCO**

6.1 **Special Session: Progress with the Next Steps Strategy**

(a) **Overview of progress with decisions taken in Vichy**

At the Council’s Twenty-Second Annual Meeting, a Strategic Approach for NASCO’s ‘Next Steps’ (CNL(05)49) had been adopted. The Council had wished to move quickly to implement the recommendations from the ‘Next Steps for NASCO’ Working Group but recognised that while some recommendations could be adopted for immediate implementation, others would require further consideration. The Secretary introduced document CNL(06)14 which provided a summary of progress with those decisions identified by the Council for immediate implementation. The Council welcomed the progress made since the last Annual Meeting. A paper outlining options for improved cooperation with other international organizations on issues of mutual interest was also presented, CNL(06)15.

(b) **Report of the ‘Next Steps for NASCO’ Task Force**

The Council has recognised that the decisions concerning two central themes of the ‘Next Steps’ Strategy, i.e. implementation, commitment and accountability and transparency and inclusivity, would require further consideration prior to their implementation. It had, therefore, established a Task Force under the Chairmanship of Mr Gudmundur Helgason (Iceland) to further develop recommendations in relation to these two aspects of the Strategy. The Chairman presented the report of the
The representative of the NGOs indicated that while the NGOs’ greatly welcomed the Next Steps process, there is some disappointment that there has not been more progress with establishing the public relations group. The NGOs are very supportive of this initiative and willing to participate. He indicated that the need for stakeholder consultation meetings had, perhaps, diminished slightly given the NGOs greater involvement in NASCO’s work but occasional meetings may still be valuable. He indicated that the NGOs supported the recommendations in the Task Force report concerning implementation.

6.2 Decisions by the Council

In the light of the information presented in documents CNL(06)14, CNL(06)15 and CNL(06)16, the Council decided:

(1) to adopt the ‘Guidelines for the Preparation of Implementation Plans and for Reporting on Progress’ as contained in Annex 3 of the Task Force report, CNL(06)16;

(2) to set up an ad hoc Review Group and a proposed schedule of activities for the coming year, CNL(06)39 (Annex 16).

(3) to adopt the Task Force’s recommendations in relation to NGO participation at NASCO’s meetings as contained in Annex 4 of CNL(06)16. The Secretary was asked to amend the Conditions for Attendance by Observers at NASCO meetings accordingly;

(4) to hold further stakeholder consultation meetings in 2009, but a final decision on this will be taken in the light of any advice from the Public Relations Group on this topic (see paragraph 6 below);

(5) to support the approach for further improving cooperation with other intergovernmental organizations outlined in document CNL(06)15;

(6) to establish a Public Relations Group to advise on implementation of the PR issues identified in the Next Steps process. It asked the Secretary to chair this group in which he and Mr Steinar Hermansen (Norway) would be those with the in-depth knowledge of NASCO, there would be two PR professionals nominated by the Parties (one from the EU and one from the USA), one representative from Denmark (in respect of the Faroe Islands and Greenland) and two representatives from NASCO’s accredited NGOs. There would be consultations with Heads of Delegations when initial steps in setting up this group had been taken. The Terms of Reference are contained in document CNL(06)36 (Annex 17).

The representative of the NGOs indicated that the NGOs proposed to handle the review process by assigning a lead NGO to coordinate the responses of national NGOs to that Party’s Implementation Plan. He indicated that he believed that the
representatives appointed to the *Ad Hoc* Review Group from NASCO’s Parties will conduct a first-class review.

7. **Conservation, Restoration, Enhancement and Rational Management of Atlantic Salmon under the Precautionary Approach**

7.1 **Measures Taken in Accordance with Articles 14 and 15 of the Convention**

The Secretary presented a report on the returns made under Articles 14 and 15 of the Convention, CNL(06)17 (Annex 18). A supplementary return was made by the European Union (France), CNL(06)27 (Annex 19).

7.2 **Special Session: Reports by the Parties or relevant jurisdictions on progress in implementing NASCO’s agreements**

The ‘Next Steps for NASCO’ Task Force had recommended that during the Council’s 2006 Annual Meeting, a Special Session should be held during which the Parties and relevant jurisdictions would report on progress towards development of their draft Implementation Plans. The intention of this Special Session was to provide the Parties with an opportunity to compare experiences in development of their Implementation Plans and to receive feedback on the progress to date. During this Special Session, presentations were made by Canada, the European Union (Finland, Ireland, Sweden, United Kingdom - Scotland, England and Wales), Iceland, Norway, the Russian Federation and the USA. There were no presentations made by Denmark (in respect of the Faroe Islands and Greenland) and a number of EU Member States. Draft Implementation Plans were tabled by Canada (CNL(06)35), EU (Finland) (CNL(06)44), EU (Ireland) (CNL(06)33), EU (UK – England and Wales) (CNL(06)28), EU (UK – Scotland) (CNL(06)31), Iceland (CNL(06)26), Norway (CNL(06)30), the Russian Federation (CNL(06)34) and the USA (CNL(06)29). The President welcomed the progress made by the Parties and confirmed that the intention is that these plans will be submitted by the Parties to the NASCO Secretariat by October 2006 so that they can be subject to critical review during November 2006 – March 2007.

The President thanked the participants for their very comprehensive presentations which provided a wide range of possible formats for future Implementation Plans. He noted that there are a number of challenges ahead. First, he noted that NGO input is essential and he suggested that perhaps they could find a way to contribute to the formulation of Implementation Plans based on their own experiences in catchment or watershed initiatives. Second, there may be difficulties with cross-cutting issues, particularly in areas such as water quality, forestry, hydro power, etc. He suggested that a booklet or pamphlet could be compiled outlining the need for cross-cutting initiatives in salmon management and encouraging other sectors to support the Parties’ planned actions. Such a booklet could be used to raise awareness of these issues in other sister agencies and bodies responsible for the management of related sectors. Third, it was interesting that, despite the extent of the presentations, there are still many countries which have yet to formulate their Implementation Plans. He noted that in one of the presentations, it had been stated that it is not yet possible to manage a catchment on the basis of 81 tributaries, and questioned why this should be so. In addition to the five-year plans, he suggested that perhaps there should be a 10-
or even a 20-year vision. He considered that the Next Steps process encourages NASCO and its Parties to think new thoughts and to do new things.

The representative of the NGOs thanked the Parties for the preparation of Implementation Plans; the NGOs acknowledge the effort required to produce them. He indicated that the drafts presented during the Special Session appeared more like management approaches than Implementation Plans. He stated that the wording of the Next Steps for NASCO Working Group report spoke about action plans with commitments and timescales linked, of course, to the implementation of NASCO agreements. While the NGOs recognized that this is the first stage in the process, they would like to see some evolution when the plans are completed. In addition, the NGOs would offer the following suggestions:

- contributions from private voluntary and NGO groups such as river trusts and fishing associations should be included. These groups can also contribute resources in terms of both manpower and funding. The best way to incorporate these contributions is to ensure full consultation with such groups during the preparation of plans;

- if action is limited by a lack of resources or political constraints, these might be noted so that the NGOs can assist the Parties by lobbying governments.

He concluded by indicating that the NGOs look forward to receiving the completed plans by the Parties and to making NASCO a more effective organization.

7.3 Aquaculture, Introductions and Transfers, and Transgenics

(a) Amendments to the Williamsburg Resolution

At its 2003 Annual Meeting the Council adopted the Resolution by the Parties to the Convention for the Conservation of Salmon in the North Atlantic Ocean to Minimise Impacts from Aquaculture, Introductions and Transfers and Transgenics on the Wild Salmon Stocks, the Williamsburg Resolution, CNL(03)57. In adopting the Williamsburg Resolution the Council had recognized that it was a “living document” that could evolve in future. In 2004 the Council had adopted a new definition of “transgenic” and had amended the Guidelines for Action on Transgenic Salmon. The Council had also adopted Guidelines for Stocking Atlantic Salmon. In 2005, the Council had agreed that the Memorandum of Understanding between Canada and the US with regard to introductions and transfers be appended to the Resolution.

Following adoption of the Williamsburg Resolution concerns had been raised by the salmon farming industry that due process had not been followed in its development. At the Twenty-Second Annual Meeting comments on the Williamsburg Resolution from the International Salmon Farmers’ Association (ISFA) were tabled, CNL(05)30. No comments had been received from the salmon farming industries in Scotland or Russia, which are not members of ISFA. The Council had asked that the Secretary develop a response to these comments in consultation with the Parties, which had been sent to the President of ISFA on 8 November 2005. At the meeting between ISFA and the NASCO Secretariat, ISFA had indicated that it could accept the proposals from NASCO with some exceptions. Details of the proposed changes to the Williamsburg Resolution, taking into account the comments from ISFA, the responses
from NASCO, and the discussions at the meeting between ISFA and the NASCO Secretariat, were presented, CNL(06)18 (Annex 20).

The representative of the NGOs indicated that the Williamsburg Resolution was a flagship agreement and is vital for the conservation of wild salmon. The NGOs are concerned about the addition of the word “significant” since it is open to interpretation in different ways. He referred to the issue of transparency and dialogue and believed that, had the NGOs been able to attend the Liaison Group meeting, they would have been able to raise this concern with the wording at an earlier stage. The Parties recognized that the word “significant” meant different things to different people, but could accept it, given the emphasis in the Williamsburg Resolution on the burden of proof and risk assessments, and the need to move forward and make progress on measures to minimise impacts of aquaculture in cooperation with the industry.

The representative of Norway indicated that he was prepared to accept the changes in order to move forward but he did not like the use of the word “significant” and it would not be used in the Norwegian Implementation Plan. He also felt that once NASCO had developed an agreement, it was not a good principle to weaken it in order to maintain good relations with stakeholders.

The Council agreed to these changes and asked that the Secretariat issue the revised Resolution as a brochure.

The representative of the NGOs indicated that the NGOs could understand the need to move forward on measures to minimise impacts of aquaculture, but they believed that the use of the word “significant” was a mistake given the lack of a clear definition. He felt it sent the wrong signal to industry.

(b) Liaison with the Salmon Farming Industry

In accordance with the decision of Heads of Delegations, a meeting between representatives of the International Salmon Farmers’ Association (ISFA) and the NASCO Secretariat was held in Brussels on 9 May 2006. The Secretary introduced the report of the meeting, CNL(06)19 (Annex 21). The Council agreed to the recommendation in the report to hold a full Liaison Group meeting over one and a half days immediately prior to the Boston Seafood Show (which is taking place during 11-13 March 2007). The Council also agreed to the proposals for follow-up action in the light of the Trondheim and Bergen meetings, and asked that the Secretary liaise with the President of ISFA in developing the agenda for the meeting so that it reflects the various topics identified in the report.

The representative of the NGOs indicated that there had been a long campaign to gain admission to the Liaison Group. The NGOs had only been able to make statements concerning aquaculture at NASCO’s meeting when they should have been made to the industry. He indicated that it should be for the NGOs to nominate who their representative will be. They would, therefore, decline this offer. The NGOs asked how representative of the industry ISFA was, and proposed that there might be a new dialogue with the industry, led by an NGO, which would establish a dialogue with the Scottish Producers’ Organization which represents 90% of the Scottish industry. The
Council asked the Secretary and Chairman of the Liaison Group to liaise with the Chairman of the NGOs to further clarify this proposal.

The Council noted that ISFA had proposed that a representative of WWF (US) be admitted as an NGO representative to future Liaison Group meetings. The Council also noted that, at the meeting, the NASCO representatives, while welcoming this change of attitude, had suggested that it would be appropriate for the Chairman of NASCO’s NGOs to be the representative on the Liaison Group, together with a representative of WWF (US). The Council supported this approach, and asked the Secretary and Chairman of the Liaison Group to liaise with ISFA on this matter.

(c) Report of the Trondheim Workshop ‘Wild and Farmed Salmon – Working Together’

The report of the Liaison Group’s Workshop ‘Wild and Farmed Salmon – Working Together’ was made available to the Council. The Council welcomed this report and agreed to take a number of actions to follow up on the progress made during this Workshop (see paragraph 7.3(b) above). The Council thanked the Steering Committee of the Workshop (Drs Ken Whelan and Peter Hutchinson, and Mr James Ryan and Mr Kjell Maroni) for organising an excellent meeting and producing a high-quality report.

(d) Report of the ICES/NASCO Bergen Symposium

The Secretary introduced an interim report from the Co-Conveners (Drs Malcolm Windsor and Lars Petter Hansen) on the ICES/NASCO Symposium ‘Interactions between aquaculture and wild stocks of Atlantic salmon and other diadromous fish species: Science and Management, Challenges and Solutions’, CNL(06)22 (Annex 22). The representative of Norway indicated that the symposium had helped in providing a platform for future efforts to minimise impacts of aquaculture, and there had already been new initiatives in Norway to minimise escapes. The Council congratulated the Co-Conveners on a successful and important symposium.

7.4 New or emerging opportunities for, or threats to, salmon conservation and management

In accordance with the Strategic Approach for NASCO’s Next Steps, this item had been included on the agenda for the Twenty-Third Annual Meeting and ICES had been requested to provide relevant information.

The representative of the Russian Federation referred to a continuing programme to study by-catch of salmon post-smolts in pelagic fisheries in the Norwegian Sea, CNL(06)32 (Annex 23). This programme began in 2002 and consists of pelagic fish surveys and screening of the commercial catch on mackerel vessels. The results of this study indicated that the by-catch of post-smolts and adult salmon is low. The findings have been reported in full in the ICES advice. He indicated that the programme will continue in 2006.

The President referred to two significant concerns that came out of the Bergen symposium, i.e. the threats to wild salmon stocks from G. salaris and the genetic interactions of escaped farmed salmon. He indicated that there is a need to raise
public awareness of the threats from *G. salaris* and to continue to make progress through the Liaison Group on the issue of genetic impacts from farmed fish.

7.5 **Report of the Working Group on Bio-economic Modelling**

The representative of the US indicated that at its last meeting, the Council had agreed that a Technical Working Group (TWG) meeting should be held to consider the development of a bio-economic model. This decision was consistent with the decision in the ‘Strategic Approach for NASCO’s Next Steps’ to continue and expand existing efforts to incorporate social and economic factors in the Organization’s work. She reported that a US economist, Dr John Ward, is leading this effort and the US has committed to holding a TWG meeting to advance this work. However, due to unavoidable circumstances (Hurricane Katrina) the TWG was unable to meet before the Twenty-Third Annual Meeting, but the intention is to schedule a TWG meeting in early 2007, perhaps in March 2007, in conjunction with another NASCO scheduled meeting. Prior to that, Dr Ward intends to circulate additional information concerning the proposed TWG to support preparations by the participants.

7.6 **Progress with development of the Database of Salmon Rivers**

During 2004/2005, the US had developed a web-based database based on the inventory format proposed in the NASCO Plan of Action for Application of the Precautionary Approach to the Protection and Restoration of Atlantic Salmon Habitat. Following testing, this database had been made available for data entry by NASCO’s Parties and in 2004 the Council agreed that:

- the Parties should update the original NASCO salmon rivers database information annually (via the expanded web-based database) to correct errors and inaccuracies and to ensure the specific information conformed to the new format. It was recognised that this process should not involve a significant amount of time and effort;
- the Parties should consider using the database to report basic salmon habitat and habitat impacts information;
- as data and resources permit, the Parties should enter generalised juvenile and adult salmon production data although such data entry would be optional but of benefit to the database.

Last year, the Council agreed that the database should be transferred to the NASCO website. A report on progress was presented, CNL(06)20. The transfer of the database is now complete and, after re-design of the appearance of the web pages, the database is available for data entry by the Parties. The Council encouraged the Parties to undertake the tasks identified above as resources permit.

7.7 **St Pierre and Miquelon Salmon Fishery**

A report on the sampling programme at St Pierre and Miquelon in 2005, information on the regulatory framework for managing the fishery and details of licences issued and catches was made available to the Council, CNL(06)23 (Annex 24). In this document the French authorities indicated that they have continued to pursue the commitment made with regard to gathering scientific information on salmon stocks at St Pierre and Miquelon and with regard to management and conservation efforts. It is
the intention to put in place a procedure with a view to reducing the number of permits granted and hence reduce progressively the catches made on fragile North American stocks. The Council noted that there had been discussions on this matter in the North American Commission, and welcomed the continuing cooperation from France (in respect of St Pierre and Miquelon). The Secretary was asked to convey appreciation to the French authorities for their continuing cooperation and to continue to invite them to participate in future NASCO meetings.

The representative of the NGOs indicated that given the status of North American stocks, many of which are below their conservation limits, and the ACFM advice to reduce exploitation of mixed stocks, they had serious concerns at the increase in catches at St Pierre and Miquelon. He indicated that they welcome the commitment by France (in respect of St Pierre and Miquelon) to reduce catches and urged that this be carried out as soon as possible in line with the advice from ICES and NASCO.

### 7.8 Impacts of Acid Rain on Atlantic Salmon

A report on acid rain was tabled by Canada, CNL(06)40 (Annex 25). The representative of the US referred to a more detailed report on acid rain made to the North American Commission. In the period 2003-2005 there had been investigations into water chemistry in Maine rivers and a streamside rearing study had been conducted to assess physiological effects of river chemistry on smolts. The results from streamside studies did not show any water-chemistry-related effects on smolt physiology in the Dennys River, which is where the US has been considering conducting a liming project. However, extensive water quality monitoring showed that low pH episodes occur in Maine rivers in the spring and fall. Approximately 9% of juvenile rearing habitat in listed salmon rivers has documented low pH (below 5.6) during the spring, and this habitat is considered to be impaired. However, it would be premature to assume that river liming on a large scale would contribute significantly to recovering endangered salmon populations.

The representative of Norway referred to the significant reduction in acid rain in Europe due to the effectiveness of international agreements. While this is a very positive development, there are still serious issues in southern Norway. Annual expenditure in Norway associated with the liming of 22 acidified salmon rivers is around £4 million.

The representative of the NGOs expressed the NGOs’ disappointment that there has been no progress between Canada and the US in developing and applying mitigation strategies in acid rain-impacted rivers in Nova Scotia and Maine. A liming project led by ASF volunteers in Nova Scotia is in need of government leadership to expand it to other rivers. He noted that liming in Norway has produced dramatic results in restoring Atlantic salmon.

### 7.9 Reports on the Work of the Three Regional Commissions

The Chairman of each of the three regional Commissions reported to the Council on the activities of their Commission.
8. **Other Business**

8.1 There was no other business.

9. **Date and Place of Next Meeting**

9.1 The Council accepted an invitation from the United States of America to hold its Twenty-Fourth Annual Meeting in Bar Harbor, Maine, during 4-8 June 2007.

9.2 The Council decided to hold its Twenty-Fifth Annual Meeting during 2-6 June 2008 in Edinburgh or elsewhere at the invitation of a Party.

10. **Report of the Meeting**

10.1 The Council agreed the report of the meeting, CNL(06)46.

11. **Press Release**

11.1 The Council adopted a press release, CNL(06)47 (Annex 26).

Note: A list of all Council papers is contained in Annex 27. The annexes mentioned above begin on page 27, following the French translation of the report of the meeting.
1. Séance d’ouverture

1.1 Le Président, Dr Ken Whelan, a ouvert la réunion. M. Pekka Pesonen, Secrétaire d’Etat, du ministère de l’Agriculture et des Forêts, a souhaité aux délégués la bienvenue à Saariselkä (annexe 1). Le Président a remercié Mr Pesonen pour son allocution de bienvenue et a ensuite prononcé une déclaration d’ouverture portant sur le travail de l’Organisation (annexe 2).

1.2 Les représentants du Canada, du Danemark (pour les Îles Féroé et le Groenland), de l’Union européenne, de l’Islande, de la Norvège, de la Fédération de Russie et des États-Unis d’Amérique ont chacun prononcé leur déclaration d’ouverture (annexe 3).

1.3 Des déclarations d’ouverture ont été prononcées conjointement, au nom des 17 organisations non gouvernementales (ONG) présentes à la Réunion annuelle (annexe 4).

1.4 Le Président a exprimé sa reconnaissance aux Parties et aux organisations, présentes à titre d’observateur, pour leurs déclarations et a clos la séance d’ouverture.

1.5 Une liste des participants figure à l’annexe 5.

2. Adoption de l’ordre du jour

2.1 Le Conseil a adopté l’ordre du jour, CNL(06)42 (annexe 6). La liste des différents points de l’ordre du jour a toutefois été réorganisée de façon à pouvoir prendre des décisions concernant la Stratégie des « décisions à prendre à l’avenir par l’OCSAN » en début de réunion.

3. Election des membres du Comité directeur

3.1 Le Conseil a réélu Président, à l’unanimité, Dr Ken Whelan (Union européenne) et Vice-président, M. Arni Isaksson (Islande).

4. Questions administratives et d’ordre financier

4.1 Rapport de la Commission financière et administrative

Le Président intérimaire de la Commission financière et administrative, Dr Boris Prischepa (Fédération de Russie), a présenté le rapport de la Commission, CNL(06)5. Suite aux recommandations de la Commission, le Conseil a pris les décisions suivantes :

(i) accepter la déclaration financière révisée de 2005, FAC(06)2 ;
adpter un budget pour 2007 et prendre acte du budget prévisionnel pour 2008, CNL(06)43 (annexe 7) ;

nommer soit PricewaterhouseCoopers (PWC) d’Edimbourg, vérificateurs des comptes pour l’an 2006, ou toute autre société recevant l’approbation du Secrétaire après consultation avec le Président de la Commission financière administrative ;

adopter le rapport de la Commission financière et administrative (à l’exception du Protocole d’accord convenu avec le CIEM, traité au paragraphe 4.2 ci-dessous).

Le Président a remercié Dr Prischepa et la Commission pour leur précieux travail.

4.2 Le Conseil a prié le Secrétaire de contacter le CIEM à propos du nouveau protocole d’accord. Celui-ci était, dans l’ensemble, acceptable, mais il y manquait néanmoins un élément, à savoir l’approche à adopter lorsque l’OCSAN ne faisait pas de demande de recommandations de capture. Outre ceci, l’OCSAN aurait également besoin d’accéder aux réponses formulées à partir des renseignements fournis par les Parties au Groupe de travail sur le Saumon de l’Atlantique Nord (GTSAN) et compilés par ce dernier, renseignements dont une corroboraison par des pairs ne semblait pas, selon l’OCSAN, nécessairement obligatoire. Le Conseil était d’avis que l’on devait explorer les différentes façons d’obtenir ces réponses sans passer par la procédure de l’examen par les pairs, évitant ainsi les coûts qui lui sont associés. Ceci permettrait par ailleurs de libérer des fonds qui pourraient être ainsi canalisés vers le programme SALSEA. Le Conseil a de nouveau indiqué son appréciation du travail accompli par le CIEM, particulièrement dans le domaine des recommandations de capture qui continueraient certes à être utiles, mais dont on n’aurait pas nécessairement besoin chaque année.

5. Questions scientifiques, techniques, juridiques et autres

5.1 Rapport du Secrétaire

Le Secrétaire a rendu compte au Conseil, de par son rapport CNL(06)24, des questions suivantes : observateurs aux réunions de l’OCSAN ; pêche au saumon dans les eaux internationales ; programme d’encouragement au renvoi des marques ; examen des publications internationales portant sur le saumon parues en 2005 ; et rapport retraçant les Vingt années de l’OCSAN. Ce rapport avait été très bien accueilli et sera traduit en Russe. Le Secrétaire a indiqué que ce rapport pourrait, à la demande d’une Partie or d’une juridiction, être traduit en d’autres langues.

Conformément au règlement financier 5.5, le Secrétaire a dressé un rapport sur les contributions reçues pour 2006. Il n’en manquait aucune. Il n’y avait donc aucun arrière. Le Secrétaire a remercié les Parties d’avoir répondu promptement à la demande de contributions.

Le Secrétaire a indiqué que, depuis la dernière Réunion annuelle du Conseil, un nouvel organisme non gouvernemental, Stop Salmon Drift Nets Now (« Plus de filets dérivants ! ») (Irlande), avait obtenu le statut d’observateur. De plus, la Fédération du
Saumon Atlantique (Etats-unis et Canada) et le WWF (Etats-Unis) avaient été réadmis en tant qu’observateurs. Le Conseil a souhaité la bienvenue à ces observateurs.

5.2 **Rapport sur les activités de l’Organisation de 2005**

Le Conseil a adopté le rapport d’activités 2005 de l’Organisation, CNL(06)6, adressé aux Parties conformément à l’article 5, paragraphe 6, de la Convention.

5.3 **Annonce du gagnant du Grand Prix du Programme d’encouragement au renvoi des marques**

Le Président a annoncé que le gagnant du Grand Prix de 2 500 $ était M. Roald Somby, d’Alta, en Norvège. Le Conseil a offert ses félicitations au gagnant.

5.4 **Recommandations scientifiques du CIEM**

Le représentant du CIEM a présenté au Conseil le rapport du Comité Consultatif sur la Gestion des Pêcheries (CCGP), CNL(06)7 (annexe 8) et CNL(06)41 (annexe 9).

5.5 **Statistiques de capture et analyse**

Le Secrétaire a soumis un document statistique portant sur les déclarations de captures officielles effectuées par les Parties en 2005, CNL(06)8 (annexe 10), et sur les données historiques pour la période de 1960 à 2005, CNL(06)9. Les statistiques de 2005 étaient provisoires. Un résumé des informations fournies par les Parties sur les captures non déclarées a également été présenté, CNL(06)10. Ces renvois d’informations indiquaient, qu’en 2005, les captures non déclarées étaient de l’ordre de 584 à 807 tonnes et non pas de 2,117 tonnes, comme il avait été prédit antérieurement. Le Conseil a accueilli favorablement l’information, présentée avec transparence, de ce document. Le Conseil a reconnu qu’il importait que les Parties puissent échanger une fois de plus les renseignements qu’elles détenaient sur ce sujet de captures non déclarées et a convenu d’organiser une Séance spéciale sur cette question lors de sa Vingt-quatrième Réunion annuelle. Le Secrétaire a été prié d’élaborer une proposition pour cette Séance spéciale et de se mettre en contact avec les Parties à propos des préparatifs.

5.6 **Pêche menée à des fins de recherche scientifique dans la zone de la Convention**

Le représentant du Canada a présenté un compte rendu sur la pêche menée à des fins de recherche scientifique depuis la dernière Réunion annuelle, CNL(06)37 (annexe 11). Le représentant de la Norvège a indiqué que, malgré l’absence de pêche menée à des fins de recherche scientifique sur le saumon en 2005 dans la mer de Norvège, 5 post-smolts et 11 saumons adultes avaient été capturés au cours de la pêche menée à des fins de recherche scientifique sur les espèces pélagiques. Il a affirmé qu’entre 1982 et 2004, les sorties effectuées à des fins de recherche sur le saumon par la Norvège avaient entraîné un prélèvement de plus de 7,000 post-smolts dans la mer de Norvège. Les données avaient presque toutes été analysées et seraient bientôt publiées. L’élaboration d’un modèle de migration des smolts, basé sur la récupération de marques, était en cours. Le représentant de la Norvège a signalé qu’une compétition accrue avait rendu l’accès aux bateaux de recherche difficile.
5.7 **Rapport de la Commission internationale de recherche sur le saumon atlantique**

M. Jacque Robichaud, Président de la Commission, a présenté le rapport de la Cinquième réunion de la Commission, CNL(06)11 (annexe 12). Il a indiqué que la Commission avait mis à jour l’inventaire des recherches portant sur la mortalité du saumon en mer. Le groupe, qu’elle avait chargé de fournir des recommandations scientifiques, avait par ailleurs offert un certain nombre de conseils. La Commission avait également élaboré et adopté une proposition « clé de l’avenir » visant à promouvoir le programme SALSEA et à en faciliter la réalisation. La Commission avait également étudié plusieurs questions d’ordre administratif et financier.

Le représentant des ONG a fait référence à la participation que les ONG pouvaient offrir au programme SALSEA. La Fédération du Saumon Atlantique s’était ainsi engagée, par le biais d’une Résolution, à apporter son soutien au programme SALSEA et à y offrir sa participation, par le biais de promotion et en inscrivant ses activités de recherche dans le cadre du programme. L’*Atlantic Salmon Trust* (le Trust du Saumon Atlantique), a-t-il fait remarquer, avait avalisé le programme SALSEA et y avait contribué des fonds. Ces fonds avaient, jusqu’à maintenant, été employés pour financer deux voyages de recherche dans l’Atlantique Nord visant à tester de nouveaux chaluts en collaboration avec le Scottish Executive et l’Institut de Recherche Marine, de Bergen, en Norvège. Il n’avait pas été possible d’avoir accès à un bateau de recherche en 2006. Le représentant des ONG a indiqué que le Trust désirait toutefois jouer un rôle, à part entière, dans le programme SALSEA et espérait que les Parties seraient en mesure de faciliter l’accès aux vaisseaux de recherche.

5.8 **Compte rendu du Comité scientifique permanent**

L’une des recommandations de l’Approche stratégique concernant les « Mesures à prendre à l’avenir par l’OCSAN » (CNL(05)49) consistait à inviter les Commissions de l’OCSAN à étudier si les mesures de réglementation des pêcheries pouvaient être adoptées pour deux, voire plusieurs années, et si la demande de recommandations scientifiques adressée au CIEM pouvait également n’avoir lieu que tous les deux ans ou sur une base pluriannuelle. Le Conseil avait demandé au Comité scientifique permanent de rédiger un avant-projet présentant les options qui s’offraient en ce qui concernait l’amendement de la demande de recommandations scientifiques (dans sa forme et son fonds), présupposant un accord de mesures pluriannuelles. Le Président du Comité scientifique permanent a présenté cet avant-projet, CNL(06)12 (annexe 13).

Le Président du Comité scientifique permanent a présenté une demande provisoire de recommandations scientifiques au CIEM. Fort de l’avis de ce dernier, le Conseil a adopté une demande de recommandations scientifiques adressée au CIEM, CNL(06)13 (annexe 14). Les Parties ont noté que la priorité du CIEM était d’établir le cadre des indicateurs et de fournir les recommandations de captures. Toutefois, si l’on pouvait également faire progresser la question 1.4 de la demande de recommandations, ceci serait apprécié.
6. Décisions à prendre à l’avenir par l’OCSAN

6.1 Séance spéciale : Etat d’avancement de la stratégie à appliquer dans le cadre des « décisions à prendre à l’avenir par l’OCSAN »

(a) Présentation générale des progrès relatifs aux décisions prises à Vichy

La Vingt-deuxième Réunion annuelle du Conseil avait vu l’adoption d’une Approche stratégique concernant les « Décisions à prendre à l’avenir par l’OCSAN » (CNL(05)49). Le Conseil avait souhaité une exécution rapide des recommandations suggérées par le Groupe de travail chargé de la question des « Décisions à prendre à l’avenir par l’OCSAN », mais avait, en fin de compte, reconnu que certaines recommandations nécessitaient une étude plus approfondie même si d’autres pouvaient être acceptées et exécutées immédiatement. Le Secrétaire a présenté le document CNL(06)14 qui résumait les progrès accomplis quant aux décisions identifiées par le Conseil comme pouvant être mises en application immédiate. Le Conseil a accueilli favorablement les progrès réalisés depuis la dernière Réunion annuelle. Un document qui esquissait les options d’une coopération accrue avec d’autres organisations internationales sur des questions d’intérêt mutuel a également été présenté, CNL(06)15.

(b) Compte rendu de la Task Force “Décisions à prendre à l’avenir par l’OCSAN”

Le Conseil avait admis que les décisions concernant les deux thèmes centraux de la stratégie « Décisions à prendre à l’avenir par l’OCSAN », à savoir d’une part la mise en application des accords de l’OCSAN, les questions d’engagement et de responsabilité et d’autre part la transparence et l’inclusion, nécessiteraient un examen supplémentaire avant d’être exécutés. Il avait, par conséquent, établi une Task Force, sous la présidence de M. Gudmundur Helgason (Islande), ayant pour mission d’affiner les recommandations concernant ces deux aspects de la Stratégie. La réunion de cette Task Force, avait eu lieu à Cangas de Onis, en Espagne, du 31 janvier au 3 février 2006. Le Président en a soumis le rapport, CNL(06)16 (annexe 15).

Le représentant des ONG a indiqué qu’elles accueillaient très favorablement le processus des « Décisions à prendre à l’avenir par l’OCSAN ». Elles étaient toutefois déçues par la lenteur à établir un groupe de Relations Publiques. Les ONG soutenaient pleinement cette initiative et étaient désireuses d’y apporter leur participation. Le représentant des ONG a fait remarquer qu’il s’avérerait peut être un peu moins important d’organiser des réunions consultatives entre parties intéressées, ce qui ne voulait pas dire qu’il ne serait toutefois pas utile de se réunir de temps en temps. Il a indiqué que les ONG appuyaient les recommandations présentées dans le rapport de la Task Force à propos de la mise en application des accords de l’OCSAN.

6.2 Décisions du Conseil

Fort des informations offertes dans les documents CNL(06)14, CNL(06)15 et CNL(06)16, le Conseil a décidé :
(1) d’adopter les ‘Directives concernant la Préparation des Programmes de mise en application et les méthodes de compte rendu sur les progrès réalisés’ telles qu’elles figuraient à l’annexe 3 du rapport de la Task Force, CNL(06)16 ;

(2) de former un Comité temporaire de révision et d’élaborer une proposition de programme d’activités pour l’année à venir, CNL(06)39 (annexe 16) ;

(3) d’adopter les recommandations de la Task Force en ce qui concernait la participation des ONG aux réunions de l’OCSAN, telles qu’elles figuraient à l’annexe 4 du CNL(06)16. Le Secrétaire a ainsi été prié d’amender les Conditions régissant la présence des Observateurs aux réunions de l’OCSAN ;

(4) d’organiser d’autres réunions consultatives avec les autres parties intéressées en 2009. Une décision finale sur ce sujet ne sera toutefois prise qu’à la lumière des conseils reçus du Groupe de Relations Publique (voir paragraphe 6, ci-dessous) ;

(5) de soutenir l’approche visant à améliorer la coopération avec les autres organismes intergouvernementaux, telle qu’elle est brièvement décrite dans le document CNL(06)15 ;

(6) d’établir un Groupe de Relations Publiques, dont le mandat serait de conseiller sur l’exécution des questions de relations publiques, telles qu’elles avaient été définies dans le processus des « Décisions à prendre à l’avenir ». Le Secrétaire a été prié de présider ce groupe au sein duquel M. Steinar Hermansen (Norvège) et lui-même représenteraient les experts de l’OCSAN. Le groupe comprendrait également deux spécialistes de relations publiques sélectionnés par les Parties (un provenant de l’U.E. et l’autre des Etats-Unis), un représentant du Danemark (pour les Iles Féroé et le Groenland) et deux représentants des ONG accréditées de l’OCSAN. Une fois les premières démarches pour créer ce groupe effectuées, des consultations auraient lieu avec les Chefs de délégation. Le document CNL(06)36 (annexe 17) contient le mandat du groupe.

Le représentant des ONG a indiqué que les ONG envisageaient d’aborder le processus de révision en demandant à une ONG, sélectionnée comme responsable, de coordonner les réponses des différentes ONG nationales et de les intégrer au programme de mise en application de la Partie appropriée. Il était d’avis que les représentants, choisis parmi les Parties de l’OCSAN comme membres du Comité temporaire de révision, effectueraient une excellente révision.

7. Conservation, restauration, mise en valeur et gestion rationnelle des stocks de saumons dans le cadre de l’approche préventive

7.1 Mesures prises au titre des articles 14 et 15 de la Convention

Le Secrétaire a présenté un compte rendu sur les renvois effectués au terme des articles 14 et 15 de la Convention, CNL(06)17 (annexe 18). L’Union européenne avait effectué un renvoi d’informations supplémentaire, CNL(06)27 (annexe 19).
7.2 Séance spéciale : Compte rendus des Parties ou juridictions appropriées sur les la progression de la mise en application des accords de l'OCSAN


Le Président a remercié les participants de leurs présentations très détaillées. Ces présentations représentaient plusieurs formats possibles de programme de mise en application, dont on pourrait tirer parti. Il a fait remarquer qu’il faudrait, dans les temps à venir, relever maints défis. En premier lieu, il a noté que la participation des ONG était essentielle. Il les invitait par conséquent à trouver une façon de contribuer à la formulation des programmes de mise en application. Il leur suggérait de tirer parti de leurs propres expériences faites au cours d’initiatives réalisées dans le cadre des bassins hydrographiques et des lignes de partage des eaux. En second lieu, certaines questions intéressant plusieurs secteurs pourraient s’avérer problématiques, surtout dans les domaines tels que la qualité de l’eau, la sylviculture, l’énergie hydraulique, etc. Le Président a ainsi proposé de compiler un livret ou pamphlet soulignant combien il importait de faire intervenir une multiplicité de secteurs à la définition des initiatives de gestion du saumon et encourageant d’autres secteurs à soutenir les mesures programmées des Parties. On pourrait également utiliser ce type de livret pour faire valoir ces questions auprès d’autres organisations et agences œuvrant chargées de la gestion de secteurs connexes. Troisièmement, il était intéressant de noter que, malgré le nombre des présentations faites, il existait encore des pays qui n’avaient toujours pas formulé de programme de mise en application. Le Président a indiqué que dans l’une des présentations, il avait été avancé qu’il demeurait impossible de gérer un bassin hydrographique à partir de 81 affluents. Il se demandait pourquoi. Outre les plans quinquennaux, le Président a suggéré que l’on devrait peut être également envisager une vision sur 10 ou même 20 années. Il estimait que le processus des « Décisions à prendre à l’avenir » encourageait l’OCSAN et ses Parties à penser avec originalité et à entreprendre des initiatives nouvelles.
Le représentant des ONG a remercié les Parties de leur préparation de plans de mise en application des accords de l’OCSAN ; les ONG reconnaissaient ce que ceci représentait en tant qu’effort. Toutefois, il a indiqué que les projets présentés au cours de la Séance spéciale ressemblaient plus à des méthodes de gestion qu’à des plans de mise en application. Il a fait remarquer que, dans le cadre de l’exécution des accords de l’OCSAN, le texte du rapport du Groupe de travail chargé des « Décisions à prendre à l’avenir par l’OCSAN » mentionnait des plans d’action accompagnés d’engagements et de programmation dans le temps. Les ONG reconnaissaient qu’il ne s’agissait là que de la première étape du processus ; cependant, elles souhaitaient voir les choses progresser lorsque les plans seront terminés. En outre, elles aimaient apporter les suggestions suivantes :

- les contributions émanant de groupes privés, volontaires et des ONG tels que les trusts de rivières et les associations de pêche devraient être incluses. Ces groupes pourraient également contribuer une aide en terme de main d’œuvre ou de fonds. La meilleure façon d’inclure ces contributions était de garantir que ces groupes soient tous consultés lors de la préparation des plans ;

- au cas où un manque de ressources ou des restrictions d’ordre politique limitaient une action particulière, ceci devrait être noté de façon à ce que les ONG puissent aider les Parties à faire pression sur les gouvernements.

En conclusion, le représentant des ONG a déclaré que les ONG se réjouissaient d’avance à la perspective de recevoir les plans complets des Parties et d’œuvrer à l’amélioration des performances de l’OCSAN.

7.3 **Aquaculture, introductions et transferts, et transgéniques**

(a) **Amendements apportés à la Résolution de Williamsburg**

Lors de sa Réunion annuelle de 2003, le Conseil avait adopté la Résolution prise par les Parties, dans le cadre de la Convention pour la conservation du saumon de l’Atlantique nord, afin de minimiser les effets nuisibles de l’aquaculture, des introductions et transferts et des transgéniques sur les stocks de saumons sauvages, à savoir la Résolution de Williamsburg, CNL(03)57. En adoptant cette Résolution, le Conseil avait reconnu qu’il s’agissait d’« un document souple » qui pourrait subir des modifications au fur et à mesure que l’on avançait dans le temps. En 2004, le Conseil avait adopté une nouvelle définition du terme « transgénique » et avait par conséquent amendé les Orientations recommandant l’application de mesures concernant le saumon transgénique. De même, le Conseil avait adopté les Orientations sur le repeuplement des stocks de saumons atlantiques. En 2005, le Conseil avait convenu d’annexer, à la Résolution de Williamsburg, le Protocole d’accord adopté par le Canada et les Etats-Unis concernant les introductions et transferts.

A la suite de l’adoption de la Résolution de Williamsburg, le secteur salmonicole avait exprimé son inquiétude quant au non respect de la marche à suivre pour le développement de ladite Résolution. Des commentaires émis par l’Association Internationale des Eleveurs de Saumons (AIES) sur la Résolution avaient été présentés lors de la Vingt-deuxième réunion annuelle, CNL(05)30. Le secteur salmonicole d’Écosse et de la Fédération de Russie, n’étant pas membres de l’AIES, n’avaient offert aucune suggestion. Le Conseil avait prié le Secrétaire de rédiger, en

Le représentant des ONG a indiqué que la Résolution de Williamsburg représentait un accord « vedette », essentiel à la conservation du saumon sauvage. L’ajout du terme significant (important) préoccupait toutefois les ONG car l’on pouvait interpréter ce terme de différentes façons. Il s’est reporté à la question de transparence et de dialogue. Si seulement, a-t-il indiqué, les ONG avaient pu participer à la réunion du Groupe de liaison, elles auraient pu faire part de leur inquiétude à propos de ce mot plus tôt. Les Parties ont reconnu que la signification du terme significant était ouverte à interprétation. A leur avis, le terme était toutefois acceptable, étant donné l’accent placé dans la Résolution sur la charge de la preuve et l’évaluation des risques. De plus il était essentiel de faire avancer, de pair avec le secteur salmonicole, l’établissement de mesures visant à réduire au maximum les effets de l’aquaculture.

Le représentant de la Norvège a indiqué qu’il était prêt à accepter les modifications de la Résolution de façon à ne pas ralentir le processus, mais qu’il n’aimait pas non plus l’emploi du mot significant. Le Plan de mise en application de la Norvège n’aura donc pas recours à ce terme. A son avis, lorsqu’un accord était convenu par l’OCSAN, il n’était pas bon d’en affaiblir les termes de façon à maintenir de bons rapports avec les autres parties intéressées. C’était là une question de principe.

Le Conseil a accepté ces modifications et a prié le Secrétariat de publier la Résolution revue et corrigée sous forme de brochure.

Le représentant des ONG a indiqué que les ONG pouvaient comprendre combien il importait de faire avancer la définition de mesures permettant de réduire au maximum les effets de l’aquaculture. Néanmoins, elles étaient d’avis que l’emploi du terme significant était une erreur, étant donné le manque de définition claire. A son avis, ceci communiqait au secteur salmonicole un message erroné.

(b) Liaison avec l’industrie salmonicole

Conformément à la décision prise par les Chefs de déléguations, une réunion qui regroupait les représentants de l’Association Internationale des Éleveurs de Saumons (AIES) et du Secrétariat de l’OCSAN a eu lieu à Bruxelles le 9 mai 2006. Le Secrétaire en a présenté le compte rendu CNL(06)19 (annexe 21). Le Conseil a approuvé la recommandation de ce rapport, à savoir d’organiser une réunion du Groupe complet de liaison. Cette réunion durerait un jour et demi, et serait organisée juste avant le Boston Seafood Show (Foire des crustacés de Boston) (qui aurait lieu du 11 au 13 mars 2007). Le Conseil a également accepté les propositions visant à donner suite aux réunions de Trondheim et de Bergen, et a prié le Secrétaire de se mettre en contact avec le Président of l’AIES afin de décider d’un ordre du jour pour la réunion du Groupe de liaison qui refléterait les différentes questions abordées dans le compte rendu.
Le représentant des ONG a indiqué que la campagne pour se faire admettre au Groupe de liaison avait été longue. En effet, les ONG n’avaient pu émettre d’opinions sur l’aquaculture qu’au cours des réunions de l’OCSAN alors qu’elles auraient dû les adresser au secteur. Il a indiqué que c’était aux ONG qu’il incombaient de nommer leur représentant. Par conséquent, elles déclineront l’invitation à se joindre à la réunion du Groupe de liaison. Les ONG ont cherché à savoir jusqu’à quel point l’AIES était représentative du secteur et ont proposé d’initier un nouveau dialogue avec le secteur salmonicole, présidé par une ONG. Cette démarche viserait à établir un dialogue avec l’Organisation des éleveurs écossais qui représentait 90% du secteur salmonicole écossais. Le Conseil a prié le Secrétaire et le Président du Groupe de liaison de se mettre en contact avec le Président des ONG pour définir cette proposition plus précisément.

Le Conseil a noté que l’AIES avait proposé qu’un représentant du WWF (États-Unis) soit admis en tant que représentant des ONG aux prochaines réunions du Groupe de liaison. Le Conseil a également pris acte du fait que les représentants de l’OCSAN avaient suggéré, au cours de la réunion du 9 mai 2006, que même s’ils accueillaient favorablement ce changement d’attitude, il serait bon que le Président des ONG de l’OCSAN assume la représentation de ces organisations au sein du Groupe de liaison, conjointement avec un représentant du WWF (États-Unis). Le Conseil approuvait cette approche et a prié le Secrétaire et le Président du Groupe de liaison de contacter l’AIES à ce sujet.

(c) Compte rendu de l’atelier de Trondheim, intitulé “Saumon sauvage et saumon d’élevage – un travail de coopération”

Le compte rendu de l’atelier du Groupe de liaison intitulé « Saumon sauvage et saumon d’élevage – un travail de coopération » a été mis à la disposition du Conseil. Le Conseil a accueilli favorablement ce compte rendu et a pris plusieurs initiatives donnant suite au progrès réalisé au cours de cet Atelier (voir paragraphe 7.3 (b), ci-dessus). Le Conseil a remercié le Comité directeur de l’Atelier (Dr Ken Whelen, Dr. Peter Hutchinson, M. James Ryan et M. Kjell Maroni) d’avoir organisé cette excellente réunion. Le Conseil a également félicité le Comité directeur de la qualité de rédaction du compte rendu.

(d) Compte rendu du Symposium OCSAN/CIEM de Bergen

Le Secrétaire a présenté un compte rendu provisoire du Symposium CIEM/OCSAN, intitulé « Interactions entre les stocks de saumons atlantiques sauvages et d’aquaculture et d’autres espèces de poissons diadromes : Science et Gestion, Défis et Solutions », CNL(06)22 (annexe 22). Ce document avait été rédigé par les Coorganisateurs (Dr Malcolm Windsor et Dr Lars Petter Hansen). Le représentant de la Norvège a déclaré que le symposium avait été utile dans la mesure où il avait servi de platforme aux futures initiatives de réduction optimale des effets nuisibles de l’aquaculture. Il a également fait remarquer que de nouvelles mesures, visant à réduire au maximum la possibilité d’échappement, avaient déjà vu le jour en Norvège. Le Conseil a félicité les Coorganisateurs pour le succès de cet important événement.
7.4 **Nouvelles opportunités ou opportunités naissantes pour, ou menaces contre, la conservation et la gestion du saumon**

Ce point a été inclus à l’ordre du jour de la Vingt-troisième Réunion annuelle conformément à l’adoption d’une Approche stratégique dans le cadre des « Décisions à prendre à l’avenir par l’OCSAN ». On avait ainsi demandé au CIEM de fournir les informations appropriées.

Le représentant de la Fédération de Russie a mentionné un programme continu d’étude des captures accidentelles de post-smolts de saumons, ayant lieu au cours des pêcheries pélagiques dans la mer de Norvège, CNL(06)32 (annexe 23). Ce programme avait débuté en 2002. Il se composait d’une étude sur les poissons pélagiques et d’un tri sélectif des captures effectuées par les bateaux de pêche commerciale au maquereau. Les conclusions de cette étude indiquaient que les captures accidentelles de post-smolts et de saumons matures étaient peu nombreuses. Ces résultats étaient inclus, dans leur intégralité, dans les recommandations du CIEM. Le représentant de la Fédération de Russie a indiqué que ce programme continuerait en 2006.

Le Président s’est reporté à deux points inquiétants qui étaient ressortis du symposium de Bergen, à savoir les dangers que le *G. salaris* et les interactions génétiques avec les saumons échappés d’élevage posaient aux stocks de saumons sauvages. Il a signalé qu’il importait de faire en sorte que l’opinion publique prenne de plus en plus conscience des dangers que représentait le *G. salaris* et de continuer à avancer, par l’intermédiaire du Groupe de liaison, sur la question des effets génétiques nuisibles créés par le poisson d’élevage.

7.5 **Rapport du Groupe de Travail chargé de la modélisation bioéconomique**

La représentante des États-Unis a indiqué, que lors de sa dernière réunion, le Conseil avait convenu qu’une réunion du Groupe de travail technique (GTTec) devrait avoir lieu afin d’étudier la mise au point d’une modélisation bioéconomique. Cette décision était cohérente avec la décision de l’Approche stratégique concernant les « Mesures à prendre à l’avenir par l’OCSAN », à savoir non seulement de continuer mais d’accroître, le cas échéant, les efforts réalisés pour intégrer les facteurs socio-économiques au travail de l’Organisation. Elle a déclaré qu’un économiste américain, Dr John Ward, dirigeait cette initiative et que les États-Unis s’étaient engagés à organiser une réunion du GTTec pour faire avancer le travail. Cependant, pour des raisons indépendantes de leur volonté (l’ouragan Katrina) il s’était avéré impossible pour le GTTec de se réunir avant la Vingt-troisième réunion annuelle du Conseil. L’intention demeurait, toutefois, d’organiser une réunion du Groupe au début de 2007, probablement au mois de mars 2007 pour correspondre avec une autre réunion de l’OCSAN. Il était dans l’intention de Dr Ward de diffuser en avance des informations supplémentaires afin de permettre aux participants de mieux se préparer à la réunion.

7.6 **Etat d’avancement de la base de données des rivières à saumons**

De 2004 à 2005, les États-Unis avaient conçu une base de données sur internet, à partir du format d’inventaire proposé dans le Plan d’actions de l’OCSAN (visant à appliquer l’approche préventive à la protection et la restauration de l’habitat du
saumon atlantique). Après avoir été testée, cette base de données avait été mise à la disposition des Parties de l’OCSAN pour qu’elles puissent y saisir leurs propres données. En 2004, le Conseil avait convenu que les Parties :

- se serviraient, chaque année, de la base de données étendue sur le net pour mettre la base de données initiale des rivières à saumons de l’OCSAN à jour, pour corriger toutes erreurs et inexactitudes et pour garantir que les renseignements spécifiques correspondent au nouveau format. Il a été établi que ce processus ne devrait pas prendre trop de temps et n’exigerait pas un très grand effort ;
- envisageraient l’utilisation de la base de données pour recueillir des informations générales sur l’habitat du saumon et sur les effets nuisibles à cet habitat ;
- saisiraient les données générales concernant la production de saumons juvéniles et adultes en fonction des données et des ressources disponibles. Ces données, facultatives, seraient néanmoins utiles à la base de données.

L’année dernière, le Conseil avait convenu de transférer la base de données sur le site de l’OCSAN. Un report sur l’évolution de la base de données, CNL(06)20 a été présenté. Le transfert de la base de données est maintenant achevé. La présentation des pages Web a été remaniée et les Parties peuvent désormais y saisir leurs propres données. Le Conseil a encouragé les Parties à entreprendre, dans la mesure où les ressources le permettent, les tâches identifiées ci-dessus.

7.7 Pêcherie de saumons à Saint-Pierre et Miquelon

Un compte rendu du programme d’échantillonnage effectué en 2005 à Saint-Pierre et Miquelon a été mis à la disposition du Conseil, CNL(06)23 (annexe 24). À ce document avaient été joints des renseignements concernant la réglementation qui encadrait la gestion de la pêcherie ainsi que les détails des permis octroyés et des captures effectuées. Dans ce compte rendu, les autorités françaises indiquaient qu’elles avaient continué à respecter l’engagement qu’elles avaient pris quant à la collecte de données scientifiques sur le saumon à Saint-Pierre et Miquelon et quant aux initiatives de gestion et de conservation. L’intention était d’instaurer une procédure visant à réduire le nombre de permis attribués et de ce fait à réduire progressivement les prélèvements effectués sur les stocks Nord-américains vulnérables. Le Conseil a noté que la Commission Nord-américaine avait, au cours de sa réunion, délibéré de cette question. Il a accueilli favorablement la continuité de la coopération de la part de la France (au titre de Saint-Pierre et Miquelon). Le Secrétaire a été prié d’exprimer auprès des autorités françaises combien la constance de leur coopération était appréciée et de continuer à les inviter à participer aux réunions futures de l’OCSAN.

Etant donné l’état des stocks Nord-américains – plusieurs se trouvaient désormais en dessous de leurs limites de conservation – et les recommandations du CCGP invitant à réduire l’exploitation des stocks mixtes, le représentant des ONG a déclaré que l’augmentation des prises à Saint-Pierre et Miquelon avait suscité une forte inquiétude auprès des ONG. Il a indiqué qu’il appréciait l’engagement de la France (au titre de Saint-Pierre et Miquelon) à réduire les captures et les a incité vivement à entreprendre ceci aussi rapidement que possible et conformément aux recommandations du CIEM et de l’OCSAN.
7.8 Effets nuisibles des pluies acides sur le saumon atlantique


Le représentant de la Norvège a fait référence à l’importante réduction des pluies acides en Europe grâce à l’efficacité d’accords internationaux. Ceci représentait un développement très positif, mais il restait néanmoins des situations graves à solutionner dans le sud de la Norvège. Les dépenses annuelles de la Norvège liées au chaulage de 22 rivières à saumons acidifiés sont d’environ 4 millions de livres sterling.

Le représentant des ONG a exprimé la déception de ces dernières quant à l’absence de progrès réalisé par le Canada et les États-Unis en ce qui concernait l’élaboration et l’application de stratégies d’aménagement pour les cours d’eau affectés par les pluies acides en Nouvelle Écosse et au Maine. Un projet de chaulage dirigé par des bénévoles de la Fédération du Saumon Atlantique (ASF/FSA) en Nouvelle Écosse ne pouvait être étendu à d’autres cours d’eau sans la direction des autorités. Il a fait remarquer que le chaulage en Norvège avait produit des résultats extraordinaires en ce qui concernait la restauration du saumon Atlantique.

7.9 Comptes rendus sur les activités des trois Commissions régionales

Les Présidents de chacune des trois Commissions régionales ont soumis au Conseil un compte rendu des activités de leur Commission respective.

8. Divers

8.1 Aucune autre question n’a été abordée.

9. Date et lieu de la prochaine réunion


10. **Compte rendu de la réunion**

10.1 Le Conseil a adopté le compte rendu de la réunion, CNL(06)46.

11. **Communiqué de presse**

11.1 Le Conseil a approuvé le communiqué de presse, CNL(06)47 (annexe 26).

Note : La liste intégrale des documents du Conseil figure à l’annexe 27.
Welcoming Address made by Mr Pekka Pesonen, State Secretary
Finnish Ministry of Agriculture and Forestry

Mr President, Distinguished Delegates, Observers, Members of the Secretariat, Ladies and Gentlemen:

We in Finland are proud and pleased to host this meeting on behalf of the European Union. I have the great pleasure to welcome you, on behalf of the Finnish Ministry of Agriculture and Forestry, to the Twenty-Third Annual Meeting of the North Atlantic Salmon Conservation Organization, NASCO, in Finnish Lapland.

In recent years the NASCO meetings have always been held in locations that are of special importance for salmon. When we talk about the salmon and its breeding areas here in Lapland, the first thing that enters people’s minds is the River Tenojoki, or the Tana River, which holds a quite unique position as a breeding ground for salmon. It is also a particularly significant watercourse in terms of the diversity of the salmon population. The River Tenojoki is about 100 kilometres away from where we are right now.

The venue for our meeting, Saariselkä skiing and hiking resort, is by no means a remote place in terms of the Atlantic salmon. The origin of a very important watercourse, that of the River Tuulomajoki, lies only two hundred metres from the hotel. The river flows through Russia to the Arctic Ocean, and its catchment area is even larger than that of the River Tenojoki. The two power plants in the river prevent the production of young salmon and migratory trout in almost 80 per cent of the potential breeding area. Recently, however, the Finnish and Russian authorities, researchers and representatives of the relevant municipalities have started to examine the possibilities to launch a joint project, with the aim of reviving the salmon and trout populations in the river.

For the people living in the Tenojoki river valley, salmon fishing used to be a highly significant livelihood, and even today its role is still important. Now, the respect for the traditional fishing rights of the original river valley population is shown in that the traditional forms of fishing by means of dams, nets and drift nets are, to a certain extent, allowed in the region. Besides being a breeding ground for salmon and a source of livelihood for the people, the River Tenojoki has also been important as a route for transport.

Fishing in the River Tenojoki is regulated by the Agreement between Norway and Finland regarding fishing regulations for the fishing area of the Tana River. The current agreement and fishing regulations date from 1989. Fishing tourism is regulated almost on an annual basis by joint decisions of local authorities, where small adjustments are made to the fishing regulations according to the state of the fish populations.

One of the largest lakes in Finland, Lake Inarijärvi, lies about 40 kilometres north from here. It is being regulated for power production, but the recent achievements in the management of fish populations have been very promising. The lake is quite a labyrinth and extremely barren. At the moment it is still partly covered with ice.

NASCO has been taking very good care of the preservation and revival of the wild salmon populations. The operations of the Organization started from the regulation of salmon fishing, but now they cover practically the whole life-cycle of salmon. One new element
introduced in recent years is the socio-economic role of salmon, which is many times the value of the meat, in some regions even many tens of times the value of the fish itself.

In full compliance with the precautionary principle, NASCO has prepared a quite comprehensive set of recommendations for the preservation and revival of the Atlantic salmon. Now the focus is shifting to the implementation of measures based on these recommendations and monitoring and reporting of the experiences gained from this work. Another aim is to examine feasible means for committing all the relevant stakeholders to take action for the benefit of wild salmon. I am sure that we all agree on the high importance of these issues to be addressed here in Saariselkä.

The much feared salmon parasite, *Gyrodactylus salaris*, occurs in Finnish rivers which discharge into the Baltic Sea. Here in Saariselkä we are in the watershed region: because the waters flowing to the north, to the Arctic Ocean or the White Sea, are free from this highly destructive parasite, no live fish or gametes of fish may be transported from the south to the northern regions without permission from the authorities. Finland has taken the threat very seriously, and in recent years special measures have been taken in northern Finland to protect the salmon populations from the parasite.

I hope, and trust, that you will enjoy your stay here in the northern nature and the “nightless night” of the summer, as we call it, despite the hard work that lies ahead. The local music presented is typical to the aboriginal Sami people. I hope it will help you to get into the real Lapland mood, before focusing on the official programme on our agenda. To conclude, I wish you, once more, most welcome to the Finnish Lapland. I wish the best success for the meeting and for the NASCO in its important and highly demanding work. Enjoy Lapland - before it is taken over by the mosquitoes.

Thank you, Mr President.
ANNEX 2

Opening Statement made by the President of NASCO

Mr State Secretary, Distinguished Guests, Ladies and Gentlemen:

A cháirde uilligh, fáilte roibh go leir chuig an tAontaigh Thuaidh um Chaomhnu an Bhraoin. Ladies and gentlemen, welcome to NASCO’s Twenty-Third Annual Meeting here in this beautiful wilderness area of Saariselkä. Since we are in the land of the Sámi people and their treasured Luossa or salmon, I should say a very warm Bueres Buachtain, or welcome, and of course, welcome also to our Finnish hosts, Tervetuulaw.

This is the second time NASCO has met in Finland but on this occasion we are, as is always our ambition in organising these meetings, closer to the salmon. It is particularly symbolic that we should meet in this beautiful area, for depending on the lie of the land the streams in this area which flow to the east feed some of the great Russian rivers such as the Tuloma, while those flowing west are tributaries of the Tenojoki or Tana river. The Tenojoki is one of the truly great Atlantic salmon rivers of the world, which some of us will visit at the end of this week. If you get the opportunity I would encourage you to visit the National Park, which lies on the outskirts of the village, to enjoy the pristine nature of its stunning, crystal clear streams. Such streams should inspire us and remind us of why we have gathered here in northern Finland and of the great task ahead in restoring less fortunate streams in other parts of the world to their former pristine and productive state.

For NASCO, the past year has been particularly busy and challenging, but our small but highly efficient Secretariat have done an outstanding job in ensuring that all of the objectives set for them by the Parties were not alone met but, in many cases, exceeded. We thank them most sincerely for their hard work and dedication.

It was my great privilege during the past year to visit the mighty River Ponoi on the Kola peninsula and to see at first hand the impressive research work being carried out by Boris Prischepa’s team. What struck me most was that despite the appearance of a tough, inhospitable environment, these northern systems are, in fact, extremely delicate, depending as they do on short growing seasons and quite staggering ranges of extreme temperatures. There is no doubt that if subjected to the same man-made pressures as those affecting the rivers of Western Europe or southern Canada, they would have available to them far less natural biological buffering capacity and, if damaged, could take decades, if not hundreds of years, to recover; indeed a sobering thought.

I was also invited to attend a Directors’ meeting of the Atlantic Salmon Federation, in December, to brief them on the SALSEA programme and the need for a partnership approach in this vitally important initiative. I am delighted to report that the joint Boards of ASF US and Canada, earlier this year, passed a resolution of support for the SALSEA initiative. I look forward to working with ASF and our other NGO colleagues and optimising the use of their undoubted skills and knowledge, on a partnership basis, to further the aims of this fundamentally important research initiative.

This Annual Meeting marks a major turning point for NASCO and may well prove to be a watershed in two critical areas – SALSEA and the implementation of the Next Steps for NASCO process. In the case of SALSEA it is my firm belief that we have now reached a
point where we require definite timelines and a firm commitment to seeking innovative ways of resourcing the project. SALSEA is a term project requiring two years of intensive marine activities. To succeed we require administrations east and west of the Atlantic to prioritise marine salmon research for a set two-year period and to provide direct support in the form of research vessel time; we require the NGOs to generously support, through their skills and experience, the planning and implementation of a fund-raising programme and, finally, we call on our ever-willing NASCO scientists to focus all of their considerable brain power and initiative in a focused drive to determine the major migration paths of salmon in the North Atlantic.

This year we also hope to implement, for the first time, the revised format for our Annual Meetings as agreed through the Next Steps process. We are hopeful that this will result in a more inclusive organization, which will take account of the concerns of both Parties and NGOs, to ensure the implementation of agreements and the conservation of our shared wild Atlantic salmon resource.

Ladies and gentlemen, we have before us three days of intensive discussion and debate but, most importantly, we have had presented to each of us, individually, a unique opportunity to change, over the coming five or six years, the very course of salmon research and management. Inspired by our surroundings and our shared vision, let us grasp that opportunity and take the giant leap which future generations demand of us.

I would now like to call upon the United States of America to make an Opening Statement.
Opening Statements made by the Parties
Opening Statement made by Canada

Mr President, Distinguished Delegates, Observers, Ladies and Gentlemen:

I would like to start by thanking the Finnish authorities for their efforts in bringing the NASCO delegations to the tip of Finland. Wilderness here is not unlike many areas of northern Canada and so some of us are familiar with it. I particularly appreciate the fact that we are in the homeland of Santa Claus and we may actually have to resort to his wisdom on some of the issues we have to deal with.

As many of you are aware, the Atlantic salmon in Canada has experienced a 20-year decline in abundance. Despite major management measures such of the closure of all commercial salmon fisheries in Canada in the 1990s, the decline in abundance has continued. Weather has also not been on the side of salmon. Unusual heavy rain events caused flooding in Quebec salmon rivers during sensitive spawning and over-wintering periods. However, not all the news is bad. The abundance of Labrador and Newfoundland one-sea-winter fish this past year was high. Habitat restoration projects continued to be carried out in 2005. One example is the dam removal projects in the Maritime Provinces which resulted in the recovery of approximately 400 square kilometers of salmon habitat. While actions such as this are helpful, clearly other factors continue to impact Atlantic salmon abundance.

Mr President, as you well know, although our domestic policies are important and useful, one of the major challenges facing salmon is sea survival. You have personally been very active in promoting SALSEA and in stressing the need to move forward. Recently the Atlantic Salmon Federation agreed to a resolution for support and participation in the SALSEA programme as fully as possible, and particularly in taking advocacy actions and coordinating their marine research within the scope of SALSEA. This is a commendable move on their part, one that indicates their strong commitment to salmon.

This week we will discuss and agree on steps NASCO could take in the near future to raise SALSEA’s profile further and encourage activities that can take place now.

I have proposed before stronger cooperation between NASCO and the North Pacific Anadromous Fish Commission, and as President of NPAFC now I would like to encourage a meeting of scientists to discuss common salmon issues and prepare for the Joint Symposium that our Executive Secretary proposed in Korea last fall.

This year Canada will be embarking on some significant initiatives to address Atlantic salmon conservation concerns. We are about to finalize the development of a broad policy framework for the conservation of wild Atlantic salmon. The Wild Atlantic Salmon Conservation Policy will provide a modernized approach on major elements of salmon management. This will guide efforts to address the challenges in protecting the genetic diversity of Atlantic salmon and their habitats. The policy will also encompass elements of stewardship. This will involve governments of various levels, aboriginals and stakeholders interested in conservation of Atlantic salmon in co-operative efforts to undertake a range of habitat enhancement, monitoring and management initiatives. The Wild Atlantic Salmon Conservation Policy will parallel that of the wild Pacific Salmon Conservation Policy initiated in 2005.

Another positive development will involve the establishment of a $30 million federal government contribution for an Atlantic Salmon Endowment Fund. When established, the
income earned on the funds will be used to fund projects to promote healthy and sustainable wild Atlantic salmon. The fund will be managed and administered by a group at ‘arms length’ from government. The group will provide funding to a wide range of interests ranging from aboriginal, community, recreational and private companies.

Recently, Federal and Provincial Ministers of Fisheries and Aquaculture agreed that a comprehensive Aquaculture Framework Agreement must be developed and implemented nationally to promote and ensure sustainable aquaculture in Canada. The Framework Agreement will incorporate, among other things, undertakings by governments to ensure environmentally safe practices are followed by the aquaculture industry. The Framework Agreement will help address the potential impact of the aquaculture industry on wild Atlantic salmon stocks.

These policies will be incorporated in Canada’s implementation plan when approved by the Minister.

Finally, Mr President, this week we will set in motion a new way of doing business in NASCO that will involve inclusivity and transparency. There are not many, if any, other regional fisheries management organizations that push the limits of openness and involvement of NGOs and ongoing internal review such as we are embarking on. It is an important step in a new direction that will hopefully help in our collective efforts to stop the decline in wild Atlantic salmon. We must take the necessary time for thoughtful and comprehensive discussions and debate on our Next Steps process.

This is an exciting time for NASCO. The Canadian delegation is looking forward to a productive week.
Opening Statement made by Denmark (in respect of the Faroe Islands and Greenland)

State Secretary, Mr President, Distinguished Delegates and Observers:

The Faroe Islands and Greenland are very pleased to participate in the Twenty-Third Annual Meeting of NASCO, which has brought us to the beautiful location of Saariselkä in Finland.

The commercial salmon fishery at sea was once very important to Greenland and the Faroe Islands. Today wild salmon in the Faroe Islands only provides the basis for limited recreational fishing. In an effort to help rebuild the salmon stocks, the Faroes have not fished for salmon at sea for many years. But we continue to claim our rightful share of the stock and our sovereign right to harvest such a share in a responsible manner.

In Greenland, since 2002 the fishery has been restricted to the amount used for domestic subsistence consumption. Greenland still, however, retains its right to fix a quota. Year by year the ICES reports have become increasingly pessimistic as to the status of the salmon stocks. The Faroe Islands and Greenland have, therefore, refrained from commercial exploitation of the salmon stocks in our fisheries zones. Likewise we expect the homewater Parties to adhere to the advice from ICES. The report from ICES gives the proportion of the catch taken in coastal, estuarine, and riverine fisheries over the last 10 years. These figures reveal that so-called ‘interceptive fisheries’, for which both the Faroe Islands and Greenland have received so much blame ever since the inception of NASCO, are still conducted in other parts of the NASCO Convention Area. More than half of the salmon is caught in mixed-stock fisheries in coastal waters and estuarine areas. The Faroe Islands and Greenland are keeping an eye on what is going on elsewhere in the NASCO area as we evaluate the fairness in refraining from fishing within our own fisheries jurisdiction. We would still like to resume fishing for salmon at sea in Faroese and Greenlandic waters. We urge the river states to improve the conditions in their home rivers, thereby increasing the escapement of salmon smolts to previous high levels, thereby creating harvestable surpluses at sea, and enabling the Faroe Islands and Greenland to harvest our fair share of the salmon resources which feed in our waters in the Northeast and Northwest Atlantic.

The work on the future of NASCO has, in recent years, been in focus under the heading “Next Steps”. The Faroe Islands and Greenland have actively participated in this work. We share the view that NASCO should review and refine its own procedures in order to ensure their consistency with the objectives of the Convention – and to ensure that NASCO maintain its good reputation as an effective regional fisheries organization.

Greenland and the Faroe Islands continue to place great importance in a more direct inclusion of homewater fisheries in the NASCO Convention. In this regard I would like to emphasize that Contracting Parties, through the Implementation Plans, should be required to report on management measures for salmon fisheries in their homewaters. This information is needed in order to assess how Contracting Parties accomplish their obligations in respect of the Convention, and to assess fairness and balance in management measures in salmon fisheries in the North Atlantic.

The Faroe Islands and Greenland look forward to working with the other Contracting Parties during the Twenty-Third Annual Meeting of NASCO.

Thank you.
Opening Statement made by the European Union

Mr State Secretary Pesonen, Mr President, Distinguished Delegates and Observers, Ladies and Gentlemen:

Firstly, on behalf of the European Union, I would like to welcome you to this fascinating region of Finland. At the same time, I would like to thank the Government of Finland for undertaking the onerous task of organising this Twenty-Third Annual Meeting of NASCO, here in Saariselkä. It must be one of the more northerly venues in which NASCO has met, and so we should have no problem in having sufficient light to work under!!

It is now more than twenty years since NASCO saw the light of day, and since then, it has gone through many changes and challenges so that it can now be considered as being a mature regional fisheries organization. Even though it can be considered as being mature, it has not shown that it is slowing with age.

Indeed, the recent exercise that has been undertaken in the ‘Next Steps’ process has shown that NASCO is ready and willing to review and, if necessary, reform the way that it operates. This is in line with the Ministerial Declaration of the St John’s Conference on the Governance of the High Seas Fisheries of May last year, which called on Parties to regional fisheries management organizations to review and strengthen these organizations. I think it would only be fair to say that, in NASCO, this exercise is under way, and will continue, as has been outlined in the NASCO brochure on “A Vision for the Future”.

Here, I would like to note the proposed changes to the participation of the NGOs in NASCO. We, the European Union, welcome such open participation, but it has to be conducted in a correct and orderly way in order to avoid confusion. Such confusion would only result in the opposite to what we are trying to achieve, better transparency and inclusiveness. NASCO should never shirk from being open and transparent; to do otherwise would only lead to doubts, criticism and questions from our detractors. Therefore, it is up to you, Mr President, and the respective Chairs of the Commissions, to set out how this can be undertaken.

Since the beginning of NASCO, there have been many changes in the world of the wild Atlantic salmon. We have come from a situation where catches of some 7,000 tonnes were made throughout the migratory range of North Atlantic salmon in 1983, when NASCO came into being, to today’s situation where there is a reported catch of only about 2,000 tonnes and where there are little or no fisheries in the waters of some of the Parties. Some Parties have taken significant and painful steps to address this in the past, and this is well recognised. Others, including the European Union, are currently taking further steps to meet the demands that the scientific community and others are calling on us to take to address the current poor stock situation of the wild salmon.

Last year the EU delegate announced that the European Commission was commissioning a report of the mixed stock fisheries of salmon in the North Atlantic. This report has now been concluded and I have with me a copy of this for distribution. The report concludes that no action at the Community level is required, and that it is appropriate for the Member States involved in the mixed stock fishery to take the necessary management action. This is currently happening in some Member States where the issue of the coastal fisheries is being directly addressed, but not without difficulty.
So, in short we have had a massive decline in the stocks over a period of 20 years. How should and do we address this? Sacrifices have been made in the distant and homewater fisheries without avail. So where have the stocks gone? I mentioned earlier that we are being called upon to follow what we are being advised by the scientific community.

NASCO, through the International Atlantic Salmon Research Board, has developed the SALSEA programme to look into mortality at sea. As we know, this is a very ambitious and costly project to fund. We have seen that there are limited resources available to fund this from Parties’ administrations and research bodies. We in the EU are exploring the opportunity to provide SALSEA with funds from the forthcoming 7th Framework Research Programme. We hope that other Parties would do likewise in their respective Administrations. But it is not only the Parties that can make a contribution to this exercise, perhaps not fully in the same sense as the Parties, but, a valuable contribution nonetheless. Here, I am talking about the stakeholders.

I would like to challenge them, as they have challenged NASCO in the past, to take action to address the poor stock abundance. The Parties have done, and continue to do, their part, and there is now an opportunity for the stakeholders to do their bit. They can do so by actively assisting the Research Board in fund-raising activities or identifying possible donors, especially in light of the accrued wealth of experience that they have accumulated in their own fund-raising activities.

Regarding the current management of the stocks, we have all seen the advice coming from ICES, and that we should consider the implementation of multi-annual measures. This advice confirms what NASCO has been looking at in the context of the “Next Steps” process. Therefore, we would expect to see the adoption of multi-annual measures that continue the past annual measures that have been adopted in recent years. We understand and expect that this may create difficulties for some, but consideration of the scientific advice is clear and leads to the conclusion that there is little likelihood of a stock recovery in the near future. Therefore, it is only logical that a more long-term approach to conservation management should be considered which would enable further research and data gathering to be carried out to gain a better understanding on how to address this dire situation.

Mr President, we look forward to working under your strong leadership and guidance, reflecting both common sense and scientific logic in the proceedings of NASCO. We see that this is a necessary requirement during this meeting as we have reached a crossroads in the development of NASCO.

Finally, I cannot forget the Executive Secretary and his team, and would like to thank you, Malcolm, and your colleagues, for the long hours of preparation that you have put in to ensure that the meeting will run as efficiently and effectively as possible. I’m sure that there will be a few more extra hours to be put in before the week is out. Thank you.

With these few thoughts, I would like to wish NASCO every success in its Twenty-Third Annual Meeting, and I would also underline the willingness of the European Union to work with all the other Parties around the table to further the work of NASCO towards the ultimate objective of a sustainable fishery of the wild North Atlantic salmon.
Mr President, Distinguished Delegates, Ladies and Gentlemen:

The beautiful surroundings of the Sami people in Finnish Lapland provide the most appropriate venue for this Annual Meeting. This is supposedly the northernmost Annual Meeting of NASCO with the Ilulissat meeting probably coming a close second. These two places at a similar latitude are, however, strikingly different; Lapland being the temperate nursery area for Tana River salmon and Disco Bay fostering the salmon to adulthood among icebergs in a cool marine environment, demonstrating the adaptability and migratory skills of this splendid creature.

As usual, we have a full agenda ahead of us which the Secretariat of NASCO has planned with customary efficiency. Already today we will have our Special Session on the implementation plans. Iceland has constructed a preliminary implementation plan for the next five years following the guidelines set up by the special Task Force. Although this turned out to be a highly useful exercise the preliminary nature of the document must be stressed and it should basically be looked at as a draft.

The “Next Steps” process of NASCO has dominated our agenda during the last two years. An integral part of that process was the request of our NGOs to have the meeting processes more transparent and for a greater effort by the Parties to follow through on resolutions and guidelines passed by NASCO’s Council. Further to the Strategic Approach adopted last year, the Task Force meeting in January/February of this year laid down the ground rules for implementation plans and the processing of such plans within NASCO. The resulting guidelines should have facilitated the creation of preliminary implementation plans by most NASCO Parties and jurisdictions.

It must thus be said that NASCO’s Next Steps process is well under way and hopefully in line with the expectations of our NGOs. Rome, however, was not built in a day and the problems facing the Atlantic salmon, as well as possible remedies, are highly variable between jurisdictions, which means that the implementation plans will be highly variable in scope and content. A certain degree of patience and perseverance must thus be exercised while the mighty river of implementation carves out its canyon.

Looking at the Icelandic salmon situation we are happy to report that the angling catch in 2005 exceeded 55 thousand salmon, of which about 17 % were released again into the river. This is the highest salmon catch since 1978, which was a record year. The angling catch, however, was largely composed of grilse, and 2SW salmon were poorly represented, especially in northern areas. This decline of the 2SW component falls in line with the development observed during the last 15 years, which does not seem to improve. In the light of a great grilse abundance in 2005 an increase in larger salmon should occur during this year’s salmon season, if conditions are normal.

In spite of good salmon fisheries in some areas it seems that most stocks around the North Atlantic are still in a precarious state and great care must be exercised, especially in mixed stock fisheries. We thus urge our friends and colleagues in NASCO to heed the advice of ICES and reduce exploitation rates in all salmon fisheries, which is in line with our acceptance of the Precautionary Approach.
Turning to salmon aquaculture issues, there has been a decrease in the number of sea-pens in eastern Iceland and it is expected that farmed salmon production will fall drastically within a few years. Considering that these sea-pens are all located far from any salmon rivers it is anticipated that fish farm escapees of Icelandic origin will be an extremely rare occurrence in Icelandic salmon rivers, which has indeed been the case. If such fish are observed, however, it cannot be ruled out that they originate from a foreign operation, which shows the international nature of this problem.

By way of closing, Mr President, I want to thank you and the NASCO Secretariat for the efficient preparation of this meeting and thank our Finnish hosts for their generous hospitality.
Opening Statement made by Norway

Mr President, State Secretary, Mr President, Distinguished Delegates, Observers, Ladies and Gentlemen:

Finland and Norway are close and very good neighbours with a long history of cooperation on salmon issues. In particular I would like to emphasize our common interest in the magnificent river Tana, which is the most productive salmon river in the North Atlantic.

So it is obviously a great pleasure for Norway to participate at this Twenty-Third Annual Meeting of NASCO here in Saariselkä.

As you all know, NASCO agreed on adopting the Precautionary Approach to salmon management in 1998, and since then the Organization has done an excellent job in creating a common conceptual platform for such management.

Now, the next large step for us – as Parties – is to implement the Precautionary Approach. And NASCO will, of course, play an essential role as a forum for developing practical solutions and agreeing on common procedures and standards.

I would at this point like to focus on an issue that I believe is one of the most important on our agenda in the years to come.

Over the years NASCO has shown that it has both the ability and the skill to develop agreements and guidelines on a number of important salmon management issues. There might, however, still be room for improvements when it comes to implementing those instruments with sufficient strength.

Last year in Vichy we agreed that the core tool to make further progress in implementation should be the development of national implementation plans. The Task Force we appointed under the chairmanship of Mr Gudmundur Helgason has done an excellent job in drawing up a structure and format for such plans and I really look forward to our further work on this issue.

Finally, Mr State Secretary, I would like to thank you, as our host, and the Secretariat for excellent preparations for this meeting.

I wish us all a good and productive week.

Thank you.
Opening Statement made by the Russian Federation

Mr President, Distinguished Delegates, Observers, Ladies and Gentlemen:

It gives me great pleasure to be attending this, the Twenty-Third Annual Meeting of the North Atlantic Salmon Conservation Organization and represent the Government of the Russian Federation. This meeting is held in Finland, which borders Russia, with whom we have good long-standing neighbourly relations and common interests in rebuilding and conserving the Atlantic salmon stock in one of the largest river systems of the East Fennoscandia, the Tuloma river, which starts in Finland and runs into the sea in Russia. I cannot help underscoring in this respect that our joint effort in addressing the challenges we are confronted with to achieve our conservation goals for this river is certainly guided by NASCO’s policy and approaches, which it has been successfully promoting over more than 20 years. The foundation created by NASCO to date provides a good basis for us to make the Tuloma River salmon-rebuilding effort a success story. We are confident of achieving this together with Finland.

This confidence is inspired by not only the fruits of NASCO’s hard work over many years, but, particularly, by the progress achieved in the last year under the ‘Next Steps for NASCO’ process of developing the procedures and tools for improving commitment, accountability and implementation of NASCO agreements to further the application of the Precautionary Approach to the conservation, management and exploitation of Atlantic salmon, protection and restoration of this valuable resource and protection and restoration of its habitat. In this respect, we would like to specifically mention initial efforts already undertaken by the Parties in developing their Implementation Plans intended to address the overall objective of rational management of salmon stocks, their enhancement and preserving their diversity.

For Russia this is quite a challenging task, considering the state of the economy in our northern regions and the wide range of difficulties we are often confronted with, when implementing the Agreements and Resolutions adopted by NASCO. However, we are absolutely determined to tackle the problems, as we see positive developments as a result of actions already taken. We continue to contribute our efforts to studies of salmon mortality at sea and to build up and update our inventory of salmon rivers. I must mention that, because of increasing publicity of NASCO’s work in Russia today, including its Resolutions, the Murmansk Region Government, for instance, has taken a decision to develop and implement a targeted programme aimed at protecting and restoring the Atlantic salmon stocks in rivers of the Murmansk Region.

In conclusion, I wish to mention that our Twenty-Third Annual Meeting takes place in a country whose history over many centuries was closely related to the history of Russia; in a country which, at one point in time, was a part of Russia, and whose cultures of the First Nations – Saami in Finland and in Russia - have common roots. This, in many respects, makes the two countries very close to each other, particularly those people who live in their northern parts. Finland is referred to as a country of woodland and lakes. And here in the north, particularly fascinating is the time of midnight sun. It is no wonder that the Finnish writer Topelius said: “None of the painters is able to reproduce a striking clarity of a summer night in the north, when the light comes from everywhere, and, it seems, as if from every single object”. All northern nations are remarkable for their fabulous hospitality, of which we now see proof. I wish to express my gratitude to our hosts for offering us a wonderful place to meet.
Mr President, my delegation is looking forward to a very productive meeting and to working closely with you and all the Parties during this week.

Thank you.
Mr President, Distinguished Delegates, Observers, Ladies and Gentlemen:

The United States is pleased to be participating in this Annual Meeting of NASCO. I would like to thank you, Mr President, our hosts, and the NASCO Secretariat for the excellent preparations to facilitate our deliberations this week.

The scientific advice from ICES this year is clear and compelling. There is essentially no chance that the returns to the US in 2006 will be even 10% greater than returns observed from 1992-1996. Given the depressed and declining status of Atlantic salmon populations, it is critical that we reduce their exposure to mixed stock fisheries, continue and intensify our efforts at home for these fish and their habitat, and collaborate to improve our understanding of factors that are affecting salmon at sea. Given the clear message from ICES that it is highly unlikely that catch options will change in the next three years, we are hopeful that we will make progress this year in agreeing multi-annual regulatory measures.

In looking back over the Next Steps process that NASCO has undertaken, I think we can all be proud of the way in which we have embraced the opportunity to reflect upon the Organization’s past and examine its fitness for the future. The review has been conducted in an open and transparent manner and we have benefited greatly from the input of the public and the close interaction with our NGO partners. We are confident that the Strategic Plan adopted and immediately implemented last year will make our Organization more efficient, effective and stronger.

We are pleased that the North American NGOs are once again accredited and are participating as observers at this Annual Meeting. We are encouraged by the recommendations from the Next Steps Task Force that, if adopted by the Council, will provide the NGOs with a more meaningful role in the Organization and in the Annual Meeting.

While we can be proud of our progress to date, in many ways the biggest challenge is before us at this meeting. The Implementation Plans and Review Process are essential elements of the Next Steps Process. NASCO has committed to increase its transparency, accountability, and effectiveness and Implementation Plans are essential to accomplishing these goals. Now is not the time to relax, but instead we must intensify our efforts and dedicate the necessary time and resources to get the Implementation Plans right.

It is very positive that NASCO and the Parties have agreed to implement a process to review and evaluate the work completed and planned by the Parties. The Review process will allow for constructive criticism of our individual efforts, as well as an opportunity to learn from each other. We look forward to discussions this week to identify the most appropriate composition and function of the review committee.

We should be proud of the bold steps the Organization has taken as part of the Next Steps process and our conviction and commitment cannot waiver at this critical juncture. While we may not draft perfect Implementation Plans the first time, or create the ideal Review Process, we must be willing to move forward and experiment. We will learn from our efforts and improve and refine them in the future.
The US delegation looks forward to working with you, Mr President, the Secretariat, the Parties and our NGO partners this week. While the challenges facing wild salmon are great, we are confident that we will achieve success given the expertise, attitude and excellent spirit of the NASCO Parties.

Thank you
Opening Statement made by Non-Government Organizations
Mr State Secretary, Mr President, delegates and colleagues:

I am pleased to present the opening statement on behalf of the NGOs. This year we are joined by Stop Salmon Drift Nets Now, Ireland, and re-joined by ASF and WWF.

We are now approaching the conclusion of the “Next Steps for NASCO” process, with which we have all been heavily involved over the past two years. As you know, it was NGOs who originally proposed a Review of NASCO at 20 years, and who called for some radical changes to the Organization. We want to begin by congratulating NASCO on the way this Review has been carried out. Not only has it been an open and transparent process, but the Parties have shown a real willingness to embrace change. Of course, not all our proposals have been accepted. Our call for fundamental mandate change, aimed at giving NASCO real teeth, was seen as too time-consuming and perhaps too risky. So instead we are about to embark on an alternative solution, an assessment of implementation plans prepared by the Parties, and we look forward to the Special Session on that subject. We are aware that there are concerns about this new process, and particularly about the work of the ad hoc Review Group which will advise the President. We share those concerns, but it is important that the new process works, and we look forward to working with the Organization to make sure that it does.

Obviously, we also welcome the other recommendations of the Task Force, especially those concerning transparency and inclusion of NGOs in the whole NASCO process. There is, of course, one quite important final step - Council has to consider the Task Force recommendations; this will be debated in another Special Session, and we very much hope that Council will give them their seal of approval.

Now the Next Steps process is almost complete, it is time to re-focus on the fundamental objectives of NASCO - the conservation of Atlantic salmon. Despite all our efforts, many stocks remain in a perilous state. We draw your attention to the ACFM report, which recommends no exploitation at West Greenland and decreased exploitation for all stocks in both the North American and North-East Atlantic Commission Areas. We also draw your attention to the ACFM conclusion that the percentage of salmon caught in coastal fisheries remains high.

For the past few years we have focused our attention on the Irish Drift Nets, and the continued failure of the Irish Government to follow the advice of both ICES and their own scientists in respect of this damaging mixed stock fishery.

The Irish Government has now announced decisions to “introduce measures to fully align with the scientific advice” in the management of its salmon fishery and to adopt a precautionary approach from 2007. It has set up a working group to make recommendations on compensation for the commercial sector. These decisions must inevitably lead to the end of the mixed stock fishery with the conclusion of the 2006 season.

The NGO community very much welcomes these decisions but feels that it is necessary to point out that Ireland’s record in following through on commitments in relation to the management of the salmon fishery is poor. In particular we would draw attention to the failure to implement the 2003 ministerial commitment to implement the scientific advice in 2005. We will, therefore, be following matters closely over the coming months.
This will allow us to focus on the many smaller coastal fisheries in the home waters of Parties which continue to exploit mixed stocks of salmon, and we will be returning to these in the appropriate Commission.

Turning to other matters, some of us here attended the recent symposium in Bergen. We have particular concerns about the continuing high levels and impacts of escaped farmed salmon highlighted here.

We will be raising this subject in the appropriate Commissions. I am also pleased to note the State Secretary’s comments about *Gyrodactylus*.

Finally, I would like to emphasis the support of the NGOs for the SALSEA project, which many of us believe should be a central focus of NASCO’s work. The NGO community is ready to play a full part in the project but emphasizes the need for all the Parties to show leadership in taking SALSEA forward.

Mr President, delegates, thank you for your attention. We look forward to raising these and other important issues later during the meeting.
ANNEX 5

List of Participants

* Denotes Head of Delegation

CANADA

*Mr Guy Beaupré  Representative  Department of Fisheries and Oceans, Ottawa, Ontario

Mr Bud Bird  Representative  Fredericton, New Brunswick

Mr Serge Tremblay  Representative  Ministère des Ressources Naturelles et de la Faune du Québec, Québec

Mr Willie Bruce  Regional Director, Department of Fisheries and Oceans, St John’s, Newfoundland

Mr Gerald Chaput  Department of Fisheries and Oceans, Moncton, New Brunswick

Mr Peter Cronin  New Brunswick Department of Natural Resources and Energy, Fredericton, New Brunswick

Mrs Nathalie Girouard  Department of Fisheries and Oceans, Ottawa, Ontario

Mr Murray Hill  Department of Fisheries, Pictou, Nova Scotia

Mr Maurice Mallet  Department of Fisheries and Oceans, Moncton, New Brunswick

Mr David Meerburg  Department of Fisheries and Oceans, Ottawa, Ontario

Mr Tim Young  Department of Fisheries and Oceans, Ottawa, Ontario

DENMARK (IN RESPECT OF THE FAROE ISLANDS AND GREENLAND)

* Mr Andras Kristiansen  Representative  Ministry of Fisheries and Maritime Affairs, Torshavn, Faroe Islands

Mr Kaj P Mortensen  Representative  Ministry of Foreign Affairs, Faroe Islands

Ms Jeanette Holding  Representative  Department of Fisheries and Hunting, Nuuk, Greenland
Dr Jan Arge Jacobsen  Faroese Fisheries Laboratory, Torshavn, Faroe Islands
Ms Mira Ann Kalsi  Department of Fisheries and Hunting, Nuuk, Greenland

EUROPEAN UNION

* Mr Alan Gray  Representative
  European Commission, Brussels, Belgium
Ms Carmen Beraldi  Secretaria General de Pesca, Madrid, Spain
Mr Paul Chapinal  Department for Environment, Food and Rural Affairs, London
Mr David Dunkley  Scottish Executive Environment and Rural Affairs Department, Edinburgh, UK
Dr Jaakko Erkinaro  Finnish Game and Fisheries Research Institute, Oulu, Finland
Mr Lal Faherty  Western Regional Fisheries Board, Galway, Ireland
Dr Ulrich Fassbender  Federal Ministry of Consumer Protection, Food and Agriculture, Bonn, Germany
Mr Peter Funegard  Swedish Board of Fisheries, Gothenburg, Sweden
Dr Paddy Gargan  Central Fisheries Board, Dublin, Ireland
Ms Fiona Grant  Central Fisheries Board, Dublin, Ireland
Ms Eija Kirjavainen  Ministry of Agriculture and Forestry, Department of Fisheries and Game, Helsinki, Finland
Dr Ursula Monnerjahn  Federal Agency for Agriculture and Food, Bonn, Germany
Mr Pentti Munne  Ministry of Agriculture and Forestry, Department of Fisheries and Game, Helsinki, Finland
Mr John O'Connor  Central Fisheries Board, Swords, Dublin
Dr Niall Ó Maoileidigh  Marine Institute, Dublin, Ireland
Mr Ted Potter  Centre for Environment, Fisheries and Aquaculture Science, Lowestoft, UK
Mr Frank Sheridan  Department of Communications, Marine and Natural Resources, Dublin, Ireland
Mr Gordon Smith  Fisheries Research Services, Montrose, UK
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<tr>
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<td>Mr Andrew Wallace</td>
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<td>Dr Ken Whelan</td>
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<td>Mr Godfrey Williams</td>
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<td>Mr Rafail Ruzheinikov</td>
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<td>Dr Alexander Zubchenko</td>
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<td>*Ms Mary Colligan</td>
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<td>Mr Stephen Gephard</td>
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<td>Dr James G Geiger</td>
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<td>Mr Andrew Goode</td>
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<td>Mr Patrick Keliher</td>
<td>Maine Atlantic Salmon Commission, Augusta, Maine</td>
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<td>Mr Rory Saunders</td>
<td>National Marine Fisheries Service, Orono, Maine</td>
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<td>Mr Pasquale Scida</td>
<td>National Marine Fisheries Service, Gloucester, Massachusetts</td>
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**STATES NOT PARTIES TO THE CONVENTION**

**France (in respect of St Pierre and Miquelon)**

Mr Christophe Lenormand Ministère de l’Agriculture, de l’Alimentation, de la Pêche, Paris, France

**INTER-GOVERNMENT ORGANIZATIONS**

Mr Andras Kristiansen North Atlantic Marine Mammal Commission, Tromsø, Norway

Mr Tim Sheehan Chairman, ICES Working Group on North Atlantic Salmon, Massachusetts, USA

**NON-GOVERNMENT ORGANIZATIONS**

Mr Chris Poupard Chairman of NASCO’s Accredited NGOs, and European Anglers’ Alliance

Dr Frederic Mazeaud Association Internationale de Défense du Saumon

Mr Christian Vernes Atlantique, France

Mr Hugh Campbell Adamson Association of Salmon Fishery Boards, UK

Ms Sue Scott Atlantic Salmon Federation (Canada)
Mr Neil McKerrow Atlantic Salmon Trust, UK
Mr Noel Carr Federation of Irish Salmon and Sea-Trout Anglers, Ireland
Mr Patrick Martin Fondation Saumon, France
Mr John Gregory Institute of Fisheries Management, UK
Mr Patrick Byrne National Anglers Representative Association, Ireland
Mr Øyvind Fjeldseth Norwegian Association of Hunters & Anglers, Norway
Mr Espen Farstad
Mr Ola Hoen Norwegian Farmers Union, Norway
Mr Aage Wold Norskelakseelver (Norwegian Salmon Rivers), Norway
Mr Paul Knight Salmon and Trout Association, UK
Mr Ian Calcott Scottish Anglers National Association, UK
Mr Niall Greene Stop Salmon Drift Nets Now, Ireland
Mr Martin Arnould World Wide Fund for Nature, France
Dr Gareth Porter WWF (US)

SPECIAL ADVISOR
Mr Jacque Robichaud

SECRETARIAT
Dr Malcolm Windsor Secretary
Dr Peter Hutchinson Assistant Secretary
Miss Margaret Nicolson PA to the Secretary
Ms Mairi Ferguson PA

Support Staff
Ms Anne Harju
Ms Helena Havu
Ms Sanni Jorgensen
Mr Juhani Oinas
Annex 6

CNL(06)42

Twenty-Third Annual Meeting of the Council
Hotel Riekonlinna, Saariselkä, Finland

5-9 June, 2006

Agenda

1. Opening Session
2. Adoption of Agenda
3. Election of Officers
4. Financial and Administrative Issues
   4.1 Report of the Finance and Administration Committee
5. Scientific, Technical, Legal and Other Information
   5.1 Secretary’s Report
   5.2 Report on the Activities of the Organization in 2005
   5.3 Announcement of the Tag Return Incentive Scheme Grand Prize
   5.4 Scientific Advice from ICES
   5.5 Catch Statistics and their Analysis
   5.6 Scientific Research Fishing in the Convention Area
   5.7 Report of the International Atlantic Salmon Research Board
   5.8 Report of the Standing Scientific Committee
6. Next Steps for NASCO
   6.1 Special Session: Progress with the Next Steps Strategy
      (a) Overview of progress with decisions taken in Vichy
      (b) Report of the ‘Next Steps for NASCO’ Task Force
   6.2 Decisions by the Council
7. **Conservation, Restoration, Enhancement and Rational Management of Atlantic Salmon under the Precautionary Approach**

7.1 Measures Taken in Accordance with Articles 14 and 15 of the Convention

7.2 Special Session: Reports by the Parties or relevant jurisdictions on progress in implementing NASCO’s agreements

7.3 Aquaculture, Introductions and Transfers, and Transgenics
   
   (a) Amendments to the Williamsburg Resolution
   (b) Liaison with the Salmon Farming Industry
   (c) Report of the Trondheim Workshop “Wild and Farmed Salmon – Working Together”
   (d) Report of the ICES/NASCO Bergen Symposium

7.4 New or emerging opportunities for, or threats to, salmon conservation and management

7.5 Report of the Working Group on Bio-economic Modelling

7.6 Progress with the development of the Database of Salmon Rivers

7.7 St Pierre and Miquelon salmon fishery

7.8 Impacts of acid rain on Atlantic salmon

7.9 Reports on the work of the three regional Commissions

8. **Other Business**

9. **Date and Place of Next Meeting**

10. **Report of the Meeting**

11. **Press Release**
2007 Budget, 2008 Forecast Budget and Schedule of Contributions
## North Atlantic Salmon Conservation Organization
### 2007 Budget and 2008 Forecast Budget (Pounds Sterling)

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<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Expenditure</th>
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<tr>
<td>2</td>
<td>Travel and subsistence</td>
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<td>3</td>
<td>Research and advice</td>
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<td>4</td>
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<td>Meetings</td>
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<td>Communications</td>
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<td>8</td>
<td>Headquarters Property</td>
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<td>10</td>
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<td>12</td>
<td>International Atlantic Salmon Research Fund</td>
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<td></td>
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<table>
<thead>
<tr>
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<td>Contributions - Contracting Parties</td>
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<td>14</td>
<td>Miscellaneous Income - Interest</td>
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<td>15</td>
<td>Stabilisation</td>
</tr>
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<td>16</td>
<td>Surplus or Deficit (-) from 2005</td>
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<td></td>
<td>Total</td>
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### Adjustments to 2006 contributions (Pounds Sterling)
to take into account confirmed 2004 Catch Statistics

<table>
<thead>
<tr>
<th>Party</th>
<th>2004 Provisional catch</th>
<th>2004 Confirmed catch</th>
<th>2006 Contribution based on provisional catch</th>
<th>2006 Contribution based on confirmed catch</th>
<th>Adjustment to 2006 contribution</th>
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<tbody>
<tr>
<td>Canada</td>
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<td>161</td>
<td>49,898</td>
<td>49,556</td>
<td>-342</td>
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<tr>
<td>Denmark (Faroe Islands and Greenland)</td>
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<td>15</td>
<td>25,069</td>
<td>24,831</td>
<td>-238</td>
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<tr>
<td>European Union</td>
<td>926</td>
<td>978</td>
<td>183,068</td>
<td>187,910</td>
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<td>130</td>
<td>44,862</td>
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<td>Norway</td>
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<td>784</td>
<td>158,413</td>
<td>155,057</td>
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<tr>
<td>Russian Federation</td>
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<td>0</td>
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<td><strong>TOTAL</strong></td>
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Note: A positive adjustment represents an underpayment in 2006.

### NASCO Budget Contributions for 2007 and Forecast
Budget Contributions for 2008 (Pounds Sterling)

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<td>23,955</td>
<td>24,206</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>2,117</strong></td>
<td><strong>558,940</strong></td>
<td><strong>0</strong></td>
<td><strong>558,940</strong></td>
<td><strong>564,810</strong></td>
</tr>
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</table>

Contributions are based on the official catch returns. Column totals can be in error by a few pounds due to rounding.
Council

CNL(06)7

Report of the ICES Advisory Committee on Fishery Management

(Sections 1, 2 and 6 only)

Only the advice concerning general issues of relevance to the North Atlantic is given in this report. The detailed advice on a Commission area basis is annexed to the report of the Commissions.
1. INTRODUCTION

1.1 Main Tasks

At its 2005 Statutory Meeting, ICES resolved (C. Res. 2005/2ACFM04) that the Working Group on North Atlantic Salmon [WGNAS] (Chair: T Sheehan, USA) will meet 4–13 April 2006 in Copenhagen, Denmark, to consider questions posed to ICES by the North Atlantic Salmon Conservation Organisation (NASCO). The terms of reference were met and the sections of the report which provide the answers are below:

<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. INTRODUCTION</td>
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</tr>
<tr>
<td>1.1 Main Tasks</td>
<td>null</td>
</tr>
<tr>
<td>1. section 2</td>
<td>a) With respect to Atlantic salmon in the North Atlantic area:</td>
</tr>
<tr>
<td></td>
<td>1) provide an overview of salmon catches and landings, including unreported catches by country and catch and release, and worldwide production of farmed and ranched Atlantic salmon in 2005;</td>
</tr>
<tr>
<td></td>
<td>2) report on significant developments which might assist NASCO with the management of salmon stocks including new or emerging threats to, or opportunities for, salmon conservation and management;</td>
</tr>
<tr>
<td></td>
<td>3) report on developments in methods to identify origin of Atlantic salmon at a finer resolution than continent of origin (river stocks, country or stock complexes);</td>
</tr>
<tr>
<td></td>
<td>4) describe sampling programmes for escaped farmed salmon, the precision of the identification methods employed and the reliability of the estimates obtained;</td>
</tr>
<tr>
<td></td>
<td>5) provide an assessment of the minimum information needed which would signal a significant change in the previously provided advice for each Commission area;</td>
</tr>
<tr>
<td></td>
<td>6) provide a compilation of tag releases by country in 2005;</td>
</tr>
<tr>
<td></td>
<td>7) identify relevant data deficiencies, monitoring needs and research requirements</td>
</tr>
<tr>
<td></td>
<td>b) With respect to Atlantic salmon in the North-East Atlantic Commission area:</td>
</tr>
<tr>
<td></td>
<td>1) describe the key events of the 2005 fisheries and the status of the stocks;</td>
</tr>
<tr>
<td></td>
<td>2) provide any new information on the extent to which the objectives of any significant management measures introduced in recent years have been achieved;</td>
</tr>
<tr>
<td></td>
<td>3) further develop the age-specific stock conservation limits where possible based upon individual river stocks;</td>
</tr>
<tr>
<td></td>
<td>4) provide annual catch options or alternative management advice for 2006-2008, if possible based on forecasts of PFA for northern and southern stocks, with an assessment of risks relative to the objective of exceeding stock conservation limits and advise on the implications of these options for stock rebuilding;</td>
</tr>
<tr>
<td></td>
<td>5) update and further refine estimates of bycatch of salmon in pelagic fisheries (including non-catch fishing mortality) with an assessment of impacts on returns to homewaters.</td>
</tr>
<tr>
<td></td>
<td>c) With respect to Atlantic salmon in the North American Commission area:</td>
</tr>
<tr>
<td></td>
<td>6) describe the key events of the 2005 fisheries (including the fishery at St Pierre and Miquelon) and the status of the stocks;</td>
</tr>
<tr>
<td></td>
<td>7) provide any new information on the extent to which the objectives of any significant management measures introduced in recent years have been achieved;</td>
</tr>
<tr>
<td></td>
<td>8) update age-specific stock conservation limits based on new information as available;</td>
</tr>
<tr>
<td></td>
<td>9) provide annual catch options or alternative management advice for 2006-2008 with an assessment of risks relative to the objective of exceeding stock conservation limits and advise on the implications of these options for stock rebuilding;</td>
</tr>
<tr>
<td></td>
<td>d) With respect to Atlantic salmon in the West Greenland Commission area:</td>
</tr>
<tr>
<td></td>
<td>10) describe the events of the 2005 fisheries and the status of the stocks;</td>
</tr>
<tr>
<td></td>
<td>11) provide any new information on the extent to which the objectives of any significant management measures introduced in recent years have been achieved;</td>
</tr>
<tr>
<td></td>
<td>12) provide annual catch options or alternative management advice for 2006–2008 with an assessment of risk relative to the objective of exceeding stock conservation limits and advise on the implications of these options for stock rebuilding.</td>
</tr>
</tbody>
</table>
Notes:
1. NASCO’s International Atlantic Salmon Research Board’s inventory of on-going research relating to salmon mortality in the sea will be provided to ICES to assist it in this task.
2. In the responses to questions 2.1, 3.1 and 4.1 ICES is asked to provide details of catch, gear, effort, composition and origin of the catch and rates of exploitation. For homewater fisheries, the information provided should indicate the location of the catch in the following categories: in-river; estuarine; and coastal. Any new information on non-catch fishing mortality, of the salmon gear used, and on the bycatch of other species in salmon gear, and on the bycatch of salmon in any existing and new fisheries for other species is also requested.
3. In response to questions 2.4, 3.4 and 4.3 provide a detailed explanation and critical examination of any changes to the models used to provide catch advice.
4. In response to question 4.1, ICES is requested to provide a brief summary of the status of North American and North-East Atlantic salmon stocks. The detailed information on the status of these stocks should be provided in response to questions 2.1 and 3.1.

1.2 Management framework for salmon in the North Atlantic

The advice generated by ICES is in response to terms of reference posed by the North Atlantic Salmon Conservation Organization (NASCO), pursuant to its role in international management of salmon. NASCO was set up in 1984 by international convention (the Convention for the Conservation of Salmon in the North Atlantic Ocean), with a responsibility for the conservation, restoration, enhancement, and rational management of wild salmon in the North Atlantic. While sovereign states retain their role in the regulation of salmon fisheries for salmon originating from their own rivers, distant water salmon fisheries, such as those at Greenland and Faroes, which take salmon originating from rivers of another Party are regulated by NASCO under the terms of the Convention. NASCO now has seven Parties that are signatories to the Convention, including the EU which represents its Member States.

NASCO discharges these responsibilities via three Commission areas shown below:

1.3 Management objectives

NASCO (NASCO CNL31.210) has identified the primary management objective of that organisation as:

“To contribute through consultation and co-operation to the conservation, restoration, enhancement and rational management of salmon stocks taking into account the best scientific advice available”.

NASCO further stated that “the Agreement on the Adoption of a Precautionary Approach states that an objective for the management of salmon fisheries is to provide the diversity and abundance of salmon stocks” and NASCOs Standing Committee on the Precautionary Approach interpreted this as being “to maintain both the productive capacity and diversity of salmon stocks”.
NASCO’s Action Plan for Application of the Precautionary Approach (NASCO, 1999) provides interpretation of how this is to be achieved, as follows:

- “Management measures should be aimed at maintaining all stocks above their conservation limits by the use of management targets”.
- Socio-economic factors could be taken into account in applying the Precautionary Approach to fisheries management issues”.
- “The precautionary approach is an integrated approach that requires, inter alia, that stock rebuilding programmes (including as appropriate, habitat improvements, stock enhancement, and fishery management actions) be developed for stocks that are below conservation limits”.

### 1.4 Reference points and application of precaution

Conservation limits (CLs) for North Atlantic salmon stock complexes have been defined by ICES as the level of stock (number of spawners) that will achieve long-term average maximum sustainable yield (MSY). In many regions of North America, the conservation limits are calculated as the number of spawners required to fully seed the wetted area of the river. In some regions of Europe, pseudo stock-recruitment observations are used to calculate a hockey stick relationship, with the inflection point defining the conservation limits. In the remaining regions, the conservation limits are calculated as the number of spawners that will achieve long-term average maximum sustainable yield (MSY), as derived from the adult-to-adult stock and recruitment relationship (Ricker, 1975; ICES, 1993). NASCO has adopted the region-specific conservation limits (NASCO, 1998). The conservation limits are limit reference points (Slim), which should be avoided with high probability.

Management targets have not yet been defined for all North Atlantic salmon stocks. When these have been defined they will play an important role in ICES advice.

For the assessment of the status of stocks and advice on management of national components and geographical groupings of the stock complexes in the NEAC area, where there are no specific management objectives:

- ICES considers a stock to be at full reproductive capacity when the lower bound of the 95% confidence interval of the current estimate of spawners is above the CL.
- ICES considers a stock to be at risk of suffering reduced reproductive capacity when the lower boundary of the confidence limit is below the CL, but the midpoint is above.
- ICES considers a stock to be suffering reduced reproductive capacity when the midpoint is below the CL.

It should be noted that this is equivalent to the ICES precautionary reference points (Spa). Therefore, stocks are regarded by ICES as being at full reproductive capacity only if they are above the precautionary reference point (Spa). This approach parallels the use of precautionary reference points used for the provision of catch advice for other fish stocks in the ICES area.

For management of the West Greenland fishery, NASCO has adopted a precautionary management plan requiring at least a 75% probability of achieving three management objectives:

- Meeting the conservation limits (Slim) simultaneously in the four northern regions of North America: Labrador, Newfoundland, Quebec, and Gulf.
- Achieving increases in returns to the Scotia-Fundy and USA regions relative to the base years 1992–1996. Improvements of greater than 25% and 10% relative to base year returns are presented although, to achieve a 25% increase, by definition the 10% increase is also achieved.
- Meeting the conservation limits (Slim) for the Southern NEAC MSW complex.

ICES applies the 75% threshold in the advice for the West Greenland fishery.
2. ATLANTIC SALMON IN THE NORTH ATLANTIC AREA

2.1 Catches of North Atlantic Salmon

2.1.1 Nominal catches of salmon

Nominal catches of salmon reported for each salmon-producing country in the North Atlantic are given in Table 2.1.1.1 for the years 1960–2005. These catches (in tonnes) are illustrated in Figure 2.1.1.1 for four North Atlantic regions. Catch statistics in the North Atlantic also include fish farm escapees and, in some North-East Atlantic countries, also ranched fish. Reported catches for the three NASCO Commission Areas for 1996–2005 are provided below.

<table>
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<tr>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>NEAC</td>
<td>2750</td>
<td>2074</td>
<td>2225</td>
<td>2073</td>
<td>2736</td>
<td>2876</td>
<td>2495</td>
<td>2303</td>
<td>1977</td>
<td>1964</td>
</tr>
<tr>
<td>NAC</td>
<td>294</td>
<td>231</td>
<td>159</td>
<td>154</td>
<td>155</td>
<td>150</td>
<td>150</td>
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<td>164</td>
<td>132</td>
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<tr>
<td>WGC</td>
<td>92</td>
<td>59</td>
<td>11</td>
<td>19</td>
<td>21</td>
<td>43</td>
<td>9</td>
<td>9</td>
<td>15</td>
<td>14</td>
</tr>
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<td>2364</td>
<td>2396</td>
<td>2246</td>
<td>2913</td>
<td>3069</td>
<td>2654</td>
<td>2456</td>
<td>2156</td>
<td>2110</td>
</tr>
</tbody>
</table>

The catch data for 2005 are provisional, but the total nominal catch of 2110 t is the lowest on record. Catches for most countries were below the recent 5 and 10 year averages, and in four countries were the lowest in the time series.

The nominal catch (in tonnes) of wild fish in 2005 was partitioned according to whether the catch was taken in coastal, estuarine, or riverine fisheries. These are shown below for the NEAC and NAC Commission Areas. It was not possible to apportion the small Danish catches in 2005 and these have been excluded from the calculation. The percentages accounted for by each fishery varied considerably between countries. In total, however, coastal fisheries accounted for 43% of catches in North East Atlantic countries compared to 20% in North America, whereas in-river fisheries took 50% of catches in North East Atlantic countries compared to 59% in North America:

<table>
<thead>
<tr>
<th>AREA</th>
<th>COAST</th>
<th>ESTUARY</th>
<th>RIVER</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WEIGHT %</td>
<td>WEIGHT %</td>
<td>WEIGHT %</td>
<td>WEIGHT</td>
</tr>
<tr>
<td>NEAC</td>
<td>843</td>
<td>43</td>
<td>129</td>
<td>987</td>
</tr>
<tr>
<td>NAC</td>
<td>27</td>
<td>20</td>
<td>27</td>
<td>20</td>
</tr>
</tbody>
</table>

ICES notes that the percentage of coastal fisheries catches remains high in the NEAC and NAC Commission areas and has increased within the NAC area (Figure 2.1.1.2). NASCO’s management goal is to reduce exploitation to allow river-specific conservation limits to be met. This is best achieved by only allowing fisheries in estuaries and rivers which target stocks that are above the conservation limits. Therefore, the continuation of coastal fisheries in all Commission areas is of concern.

2.1.2 Catch and release

The practice of catch and release in rod fisheries has become increasingly common as a salmon management/conservation measure in light of the widespread decline in salmon abundance in the North Atlantic. For countries that reported such data in 2005, the percentage of the total rod catch that was released ranged from 17% in Iceland to 87% in Russia. Catch and release rates have generally increased over the last decade. Overall, almost 128 000 salmon were reported to have been released in 2005.

2.1.3 Unreported catches

The estimated unreported catch within the NASCO Commission Areas in 2005 was 717 t (Table 2.1.1.1), or 26% of the total catch. The unreported catch, expressed as a percentage of the total North Atlantic catch (nominal and unreported), has fluctuated between 23–34% since 1987. There has been a downward trend over the past 7 years, but this decrease is within the historical range of past variation. The introduction of carcass tagging programmes in Ireland and UK (N. Ireland) has lead to reductions in unreported catches in these countries. After 1994 there are no available data on the extent of possible salmon catches in international waters. Estimates (in tonnes) of unreported catches for the three Commission Areas for the period 1996–2005 are given below:
Expressed as a percentage of the total North Atlantic catch, unreported catch estimates range from 0% to 13% for individual countries. However, it should be noted that methods of estimating unreported catch vary both within and among countries. The non-reporting rates range from 2% to 56% of the total national catch in individual countries. An allowance for unreported catch is included in the assessments and catch advice for each Commission area.

### 2.2 Farming and sea ranching of Atlantic salmon

The provisional estimate of farmed Atlantic salmon production in the North Atlantic area for 2005 is 784,611 t. This represents a decrease on 2004 (831,207 t), but a 5% increase on the 5-year mean (2000–2004). Most of the North Atlantic production took place in Norway (72%) and UK (Scotland) (17%).

Worldwide production of farmed Atlantic salmon has been in excess of one million tonnes since 2002. Total production in 2005 is provisionally estimated at 1,261,638 tonnes (Figure 2.2.1), a 9% increase on 2004. Production outside the North Atlantic is currently estimated to account for 38% of total farmed production, with Chile (405,200 t) contributing the largest proportion of the production in this area. World-wide production of farmed Atlantic salmon in 2005 was almost 600 times the reported nominal catch of Atlantic salmon in the North Atlantic. Farmed salmon therefore dominate world markets.

Catches of ranched salmon have declined substantially from a high of over 500 t in 1993 to around 8 t in 2005 (Figure 2.2.2). This is due to the cessation of salmon ranching in Iceland from 1999.

### 2.3 NASCO has asked ICES to report on significant developments which might assist NASCO with the management of salmon stocks, including new or emerging threats to, or opportunities for, salmon conservation and management

#### 2.3.1 Evaluation of options to develop a multi-year forecast of PFA$_{NA}$ abundance

A forecast of the 1SW non-maturing fish PFA for North America is derived from the lagged spawner (LS) abundance which would contribute to the recruitment. ICES has previously described two temporal phases (ICES, 2003) of salmon production in the Northwest Atlantic. The PFA forecast model approximates production rate as a fixed parameter conditional on two levels of productivity. Using the PFA forecast model and the estimated lagged spawner values, three years of forecasts of PFA could be obtained. An evaluation of options for the development of a multi-year forecast and catch options was done using mid-point values of PFA and lagged spawner abundance. ICES concludes that the PFA forecast model can be used for up to three years and this approach was used to provide the multi-year forecasts of abundance for the North American PFA (Section 4.6–4.7).

#### 2.3.2 Post-smolt trawling in the Labrador Sea, Fall 2005

In September 2005, the Canadian RV “Wilfred Templeman” carried out a series of trawl and gillnet surveys in areas of the Labrador Sea where salmon post-smolts and adult salmon had previously been caught. A total of 47 post-smolts and 11 adult salmon were caught during two gillnet sets, but only one post-smolt was caught during the trawling. This post-smolt was caught at night, suggesting that salmon might have been deeper in the water column during the day; salmon tagged with data storage tags have shown that salmon may be found closer to the surface at night.

A disease survey on 90 salmon collected in 2005 and 2001 indicated an absence of disease pathogens, including ISAV and VHSV. Based on these results, it is unlikely that these disease pathogens are prevalent in salmon in the Labrador Sea.

#### 2.3.3 Fatty acid profiles and stock discrimination

The profile of fatty acids in selected tissues has been shown to differ between recognised stocks of fish. Results from a pilot project on fatty acid profiles in Atlantic salmon were presented to ICES and demonstrated a genetic
component in the determination of the composition of the tissue fatty acids. The results indicated the potential for using fatty acid profiles in stock identification either on its own or in combination with other methods.

2.3.4 Preliminary investigations into the deterrence of cormorants to reduce predation on migratory smolts

ICES reviewed a study (Maine, USA) to assess the efficacy of non-lethal exclusion of double-crested cormorants from the lower Narraguagus River as a means of reducing predation on migrating Atlantic salmon smolts. Results of this study indicate that harassment activities were successful in displacing birds and changing their behaviour, but were not successful in excluding cormorants from the freshwater and estuary areas entirely. There was no apparent increase in smolt survival related to the cormorant harassment activities.

2.4 NASCO has asked ICES to report on developments in methods to identify origin of Atlantic salmon at a finer resolution than continent of origin (river stocks, country or stock complexes)

Within a mixed stock fishery, the identification of origin and composition of the catch is essential for responsible management. Various collaborative genetic stock identification projects are ongoing which may yield significant advances in techniques and methods in coming years:

- The Atlantic Salmon Arc Project (ASAP) – Aims to collect samples from the majority of salmon rivers on the Western Atlantic coast of Europe and use methods of Genetic Stock Identification (GSI) to 'genetically type' salmon from particular regions and rivers.
- SALMAN (Atlantic Salmon Microsatellite Analysis Network) – Aims to agree on standardised screening methods for data to develop an international database on microsatellite variation in Atlantic salmon for use in GSI work at local, regional and continental scales.
- FishTrace – an EU project to develop a reference database that links genetic, taxonomic, and biological data for the main European commercial fish species.
- Stock Identification of Irish Salmon Stocks – Aims to establish a baseline of genetic markers for all Irish salmon rivers combined with GIS mapping of spawning areas to provide information relative to identified spawning areas.

ICES recommends that sampling programmes for all mixed-stock fisheries and populations contributing to mixed-stock fisheries be continued or initiated to further support analyses on the impacts of mixed stock fisheries.

ICES recommends the continued development of genetic stock identification methods for determining the composition of mixed stock fisheries.

2.4.1 West Greenland mixed stock fishery

ICES previously endorsed the Probabilistic-based Genetic Assignment model (PGA) for partitioning the harvest of mixed stock fisheries at a finer scale than continent of origin (ICES 2005). New information was available for 2003–2004 which was in agreement with previous estimates that the North American stock complex dominated the catch since 2000 (approximately 64–73%). Furthermore, more than 96% of the North American contribution was from the Canadian stock complex.

2.4.2 Spatio-temporal distribution of North American Atlantic salmon populations off West Greenland

ICES previously noted that reference baseline datasets for the European and Canadian stock complexes lack adequate spatial and temporal coverage for finer scale assignments with acceptable accuracy. ICES was informed of a new project to evaluate the spatio-temporal distribution of North American Atlantic salmon populations on the west coast of Greenland, using microsatellite markers. To date, 70 rivers have been sampled and will comprise the reference populations for the analyses.

2.4.3 St. Pierre and Miquelon mixed stock fishery

ICES noted that a sampling programme was conducted in the mixed-stock fishery at St. Pierre and Miquelon in 2004. The PGA was applied to 134 scale and tissue samples. As expected, all the samples were assigned to
North America; it was estimated that 2% of the harvest originated from USA while the remaining 98%
originated from Canada.

2.5 NASCO has asked ICES to describe sampling programmes for escaped farmed salmon, the precision of the identification methods employed and the reliability of the estimates obtained

The production of farmed Atlantic salmon has increased considerably over the past 20 years, and farmed salmon now far outnumber their wild conspecifics. Some of these farmed fish escape into the wild, and this may lead to mixing with local stocks and to potentially harmful effects on these stocks and other species.

2.5.1 Techniques for identifying escaped farmed salmon

There are a range of techniques for identifying fish farm escapees:

- **Morphology / Morphometry** – Farmed salmon commonly have external defects on the fins and elsewhere, which can be used to distinguish them from wild fish. The extent to which such defects may be manifest will be affected by a range of factors, including the rearing conditions in the farm, the age and stage at the time of escape, and the period of time at large prior to capture. Such defects allow the identification of farmed salmon by laymen, although the reliability of detection is unclear. Discriminant models, based on measurements of fins and other morphological features have shown high accuracy (usually up to 100%) for fish that have recently escaped.

- **Scale and otolith pattern recognition** – Scales are not regarded as reliable for discriminating farmed fish that escape early in their life (e.g. at the fry stage) from wild fish. However, differences in growth patterns between farmed and wild fish can be detected in both scales and otoliths. In USA, using only images of scales from known origin adult salmon, readers had 80% accuracy distinguishing aquaculture fish from wild and restoration fish.

- **Biochemical and physiological markers** – Farmed fish are commonly vaccinated and this leads to intra-abdominal adhesions, which can be detected by inspection of the opened abdominal cavity. The use of carotenoid pigments (canthaxanthin and astaxanthin) in the food of farmed salmon provides another approach for identifying farmed fish and their progeny. In addition, trace elements and stable isotopes in fish can provide a chemical signature of the environment at the time of bone or scale formation. The accuracy of this technique is unknown.

- **Genetic markers** – The recent development of genetic markers has provided useful new methods for stock identification. By combining information from highly polymorphic DNA markers and new statistical methods (assignment tests) it is possible to assign probabilities that samples originate from different populations. Because farmed Atlantic salmon consist of relatively few strains, this technique has the potential to distinguish wild salmon from farmed salmon. However, to date this is not yet possible for populations that are close to farmed salmon cages. In the USA, aquaculture companies have proposed to apply genetic marking to develop a unique company mark.

- **Large-scale group marking in farms** – Large-scale marking programmes have the potential to provide 100% accuracy at identifying a farmed salmon. Some countries now require a proportion of the fish held in sea cages to be marked with coded wire tags.

**Conclusion**

Options for screening farmed fish cover different requirements and the choice of method needs to be evaluated against the objectives of particular programmes. The methods outlined above, with the possible exception of otolith microchemistry and genetic techniques, can class fish as either farmed or wild, but they cannot identify the origin of the farmed fish. Where greater certainty is required a combination of methods is likely to be required.

For routine monitoring purposes, and where there may be a requirement for fish to be kept alive, there is a need for relatively easy field sampling and laboratory processes. Currently a combination of morphological examination and scale analysis is currently considered be the most practical and cost-effective option in such cases. New genetic stock identification techniques may identify wild from farm salmon and may allow the identification of the origin of escaped farm salmon. These techniques may become the preferred method in the future.
However, the most important requirement is to limit the impact of farm escapees on spawning stocks. More emphasis should be placed on physical means to prevent escapes and restricting their access to spawning populations (e.g. in-river trapping facilities or fisheries targeting escaped farmed salmon).

2.5.2 Sampling programmes in different countries

ICES reviewed existing sampling programmes to screen for fish farm escapees. In the NAC area, targeted sampling in the USA occurs only when fisheries agencies examine returns to traps or weirs. There has been an annual monitoring programme in the New Brunswick salmon-farming region on the Magaguadavic River since 1992. Monitoring has also included counting fences in the Bocabec River (1999–2000) and Dennis Stream (2001–2002). All adult salmon, parr, or smolts included in supportive breeding programs are genetically screened for continent of origin and for distant origin. Rivers in New Brunswick with aquaculture hatcheries have been electrofished in an attempt to assess the scale of juvenile salmon escapes and their distribution.

Screening for farmed fish occurs in most NEAC countries. Programmes vary from voluntary reporting by anglers to targeted screening of catches and in-river traps. Most screening programmes rely on scale samples in conjunction with morphometric observations to categorise salmon as wild or farmed. Since escapees can be regarded as damaged fish and sold separately, these fish are sometimes not included in the main catches being examined. Furthermore, the level of expertise and consistency of scanning may be variable. Thus estimates of farmed fish in catches are usually regarded as minimum estimates. In Norway, the behaviour and dispersal of farmed salmon is currently under investigation by means of releases of tagged fish to simulate escaped fish. In Iceland, farms are required to tag approximately 10% of the salmon reared in sea-cages. There is little systematic reporting of fish farm escapees in riverine catches. Therefore there is a lack of information on the incidence of escapees in river catches or more importantly in spawning stocks.

2.5.3 Behaviour of escaped farmed salmon

Information was available of two studies on the behaviour of escape of farmed salmon: one based on tracking escaped farmed salmon with acoustic tags, and the other from analysis of tag recoveries from farmed and wild salmon tagged with external tags. The following conclusions were drawn:

- Wild salmon returned to the river they left as smolts with high precision.
- Hatchery-reared salmon released as smolts returned to spawn in the river in which they were released.
- Hatchery-reared salmon released as smolts from a marine site returned to the same geographical sea area in which they were released, and entered rivers in this area to spawn.
- Farmed salmon released as postsmolts from a marine site survived poorly and strayed in larger numbers and over greater distances than salmon released as smolts.
- Escaped large farmed salmon were apparently ‘homeless’ and appeared to move with the prevailing current. Survival of these fish improved if they escaped close to maturity.
- Survival and migratory patterns of farmed fish were dependent on the time of escape.
- Survival and migratory patterns of farmed fish were also dependent on the life stage at escape.

2.6 NASCO has asked ICES to provide an assessment of the minimum information needed which would signal a significant change in the previously provided catch advice for each Commission area

ICES considers it highly unlikely that the catch options provided for each Commission area will change during the next three years. The lagged spawner abundance is set for the PFA years 2006–2008 for both NAC and NEAC stocks contributing to West Greenland. Those spawners have already returned to their natal rivers. Any significant change in productivity can be identified by existing monitoring programmes routinely carried out across the North Atlantic. These changes can only be detected after all the monitoring has been carried out and the results have been analysed using traditional modelling techniques.

In order to assist managers in the use of the multi-year advice, advance notice of possible changes in stock status or productivity will require the development of specific indicators. Examples of possible indicators are:

- smolt return rates of 1SW and 2SW salmon
- overall returns to rivers as 2SW adults (Figure 2.6.1).
These indicators have not been fully explored and more work is needed to conclude on the relationships between indicator and variable of interest (e.g. PFA). In principal, return rates of smolts should be better indicators for the PFA state than the returns of salmon because they are corrected for smolt output.

The use of indicators to determine the abundance of salmon requires the development of an indicator framework which consists of: (1) a relationship between the indicator and the PFA and (2) an indicator trigger point that is related to a threshold PFA value (conservation limit). The decision rule would then be based on the indicator trigger point. The trigger point can be defined using past observations. The intention is to avoid false high states and false low states (Figure 2.6.2). A false high state may threaten conservation if fisheries were to proceed. A false low state would result in foregone harvest but would not threaten the resource. Thus the trigger point will need to balance the risk to the stock with the possibility of foregone harvest.

The decision rule in the indicator framework needs to be robust against measurement variability of the indicator (compliance rules). One year of positive indicators would be a risky basis for changing multi-year catch options. Compliance rules are used in salmon fisheries management in the UK (England and Wales).

A difficulty in developing indicator frameworks is that PFA histories for both NAC and the southern NEAC MSW stock complexes describe the movement from a high state to a low state, but there are no data on the movement from a low state to a high state. Atlantic salmon monitoring programmes across the North Atlantic which provide possible indicator variables should be continued and opportunities for initiating new monitoring programmes should be explored.

An example of an indicator framework based on the returns of 2SW salmon is shown in Figure 2.6.3. The returns of 2SW salmon were enumerated for a number of different rivers and the corresponding PFA state for that same year was assigned (high-low). The proportion of indicators that suggested a high PFA state was variable but when more than 50% of the indicators suggested a high PFA, the actual PFA abundance had been above the conservation limit (i.e. the threshold value).

### 2.7 Compilation of tag releases and finclip data by ICES member countries in 2005

Data on releases of tagged, fin-clipped, and otherwise marked salmon in 2005 were provided by ICES and are compiled as a separate report. A summary of tag releases is provided in Table 2.7.1.

### 2.8 Analysis of historic tagging data

With the recent focus on research on salmon at sea, ICES considered that there would be merit in examining historic data. Most countries in the North Atlantic have tagged large numbers of salmon at different life stages, but many of these data have not been properly analysed and published. ICES believes that analysis of this material will generate new information on the marine life history of salmon, for example the distribution of different stocks in time and space, migratory routes, migration speed and marine growth, and whether these have changed over time. Scale samples for these tagged fish might also enable investigation of scale microchemistry (e.g. trace elements/stable isotopes and genetic analyses). ICES therefore recommends that a workshop be held on the development and use of old tagging information from oceanic areas.
Table 2.1.1.1. Nominal catch of salmon by country (in tonnes round fresh weight), 1960–2005. (2005 figures include provisional data).

71


Table 2.1.1. continued

<table>
<thead>
<tr>
<th>Year</th>
<th>NAC Area</th>
<th>NEAC (N. Area)</th>
<th>Sweden (West)</th>
<th>NEAC (S. Area)</th>
<th>Faroes &amp; Greenland</th>
<th>Total Reported Catch</th>
<th>Unreported Catches</th>
</tr>
</thead>
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<tr>
<td></td>
<td>Canada</td>
<td>USA</td>
<td>St. Fkm</td>
<td>Norway</td>
<td>Russia</td>
<td>Ireland</td>
<td>UK (E&amp;W)</td>
</tr>
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<td>1</td>
<td>876</td>
<td>215</td>
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<td>1995-2004</td>
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<td>912</td>
<td>115</td>
<td>114</td>
<td>65</td>
</tr>
</tbody>
</table>

Key:
1. Includes estimates of some local sales, and, prior to 1984, by-catch.
2. Define 1966, not total and not catch included (5%) of total.
3. Figures from 1991 to 2005 do not include catch taken in the recently
developed recreational (rod) fishery.
4. From 1994, includes increased reporting of rod catches.
5. Catch on River Clyde allocated 50% Ireland and 50% N. Ireland.
7. Data for France include some unreported catches.
8. Weights estimated from mean weight of fish caught in Arhitr (60-90% of Spanish catch).
9. Catch data for 2005 not available at time of meeting, catch estimated as mean of previous 5 years.
10. Between 1991 & 1999, there was only a research fishery at Faroes. In 1995 & 1999 no fishery took place;
the commercial fishery resumed in 2005, but has not operated since 2001.
11. Includes catches made in the West Greenland area by Norway, Faroes,
12. Includes catches in Norwegian Sea by vessels from Denmark, Sweden, Germany, Norway and Finland.
13. Estimates refer to season ending in given year.
Table 2.7.1. Summary of Atlantic salmon tagged and marked in 2005 – ‘Hatchery’ and ‘Wild’ refer to smolts and parr; ‘Adults’ relates to both wild and hatchery-origin fish.

<table>
<thead>
<tr>
<th>Country</th>
<th>Origin</th>
<th>Runpostag</th>
<th>External mark</th>
<th>Adipose clip</th>
<th>PIT tag</th>
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<td></td>
<td></td>
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<td>126,352</td>
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<td>363,996</td>
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<td>175</td>
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<td>Total</td>
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<td>6,350</td>
<td>126,352</td>
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<td>UK (H. Iceland)</td>
<td>Hatchery</td>
<td>14,617</td>
<td>3,741</td>
<td>22,966</td>
<td>0</td>
<td>52,338</td>
</tr>
<tr>
<td></td>
<td>Wild</td>
<td>2,657</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adults</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16,684</td>
<td>3,741</td>
<td>22,966</td>
<td>0</td>
<td>52,338</td>
</tr>
<tr>
<td>UK (Scotland)</td>
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<td>1,290</td>
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<td>0</td>
<td>5,385</td>
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<tr>
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<td>Wild</td>
<td>2,689</td>
<td>1,150</td>
<td>450</td>
<td>7,842</td>
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</tr>
<tr>
<td></td>
<td>Adults</td>
<td>0</td>
<td>595</td>
<td>0</td>
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<tr>
<td></td>
<td>Total</td>
<td>9,095</td>
<td>3,036</td>
<td>450</td>
<td>7,842</td>
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<tr>
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<td>0</td>
<td>172,959</td>
<td>311,487</td>
<td>2,001</td>
<td>487,437</td>
</tr>
<tr>
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<td>453</td>
<td>513</td>
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<tr>
<td></td>
<td>Adults</td>
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<td>2,550</td>
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<td>2,550</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>0</td>
<td>176,579</td>
<td>311,487</td>
<td>2,001</td>
<td>492,232</td>
</tr>
<tr>
<td>All Countries</td>
<td>Hatchery</td>
<td>345,186</td>
<td>1,445,505</td>
<td>2,991</td>
<td>5,392,890</td>
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<td>31,323</td>
<td>34,289</td>
<td>23,988</td>
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<td>Adults</td>
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<td>19,537</td>
<td>1,531</td>
<td>16,401</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
<td>397,737</td>
<td>1,445,505</td>
<td>2,991</td>
<td>5,499,232</td>
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</tr>
</tbody>
</table>

1 The number of microtagged hatchery fish in Iceland includes 148,740 fish reared in sea-pens.
2 PIT tagged juveniles in Scotland also adipose fin-clipped.
3 Total numbers include internal tags.
Figure 2.1.1.1. Nominal catches of salmon (tonnes round fresh weight) in four North Atlantic regions, 1960-2005.

Figure 2.1.1.2. Percentages of nominal catch taken in coastal, estuarine, and riverine fisheries (1995–2005) for the NAC area and for the NEAC northern and southern areas.
Figure 2.2.1. World-wide production of farmed Atlantic salmon, 1980–2005.

Figure 2.2.2. Production of ranched Atlantic salmon (tonnes round fresh weight) as harvested at ranching facilities in the North Atlantic, 1980–2005.
Figure 2.6.1. Examples of indicators and their relationship with PFA reconstructed estimates from North America (top, middle) and NEAC (bottom).
Figure 2.6.2. Illustration of PFA threshold, potential indicator decision rule, and false high state and false low state zones used to objectively define the indicator decision rule relative to a value function that penalizes wrong assignments of PFA state, i.e. observations in either the false high state or false low state quadrats.
Figure 2.6.3. Assigning the state of PFA abundance for the years 1971 to 2004 using the returns of large/2SW salmon simultaneously for three to eight monitored rivers in North America.
6. NASCO has requested ICES to identify relevant data deficiencies, monitoring needs and research requirements taking into account NASCO's international Atlantic salmon research board's inventory of ongoing research relating to salmon mortality in the sea

6.1 Data deficiencies and research needs

Recommendations from Section 2 – Atlantic salmon in the North Atlantic Area:

1. ICES recommends that NASCO considers supporting the development of collaborative efforts to genetically characterize salmon stocks across the North Atlantic and the development or continuation of genetic sampling programmes for all mixed stock fisheries and populations contributing to mixed-stock fisheries.

2. ICES recommends that NASCO encourage all Parties to support the continuation of current monitoring programmes across the North Atlantic and encourage the development of opportunities for initiating new monitoring programmes.

3. ICES recommends that a workshop be organized to assemble and analyze historical tagging information to investigate trends in migration and marine distribution of Atlantic salmon at sea.

Recommendations from Section 3 – Fisheries and Stocks from the North East Atlantic Commission Area:

1. ICES recommends that non-catch mortality in relation to bycatch of Atlantic salmon at sea be evaluated.

Recommendations from Section 4 – Fisheries and Stocks from the North American Commission Area:

No recommendations from the North American Commission area.

Recommendations from Section 5 – Atlantic Salmon in the West Greenland Commission Area:

1. ICES recommends that the Home Rule Government of Greenland provides information on the extent of fishing activity by all license holders. Furthermore, it would be helpful if reports filled out by fishers offered the option to report date of catch and number of fishing nets.

2. ICES recommends that a broad geographic sampling program be undertaken (multiple NAFO divisions) to more accurately estimate continent of origin in the mixed-stock fishery.

3. ICES recommends that the Home Rule Government of Greenland improves the estimates of the annual catches of salmon taken for private sales and local consumption in Greenland.
Council

CNL(06)41

Scientific Advice from ICES – Assessing Genetic Effects

In the Request for Scientific Advice from ICES, adopted by the Council of NASCO at its Twenty-Second Annual Meeting in Vichy, France, CNL(05)12, ICES was requested *inter alia* to assess the genetic effects of the introgression of farmed Atlantic salmon on wild salmon populations. This paper contains the advice from ICES in response to this one question, and was presented at NASCO’s Twenty-Third Annual Meeting.
2.4 To assess the genetic effects of the introgression of farmed Atlantic salmon on wild salmon populations (ToRe)

This text was based on a working paper prepared by P. McGinnity and Eric Verspoor; adopted by WGAGFM at Newport, Ireland in 2006.

2.4.1 Introduction

Since its origin in 1969, salmon farming in the North Atlantic has increased production to c. 800,000 million tonnes in 2004, with Norway and Scotland being the major producers in Europe. NASCO (2005) reports that during the same period the international catch of Atlantic salmon has declined from the 10,000 tonnes reported in the 1960s to 2,100 tonnes in 2005. Currently in the order of 2 million salmon escape from salmon farms each year in the North Atlantic, which is equivalent to about 50% of the wild pre-fishery abundance of salmon in this ocean. Escaped farm salmon comprise some 20–40% of the salmon in some North Atlantic areas and rivers with over 80% in some Norwegian rivers (Ferguson et al., 2006). Farm salmon parr also escape from juvenile rearing units but the extent of this has been poorly studied.

Two decades of intensive research into the genetic impacts of farm escape salmon on natural populations has provided a substantial body of useful quantitative data. It is worth noting that this has been one of the best and most successful examples of the application of genetics in answering a difficult fisheries management question. For comprehensive reviews of this research, see Youngson and Verspoor (1998), Naylor et al., (2005), Ferguson et al., (2006), and most recently Hindar et al. (2006).

The objective of this paper is to briefly summarise the principal findings of twenty years of research into the genetic effects of the introgression of farmed Atlantic salmon on wild salmon populations, to report on attempts to incorporate the data arising from these studies into realistic life history impact models, to review some of the most recent research in the area, to summarise some of the implications of this research for the management of wild fisheries and to recommend useful avenues for future research.

2.4.2 Genetic impacts (taken directly from the summary presented in Ferguson et al., 2006 with permission of authors)

Farm salmon are genetically different from wild stocks due to geographical origin, founding effects, and as a result of deliberate and accidental selection, and genetic drift, during domestication. Many farm salmon differences can be related to selection for faster growth and later maturity together with inadvertent changes affecting survival, deformity, feed conversion rate, spawning time, morphology, aggression, egg viability, egg production, and risk-taking behaviour.

Escaped salmon enter rivers generally adjacent to the site of escape but sometimes at considerable distances. These fish have been shown to breed, and interbreed with wild fish,
although the greater reproductive success of farm females relative to males, and differences in behaviour, mean that more hybrids are produced than pure farm offspring.

Farm salmon have both indirect and direct genetic effects on wild populations. Indirect genetic effects occur due to behavioural, ecological, and disease interaction thereby reducing the effective population size of the wild population and increasing genetic drift. In particular competition with farm fish and hybrids, which are larger, can reduce wild smolt production. Direct genetic effects occur due to interbreeding with wild fish and backcrossing in subsequent generations.

Farm salmon offspring and hybrids show substantially reduced lifetime success with poorer survival in the early juvenile stages and again in the sea. This results in a loss of fitness (reduced recruitment) in individual wild populations. Since farm escapes are regular occurrences, such reductions in fitness are cumulative and potentially lead to an extinction vortex in ‘weak’ populations (i.e. on the verge of self-sustainability).

Hybridisation and introgression can change the performance characteristics in wild populations with, for example, an increase in multi-sea-winter salmon in otherwise predominantly grilse populations, which may be desirable from an angling perspective in such rivers. However, given their reduced lifetime success, ‘hybrids’ do not compensate for the loss of wild recruitment resulting in a decrease in fitness in the population.

Hybridisation and introgression due to backcrossing will result in gene flow from farm to wild. As only a few farm strains are used throughout the industry, this gene flow will reduce the natural interpopulation heterogeneity found in Atlantic salmon, thereby reducing the adaptive potential of the species.

Genetically modified (transgenic) salmon would be expected to result in the same genetic effects as non-modified ones, both with respect to changes in genetic structure and with respect to fitness. However, the negative impact on fitness is likely to be even greater.

2.4.3 Incorporating data into life history models

Experimental studies confirm that in at least some situations escaped farm salmon can have major negative impacts on wild populations. However, the experimental work is confined to only a few of the potential escape interaction scenarios which are likely to exist. As such existing information is still inadequate for providing robust scientific information on the management of farm escapes in many situations. In light of the length of time and cost of undertaking experimental studies of a range of escape scenarios, the only realistic way forward is to develop predicative models which allow for risk assessment across the range if escape scenarios which could be expected to be encountered. This could range from a few farm escapes interbreeding with a large healthy population, in which case it would be unlikely that there would be a large negative impact, to a situation where you have a large continuous input into a small depressed population. Furthermore, in light of the fact that we know that farm escapes have this negative impact, the political will to support studies where we are deliberately releasing farm fish into control situations on a wide-scale is unlikely to be there and justifiably so. This means that the only realistic way forward to progress understanding and assess risk is through computer-based modelling of the data that has already been collected or that will collected in the future from a few dedicated facilities. In the case of Atlantic salmon this is a very real option because of the detailed understanding
that already exists regarding the population dynamics of wild populations and the good understanding of the genetic implications of the interbreeding of farm and wild fish. Furthermore, in recent years theoretical geneticists have begun to develop realistic multilocus models of genetic structuring in populations (hybrid zone scenarios, etc.).

A recent example of the potential of modelling is Hindar et al., (in press) where they provide a quantitative picture of the rapid change likely to occur in many wild populations as a consequence of farm escapes. Based on data from spawning and whole-river experiments, they model the future of wild salmon populations experiencing invasions of escaped farm salmon. Simulations with a fixed intrusion rate of 20% farm escapes at spawning suggest that substantial changes take place in wild populations within ten salmon generations. Low-invasion scenarios suggest that farm offspring are unlikely to establish in the population, whereas high-invasion scenarios suggest that populations are eventually composed of hybrid and farm descendants. Recovery of the wild population is not likely under all circumstances, even after many decades of no further escapes. They also observe that managers of wild fish will have problems finding broodstock of the original wild population after a few generations of high intrusion rates.

A recent initiative to examine the scope for modeling and the ways forward has been put in place as part of the recently funded EU GENIMPACT community action where a workshop will review this issue. The workshop will bring together researchers working on farm wild interactions in a range of European aquaculture species with modelers attempting to identify the key research questions and the most optimum approach to answering questions and also to develop research initiatives for future EU funding. For example, from the work of Hindar et al. (2006), as well as others (Gilbey et al., in prep; Bacon et al., unpublished) have identified density-dependent factors as being critical in providing realistic outputs from these models. Furthermore, it is clear that the genetic model used also is critically important in determining the predictive power of these models.

2.4.4 Update of most recent research

Evolutionary change in farmed populations

Roberge et al. (2006) compared the transcription profiles of 3,557 genes in the progeny of farmed and wild salmon from Norway and Canada grown in control conditions and showed that five to seven generations of artificial selection led to heritable changes in gene transcription profiles (see Box 1), the average magnitude of the differences being 25% and 18% for at least 1.4% and 1.7% of the expressed genes in juvenile salmon from Norway and Canada, respectively. Remarkably, genes showing significant transcription profile differences in both farmed strains all exhibited parallel changes. The authors of this paper suggest that these findings, along with the identification of several genes whose expression profiles were modified through artificial selection, suggest how gene flow from farm escapes may affect the genetic integrity of wild populations. It also suggests that we are closer to understanding the specific genetic differences between farmed and wild stocks that are responsible for the fitness differences seen in the wild that arise due to selective breeding and domestication. Once these are understood this information can be used to provide more realistic genetic models of interactions, which can be used in modelling exercises.
Potential for indirect genetic effects of farm escapes on natural salmon populations

While direct genetic effects of introgression between wild and hatchery-reared salmon have been demonstrated (McGinnity et al., 2003), the impact of diseases originating from aquaculture (Hástein and Lindstad, 1991; Johnsen and Jensen, 1994; McVicar, 1997) on the genetic integrity of wild fish has not been addressed (E. deEyto, Marine Institute, Ireland, unpublished) compared genotype frequencies of Atlantic salmon (Salmo salar) surviving in a natural river six months after their introduction as eggs with frequencies expected from parental crosses. In order to distinguish between natural selection and other forces that might impact on genetic variation, they included eight putatively neutral microsatellite loci in the analysis as controls as well as immunogenetic loci (see Box 2) from both MHC class I and class II. They found that Atlantic salmon MHC class II alpha genes were under selection in the wild, while the MHC class I-linked microsatellite or at eight non-MHC-linked microsatellite loci were not. They concluded that selection at the MHC class II locus was a result of an immune response, rather than any demographic event. They also showed that survival was associated with additive allelic effects rather than heterozygote advantage at the MHC class II locus. These results have implications for both the conservation of wild salmon stocks, and also the susceptibility of hatchery fish to disease. The authors concluded that natural or hatchery populations have the best chance of dealing with episodic and variable disease challenges if MHC genetic variation is preserved both among and within populations.

Indirect genetic effects on co-occurring wild sea trout

Several studies have documented the genetic effects of intra-specific hybridisation of reared and wild Atlantic salmon, most notably Youngson et al., 1993. However, the effects of salmon aquaculture on wild congeners are less well understood. It is possible that diseases, introduced or increased in incidence by salmon aquaculture activities, have the potential to impact co-occurring wild sea trout (Salmo trutta L.). Coughlan et al., (in press) have recently presented data that suggests that salmon farming and ocean ranching can have an indirect genetic effect (most likely mediated by disease) on cohabiting sea trout by reducing variability at major histocompatibility class I genes. Samples of DNA extracted from scales taken from sea trout in the Burrishoole River, in the west of Ireland, before and at intervals during aquaculture activities, were investigated. In these samples allelic variation at a microsatellite marker tightly linked to a locus critical to immune response (Satr-UBA) was compared with variation at six neutral microsatellite loci. A significant decline in allelic richness and gene diversity at the Satr-UBA marker locus, that was observed since aquaculture started (and which may be an indication of a selective response), was not reflected by similar reductions at neutral loci.

2.4.5 Management considerations (taken directly from Ferguson et al., 2006)

1 The Guidelines on Containment of Farm Salmon, developed by the North Atlantic Farming Industry and the North Atlantic Salmon Conservation Organization (NASCO) should be the minimum standard for the construction and operation of fish farms. Research into further improving both technological and operation standards should be undertaken.

2 Smolt rearing units should not outflow into salmon rivers (as already required in Norway).
3 Marine cages should not be situated within 30km of salmon rivers.

4 Where escapes occur, appropriate recovery plans and resources should be available for immediate deployment.

5 Further investigations in the use of triploids and other bioconfinement methods should be undertaken.

6 If it is intended to introduce sterile transgenic salmon in the industry in the future, research should be undertaken, prior to permission being granted, to determine the ecological impact that such fish may have on wild populations.

Additional recommendations

7 Building of realistic working simulation models, which can be used to assess risks of direct genetic interactions, which can be used to identify research priorities.

8 Research into indirect genetic and ecological impacts associated with issues such as introduction disease and effects of density-dependent population dynamics.

9 Spatial and temporal studies.

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**Box 1**

Transcription profiles are the direct intensity measurements of “gene expression” levels for individual genes using DNA “micro-array” technology. “Gene expression” is the term used to describe the transcription of the information contained within the DNA, the repository of genetic information, into messenger RNA (mRNA) molecules that are then translated into the proteins that perform most of the critical functions of cells. A DNA “micro-array” is a tool for analysing gene expression that consists of a small membrane or glass slide containing samples of many genes arranged in a regular pattern. It works by exploiting the ability of a given mRNA molecule to bind specifically to, or hybridise to, the DNA template from which it originated. By using an array containing many DNA samples the expression levels of hundreds or thousands of genes within a cell can be determined simultaneously in a single experiment by measuring the amount of mRNA bound to each site on the array. With the aid of a computer the amount of mRNA bound to the spots on the microarray is precisely measured, generating a profile of gene expression in the cell.

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**Box 2**

The genes of the major histocompatibility complex (MHC) encode proteins that play a crucial role in the vertebrate immune response and several lines of evidence suggest that MHC variability is maintained by pathogen-driven balancing selection.
2.4.6 References


Council

CNL(06)8

Catch Statistics - Returns by the Parties
Under Article 12 of the Convention, the Secretary shall compile and disseminate statistics and reports concerning the salmon stocks subject to the Convention.

1. The Official Catch Statistics, as submitted by the Parties, are tabulated overleaf in Table 1. (The figures for 2005 are provisional). Table 2 presents catch statistics for the period 1960-2005 by Party to the NASCO Convention.

2. The total provisional declared catch of 2,117 tonnes in 2005 by NASCO Parties is approximately 1% lower than the confirmed catch in 2004 (2,150 tonnes) and, if confirmed, will be the lowest catch in the forty-six-year period of record. However, there have been major reductions in fishing effort all around the North Atlantic. In addition, catch and release of wild salmon is becoming increasingly significant but these “catches” are not included in these statistics (see CNL(06)10). Therefore, these catch data should not be used as a measure of abundance. A report on the status of the stocks in 2005 is contained in the ACFM report from ICES (document CNL(06)7).

3. For the 2005 catch data, there is a 7 tonne discrepancy in the combined statistics for the North Atlantic region provided to NASCO by its Parties (2,117 tonnes) and those provided by ICES (2,110 tonnes). The difference is due to the catch of 3 tonnes for St Pierre and Miquelon and because the catches reported to NASCO for Canada, EU - Spain and EU - Denmark (130, 15 and 8 tonnes, respectively) are slightly higher than the figures in the ICES statistics (129, 9 and 5 tonnes, respectively).

4. These catch statistics, which have been rounded to the nearest tonne, will be used to calculate the contributions to NASCO for 2007 and the adjustment to the 2006 contributions (in the light of the confirmed 2004 catches) unless the Secretary is advised otherwise.

5. A further, more detailed, record of catch statistics during the period 1960-2005 is provided in paper CNL(06)9.

Secretary
Edinburgh
8 May 2006
Table 1: Official Catch Statistics

<table>
<thead>
<tr>
<th>Country</th>
<th>Provisional 2005 Catch (Tonnes)</th>
<th>Provisional 2005 Catch according to Sea Age</th>
<th>Confirmed 2004 Catch (Tonnes)</th>
</tr>
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<tr>
<td></td>
<td>Total No</td>
<td>Total Wt</td>
<td>1SW No</td>
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<tr>
<td>Canada *</td>
<td>130</td>
<td>73.4</td>
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<td>Denmark (in respect of Faroe Islands and Greenland) **</td>
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<td>Greenland</td>
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<td>European Union**</td>
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</table>

* The breakdown of the Canadian catch is into the categories small (shown under 1SW) and large (shown under MSW) salmon.
** Breakdown of the catch by number and weight according to sea age is available for some EU Member States.
Table 2: Catches of Atlantic Salmon by the Parties to the NASCO Convention

<table>
<thead>
<tr>
<th>Year</th>
<th>Canada</th>
<th>Denmark (Faroe Islands and Greenland)</th>
<th>European Union</th>
<th>Finland</th>
<th>Iceland</th>
<th>Norway</th>
<th>Russian Federation</th>
<th>Sweden</th>
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<td>2276</td>
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1. The European Union catch from 1995 includes the catches by Finland and Sweden. 2. The catch for Denmark (in respect of the Faroe Islands and Greenland) includes the catch for Greenland when it was a member of the European Union and the catches up to 1983 by Denmark. 3. Figures from 1986 are the official catch returns to NASCO. Figures to 1986 are based on data contained in the ICES Working Group Reports. 4. The Faroese fishery was subject to compensation arrangements in the period 1991-1998. The West Greenland fishery was subject to compensation arrangements in 1993, 1994, 2002, 2003, 2004 and 2005. Under the compensation arrangements from 2002 a subsistence fishery is permitted.
Council

CNL(06)37

Results from Research Vessel Survey in the Labrador Sea, Fall 2005 (tabled by Canada)
Results from research vessel survey in the Labrador Sea, fall 2005

Dave Reddin
Dept of Fisheries & Oceans
St. John’s, Newfoundland

SUMMARY OF SALMON RESEARCH IN NW ATLANTIC

• Canadian/Danish studies 1965-85 in Greenland/Labrador Sea
• Grand Banks studies 1979-80
• Postsmolt salmon distribution 1987, 1989 & 1991
• 1999/2001 Research cruise to Labrador Sea
• 2005 Fall cruise with Norwegian trawl

Objectives

• Use of postsmolt trawl developed in Norway in the Labrador Sea
• Preparatory work for SALESA
Departure on the Last Salmon Research Trip

RV Wilfred Templeman
Fishing Plan

• Initial fishing days = 20
• Search & rescue = - 5 days
• Re-Allocation to scallop work for St. Pierre = -5 days
• Bad weather = - 2 days

Labrador Sea
Not Always Hospitable

Restraints
SUMMARY

• What have we learned from the fall survey?
  • Disease survey results
    » 2001 and 2005
    » ~ 90 specimens in total examined for viral fish pathogens
    » No viral pathogens detected
    » Samples were negative for ISAV & VHSV

• What was in the trawl?
  – Trawl results
    – Only one postsmolt caught in 9 trawls
      » One caught was at night
    – Eleven adults & 37 postsmolts were caught in gillnets
    – Trawl was working as other species were caught
      » Saury, mackerel, lantern fish, jelly fish, squid and amphipods
      » Recommend a bigger/faster ship be used for SALSEA or pair trawling with smaller vessels
5 June 2006, Hotel Riekonlinna, Saariselkä, Finland

1. Opening of the meeting

1.1 The Chairman, Mr Jacque Robichaud, opened the meeting and welcomed Members of the Board, their scientific advisers and representatives of the accredited NGOs to Saariselkä. He referred to the progress made to date by the Board in establishing an inventory of research, improving coordination of existing research programmes funded by the Parties and their partners which, in total, involve expenditure in excess of £5.1 million, and in adopting the SALSEA programme. The key focus now for the Board is to agree approaches to raising the significant funds required to implement the SALSEA programme. In that regard, he believed the Board was at a crossroads.

1.2 A list of participants is contained in Annex 1.

2. Adoption of the agenda

2.1 The Board adopted its agenda, ICR(06)8 (Annex 2).

3. Inventory of Research

3.1 At its inaugural meeting the Board had developed an inventory of research relating to salmon mortality at sea, ICR(01)05, which had been updated in 2002, CNL(02)21, in 2003, ICR(03)3, in 2004, ICR(04)3 and ICR(04)6, in 2005, ICR(05)3 and ICR(05)10, and again in 2006, ICR(06)2. A summary of the updated inventory had been made available to the ICES Working Group on North Atlantic Salmon for information purposes so as to assist it in identifying data deficiencies, monitoring needs and research requirements. The inventory had also been reviewed by the Board’s Scientific Advisory Group (SAG) to assist it in identifying gaps in research and research priorities and to develop recommendations for enhanced coordination of existing research.

3.2 The Assistant Secretary made a brief presentation on the inventory. He noted that maintenance of this inventory is required under the Board’s Rules of Procedure and is considered an essential tool in identifying research gaps and priorities and in improving coordination of existing research. It is also important in demonstrating to potential funders the extent of existing commitments by the Parties and the nature of the ongoing research programmes. As requested by the Board at its last meeting, a number of changes had been made to the presentation of this information, including allocation of ongoing projects to the relevant Work Package of the SALSEA programme. The updated inventory includes a total of 50 ongoing projects. Since last year, 9 projects had been completed and 9 new projects added. As agreed by the Board at its last meeting, the ongoing projects for which no updated information had
been provided had been included in the ‘completed projects’ section following consultations between the Secretariat and the Board member concerned. The total annual expenditure on the ongoing projects included in the inventory amounts to about £5.1 million, a reduction of about 13% compared to 2005. No costings were available for 4 of the projects. Two new projects had been included in the inventory that are of particular relevance to the SALSEA programme as they involve development of genetic baseline information of salmon stocks in Ireland and Norway. He advised the Board that the inventory had been thoroughly reviewed by the Scientific Advisory Group which had developed a number of recommendations which would be presented by the Group’s Chairman.


4.1 The report of the fourth meeting of the Board’s Scientific Advisory Group (SAG) was presented by its Chairman, Dr Lars Petter Hansen (Norway), SAG(06)7 (Annex 3). The Group had reviewed the updated inventory of research, considered a progress report on the SALSEA programme, identified possible topics for funding by the Board, and developed a matrix of timelines and costings for the components of the SALSEA programme based on various funding scenarios. In the light of the recommendations from the SAG, the Board took the following decisions:

(a) in the event that ICES organizes a Workshop to assemble and analyse historical tagging information to investigate trends in migration and marine distribution of salmon at sea, the Board should propose to ICES that it would be willing to support participation at the Workshop by a small number of experts, particularly oceanographers and experts in Geographic Information Systems. The Board agreed to allocate up to £5,000 to support this Workshop;

(b) to invite the coordinators of the SALMAN initiative, Dr Eric Verspoor (Scotland) and Dr Timothy King (USA), to provide a report updating the Board on progress with the SALMAN initiative and providing proposals for genetic stock identification work of relevance to the SALSEA programme that might be supported by the Board. The Board decided not to specify the level of expenditure at this stage;

(c) to invite Dr Kevin Friedland (USA) to report to the Board on information relevant to marine mortality of salmon that can be derived from scale analysis, the availability of appropriate data sets and what research might be undertaken in future in support of the SALSEA programme. The Board agreed that production of this report was of a lower priority than the projects identified in paragraphs (a) and (b) above. The Board agreed to allocate up to £10,000 for the production of this report.

4.2 The Board asked that the Secretariat liaise with the Chairman of the SAG in taking forward the initiatives identified in paragraphs (a) to (c) above.

4.3 The Board agreed that the Parties should be given an opportunity to provide any additional information to the Secretariat by 30 June for inclusion in the inventory and that after that date the inventory should be made available on the Board’s website.
4.4 The Board welcomed the detailed timelines and costings for implementing different components of the SALSEA programme based on various funding scenarios being available which had been developed by the SAG.

4.5 The Board thanked Dr Hansen for his report and the work of the Scientific Advisory Group.

5. The SALSEA Programme

(a) Progress Report

5.1 At its last meeting the Board had fully endorsed the SALSEA programme, a comprehensive mix of freshwater, estuarine, coastal and offshore research. The Board had noted that full implementation of the offshore element would require funds of approximately £7.8 million or £10.5 million, depending on whether there are two or three years of research cruises. It was recognised that funding for the SALSEA programme could either be raised from NASCO Parties or through a fund-raising initiative including public/private partnerships. The Board had agreed that the immediate next steps should be to:

- arrange for a peer review of the SALSEA programme. Drs Jack Helle (USA) and Dick Beamish (Canada), both of whom have extensive experience of research on Pacific salmon, were identified as possible reviewers;

- arrange for further communication of the SALSEA programme to ICES to raise awareness of the programme and to seek support for, and feedback on, the programme from scientists working on diadromous fish, and from the broader community of marine scientists in relation to SALSEA’s relevance to the ecosystem approach;

- correct and update the SALSEA programme in the light of any feedback received from the reviewers.

5.2 The Secretary introduced document ICR(06)3 (Annex 4) which includes a review of the SALSEA programme by Dr Beamish. In summary, Dr Beamish had responded positively about the programme and had noted the similarity to marine survival issues for salmon in the Pacific. He had indicated his support for the marine survey, particularly when combined with genetic stock identification and a comprehensive disease assessment programme. Dr Beamish had suggested that there might be benefits from the establishment of a small international team of scientists studying the basic mechanisms regulating salmon populations in the North Pacific and North Atlantic Oceans.

5.3 The Board noted in the report of the SAG that Dr Niall Ó Maoiléidigh had also raised awareness of the SALSEA programme in ICES and the feedback had also been positive. The Board expressed its appreciation to Dr Ó Maoiléidigh for his assistance.

5.4 The Board welcomed the positive feedback from Dr Beamish and ICES and noted that no revision to the programme was required in the light of the comments received. The Board noted that in 2003 NASCO had held a successful joint meeting with ICES, PICES, NPAFC and IBSFC on factors influencing the mortality of salmon in the sea.
The Secretary indicated that NPAFC are keen to hold a major joint international symposium on this topic in 2008 or 2009 to allow for a further exchange of information between researchers in the North Pacific and North Atlantic Oceans. The Board asked that the Secretary liaise with NPAFC on the arrangements for such a meeting and report back to the Board following the annual meeting of NPAFC in October.

5.5 The Board also agreed that there could be benefits from a small meeting of scientists studying the mechanisms regulating salmon populations in the North Pacific and North Atlantic Oceans and asked that Mr Beaupré (Canada) liaise with Dr Beamish on arrangements for such a meeting, which it is hoped might be held in 2007.

(b) Future actions

5.6 Consistent with Work Package 4, Task 1, of the SALSEA programme, the Board developed and adopted a proposal for the way forward to promote the SALSEA programme and its realization. The Board will:

1. establish immediately a Steering Committee reporting to the Board composed of 5 NGOs/5 Board representatives and the Secretary to assist in the implementation of this critical initiative;

2. start immediately the search for a Project Director, i.e. Mr/Ms SALSEA, who will be approved by the Board. For the time being the NASCO President will continue in this capacity;

3. obtain professional expertise to produce, with the Steering Committee, the case for support and marketing package. It will highlight the importance of research on salmon at sea and the unique opportunity for international collaboration and cooperation;

4. this summer and early fall, the NASCO President, with professional support, will seek some early buy-in and contributions;

5. request the SAG to deliver a comprehensive package highlighting all cruises over years 2008 and 2009. (This will include timelines, spatial coverage, cost breakdown, etc.);

6. request Parties to ensure access to vessel time is given higher priority for 2008/2009, to realize SALSEA:

7. the Board will set aside £40,000 for the remainder of 2006 and £20,000 for 2007 towards the Work Package 4, Communications.

6. The search for new funds

6.1 At its last meeting the Board had received a report, ICR(05)8, from Brakeley Consultants, who had been engaged to develop a fund-raising strategy. This report had concluded that in the SALSEA programme, the Board had a positive and urgent case, with objectives that meet this urgency, and wide potential sources of funding. However, the consultants had concluded *inter alia* that there was limited potential to
raise money with the current structure of the Board, that the target of £7.5 million was too high, and that additional government funding would be essential as leverage for funding from the private sector. They had, therefore, recommended that, as the next steps, additional funding of £4 million should be sought from NASCO’s Parties and that a professionally managed fund-raising programme should be initiated with the objective of raising £4 million over a five-year period. The Board had agreed that the first step should be to fully review the report from Brakeley Consultants and to coordinate views from the Board Members on the way forward with regard to the fund-raising approach. The Board had recognised that it would be desirable to use professional expertise in any fund-raising initiative rather than employing a staff member in the Secretariat, and that the consultants’ role would be to identify possible sources of funding, develop relationships with potential funders and then make introductions so that representatives of the Board could present the SALSEA programme to them.

6.2 Following the Board’s 2005 meeting, Brakeley’s had developed a proposal for fund-raising from the private sector. Following consultations with the Chairman, the Secretary had written to members of the Board on 25 August 2005 asking for responses to the following two questions:

- are you able and willing to contribute a share of a total of about £4 million (in cash or new resources) over the next five years, i.e. your share of about £800,000 per year?

- are you able and willing to contribute a share of a total of about £350,000 over about three years to develop a fund-raising capability to the point where funds are, hopefully, flowing in?

6.3 A further question was posed about appropriate approaches to sharing the costs. The Secretary introduced document ICR(06)4 (Annex 5) which detailed the responses from the Parties to these questions.

6.4 The Chairman introduced Mr William Conner, Brakeley Consultants, who presented a summary of the feasibility study and the fund-raising strategy. He indicated that the next steps would be to define the public/private partnership, for the IASRB to enlist people who can deliver, for the NGOs to be integrated into the strategy and for a communication programme to be implemented. In order to start fund-raising, he suggested that £100,000 be allocated by the Board which it would be hoped could be paid back from early receipts. There would then be a need to create a steering committee to drive the fund-raising and to agree a case for support. There should be a quarterly review of fund-raising progress. He stressed that the success of the fund-raising would be dependent on the involvement of NGOs who would bring credibility to the project and could speed up the fund-raising process and thereby reduce the costs.

6.5 The Board recognized that fund-raising is only one component of a larger package of actions required to provide leadership in the realization of the SALSEA programme. The approach adopted by the Board to promote SALSEA is detailed in paragraph 5.6.

6.6 The Board noted that there had been discussions between the Secretary and President of NASCO and the Research Directorate General of the European Commission in
relation to possible funding under the EU Seventh Framework Programme. The Board fully supported this initiative and saw it as a vital component for implementing the Work Package on oceanic distribution and migration. The Board was also advised that the President had been invited to attend an ASF Board meeting to present the SALSEA programme. Following this meeting, ASF had adopted a resolution pledging support for, and participation in, the SALSEA programme, including taking advocacy action and coordinating its research activities within the scope of the SALSEA programme. The Board greatly welcomed this support in promoting the SALSEA programme.

6.7 The Chairman indicated that the Board is always open to further contributions by the Parties.

7. Finance and administrative issues

7.1 Under Rule 14 of the Board’s Rules of Procedure, it is stated that the Rules of Procedure “may be subject to review by the Council of NASCO at any time and should be reviewed no later than 2005”. Since their adoption in 2001 the Rules of Procedure have not been reviewed or amended other than to reflect the change in name of the Board to the International Atlantic Salmon Research Board. At its last meeting, the Board noted that there had been some changes to the Rules such as those concerning NGO participation in its meetings which needed to be reflected in the Rules of Procedure and that further changes might be needed, and agreed that the rules should be reviewed more thoroughly at its 2006 meeting. The Secretary introduced document ICR(06)5 which included proposals for changes to reflect the establishment of the Board’s Scientific Advisory Group and to reflect the Board’s decision to allow NGO participation in its meetings and those of its Scientific Advisory Group. The Board adopted the revised Rules of Procedure unchanged, ICR(06)10 (Annex 6).

7.2 The Secretary reported that, in accordance with the Board’s decision in 2005, the financial statements for the year to 31 December 2005, ICR(06)6, had been audited by the auditors to NASCO and sent to all Members of the Board. At the end of 2005 the fund balance stood at approximately £103,000. However, the Board had agreed to contribute £60,000 of these funds to further promoting the SALSEA programme, and the international symposium with NPAFC might require funding of around £28,000. The project work identified in paragraphs 4.1(a)-(c) could involve further expenditure of more than £15,000 if implemented.

7.3 The Board adopted the 2005 audited accounts. The Board recognized that there were significant costs in having the accounts audited annually and agreed that, in future, the Board’s accounts should be audited every two years commencing with the 2007 financial statements. For years in which an audit is not conducted, details of the Board’s expenditures and finances will be circulated to the members of the Board and discussed at its annual meeting.

8. Other business

8.1 There was no other business.
9. **Report of the meeting**

9.1 The Board agreed the report of its meeting.

10. **Date and place of next meeting**

10.1 The Board will agree the date and place of its next meeting by correspondence.

10.2 The Chairman thanked participants for their contributions and closed the meeting.
Annex 1 of CNL(06)11

List of Participants

Chairman of the Board

Mr Jacques Robichaud

Canada

Mr Guy Beaupré
Mr Gerald Chaput
Mr David Meerburg
Mr Tim Young
Mr Bud Bird

Denmark (in respect of the Faroe Islands and Greenland)

Ms Mira Ann Kalsi
Dr Jan Arge Jacobsen

European Union

Mr Ted Potter
Mr David Dunkley

Iceland

Mr Arni Isaksson
Mr Atli Mar Ingolfsson

Norway

Mr Arne Eggereide
Mr Raoul Bierach
Dr Lars Petter Hansen

Russian Federation

Dr Boris Prischepa
Dr Svetlana Krylova
Ms Elena Samoylova

USA

Mr Pat Scida
Mr Tim Sheehan
Mr Andrew Goode
Dr Alexandra Curtis
Non-Government Organizations

Mr Chris Poupard
Mr Niall Greene

Secretariat

Dr Malcolm Windsor
Dr Peter Hutchinson

Brakeley Consultants

Mr William Conner
ICR(06)8

Fifth Meeting of the International Atlantic Salmon Research Board

Hotel Riekonlinna, Saariselkä, Finland
Monday 5 June, 2006

Agenda

1. Opening of the meeting
2. Adoption of the agenda
3. Inventory of Research
5. The SALSEA Programme
   (a) Progress report
   (b) Future actions
6. The search for new funds
   (a) Progress report on a fund-raising strategy
   (b) Future actions
7. Finance and administrative issues
8. Other business
9. Report of the meeting
10. Date and place of next meeting
SAG(06)7

Report of the Fourth Meeting of the Scientific Advisory Group of the International Atlantic Salmon Research Board

Hotel Riekonlinna, Saariselkä, Finland
Sunday 4 June 2006

1. Opening of the Meeting

1.1 The Assistant Secretary opened the meeting and welcomed members of the Scientific Advisory Group (SAG) to Saariselkä. He advised the group that Dr Malcolm Beveridge (European Union) had taken up a new posting and was unable to continue as Chairman of the SAG and there would, therefore, need to be an election to appoint a new Chairman.

1.2 A list of participants is contained in Annex 1.

2. Election of Chairman

2.1 The SAG unanimously elected Dr Lars Petter Hansen (Norway) as Chairman.

3. Adoption of the Agenda

3.1 The SAG adopted its agenda, SAG(06)6 (Annex 2).

4. Review of the updated inventory of research and recommendations for enhanced coordination of research

4.1 The Assistant Secretary provided an overview of the updated inventory of research relating to salmon mortality in the sea, ICR(06)2, which is considered by the Board to be an essential tool in identifying research gaps and priorities and in improving coordination of existing research. For 2006, 50 ongoing projects had been included in the inventory and the annual expenditure on these projects was approximately £5.1 million, although no costings had been provided for 4 projects. Where the information had been provided by the Parties, details of collaboration between public and private organizations, and a breakdown of the funding of these projects, had been included in the inventory. Since the last update, 9 new projects had been included in the inventory and 9 projects had been completed. In addition, two US projects formerly contained in the inventory had been removed completely because the US had advised that they were not relevant to marine mortality of salmon.

4.2 As agreed by the Board at its last meeting, projects that had not been updated had been removed from the list of ongoing projects following consultation between the Secretariat and the Board Member concerned.
4.3 As requested by the Board, the Secretariat had requested details of the sampling programme at St Pierre and Miquelon from the French authorities for inclusion in the inventory but no response had been received to date.

4.4 At its last meeting, the Board had asked that the Secretariat allocate ongoing projects to the Work Package and Task in the SALSEA programme to which they relate, so that those areas of the programme which are already being addressed, at least in part, through ongoing research, and gaps in the SALSEA programme, could be identified. The information is presented in Table 3 of the updated inventory. New projects of relevance to the SALSEA programme include genetic studies in Ireland and Norway which will contribute to the development of a baseline or genetic atlas of stocks to facilitate genetic stock identification of salmon caught in research cruises at sea, if these cruises can be funded. Two projects of particular relevance to the offshore element of the SALSEA programme had been completed in 2005. The first project involved collaborative trials of trawl gear conducted by Scotland and Norway. The second involved research cruises for salmon in the Labrador Sea by Canada. The SAG recommends that, in future, Table 3 in the inventory should not provide a comparison of expenditure on ongoing projects with that envisaged under the SALSEA programme because the values provided are not directly comparable and goals of the research may differ.

4.5 The SAG noted that research vessel fleets were being rationalized in several countries with the expectation of replacing older vessels with fewer, but larger, vessels. Given existing commitments of the remaining vessels, obtaining research vessel time for salmon work may be more difficult in future.

4.6 The SAG noted that there is only one ongoing study concerned with the development of methods. However, the Group was advised that Cefas (UK) has recently developed a new large-memory (8 Mbit) data storage tag that is small enough to be used on the largest smolts (1g in water). This development was not specifically related to tagging salmon and had not, therefore, been included in the inventory.

4.7 The SAG was also advised of a project involving the deliberate release of externally tagged farmed salmon involving collaboration between Scotland and Norway intended to improve understanding of the migration and fate of escaped farmed salmon. The Group believed that details of this project should be included in the inventory. The Group recognized that there was a number of activities being conducted which collect data of interest to Atlantic salmon marine dynamics, but which are not documented in the inventory. The absence of these projects relates to the focus of these studies which are not directly related to salmon and it would be difficult to capture all the activities and their costs. Knowledge of these projects would be important to the implementation team of SALSEA but are beyond the capacity of IASRB to document completely.

4.8 The Group noted that the inventory is made available on the Board’s website and to the ICES Working Group on North Atlantic Salmon to assist it in identifying data deficiencies, monitoring needs and research requirements. However, the group agreed that efforts should be made to better communicate the valuable information in the inventory to researchers and to NASCO’s accredited NGOs. The Group believed that it would be valuable to consult the Chairman of the NGOs to seek feedback from the NGO group on whether or not they found the inventory useful. The Group also
agreed that a brief overview of the inventory should be presented to the Board at its meetings. The SAG recommends that the Board Members make efforts to distribute the inventory to scientists involved with research on salmon at sea in their countries.

4.9 The SAG noted that for some Parties long-term monitoring programmes of smolt survival in a number of rivers are collated and presented as a single project in the inventory while other Parties present projects on individual rivers separately. The Group agreed that each Party or jurisdiction should be requested to present such studies as a single project for inclusion in the inventory when it is next updated.

4.10 The Group agreed that it is useful to include information on both ongoing projects and completed projects in the inventory.

4.11 The SAG recommends that the Parties be given an opportunity to provide any additional information to the Secretariat by 30 June for inclusion in the inventory, and that, thereafter, the inventory should be made available on the Board’s website.

5. The SALSEA Programme

(a) Progress Report

5.1 At its 2005 meeting, the Board had fully endorsed the SALSEA programme and had noted that its implementation would require funds of approximately £7.8 million to £10.5 million, depending on whether there are two or three years of research cruises. The Board had agreed to arrange for a peer review of the SALSEA programme and the Chairman was asked to write to Drs Helle (US) and Beamish (Canada), both of whom have extensive experience of research on Pacific salmon, inviting them to review the SALSEA programme.

5.2 The Assistant Secretary referred to document ICR(06)3 which indicated that a response had been received from Dr Beamish but not, to date, from Dr Helle. Dr Beamish had indicated his support for the marine survey, particularly when combined with genetic stock identification and a comprehensive disease assessment programme. He had suggested that while there are numerous sources of mortality he believed there had to be a fundamental mechanism regulating carrying capacity. He had also suggested that there might be benefits from the establishment of a small international team of people studying the basic mechanisms regulating salmon populations. The SAG welcomed this support for the SALSEA programme, but noted, however, that in the Pacific Ocean salmon are the dominant pelagic fish species. This is not the case in the North Atlantic Ocean and there have been enormous increases in the biomass of pelagic species such as herring and blue whiting in recent years. The SAG considered that any changes in ocean carrying capacity in the North Atlantic may not be related to intra-specific competition and agreed that it would be valuable if ICES was requested to provide information on trophic dynamics of salmon and their implications for mortality of salmon at sea.

5.3 The SAG noted that the Board is being asked to consider supporting a joint symposium with the North Pacific Anadromous Fish Commission in 2008 or 2009 to allow for a further exchange of information between researchers in the North Pacific and North Atlantic Oceans on issues concerning marine mortality of salmon. The
5.4 The Board had also asked that the SALSEA programme be communicated to ICES to raise awareness of the programme and to seek support for, and feedback on, the programme from ICES’ community of marine scientists in relation to SALSEA’s relevance to the ecosystem approach. Dr Niall O’Maoileidigh (EU) had agreed to make appropriate arrangements in ICES and reported to the SAG that he had presented information on the SALSEA programme to the Consultative Committee of ICES on two occasions and the item remains on that Committee’s agenda. This Committee includes representatives of the ICES advisory and science committees. He had provided the background to the establishment of the International Atlantic Salmon Research Board and the development of the SALSEA programme, an overview of NASCO’s work under the Precautionary Approach and the Board’s efforts to implement a fund-raising initiative. The Consultative Committee had indicated its support for the SALSEA programme and had suggested that ICES would be willing to serve as a coordinator for the SALSEA programme if that would be of interest to the Board. The SAG believed that it could be valuable for ICES to assist the Board by identifying possible opportunities for salmon research to be incorporated into existing research vessel cruises and in providing oceanographic information of relevance to the SALSEA programme.

5.5 It was noted that the SALSEA programme is a comprehensive mix of freshwater, estuarine, coastal and offshore elements but that the Board’s initial priority is studies of the migration and distribution of salmon at sea. The SAG discussed the nature of the information on mortality of salmon at sea that would be derived from the inshore and offshore elements of the SALSEA programme. It was recognized that telemetry studies in coastal waters could provide quantitative estimates of mortality and that such studies might be progressively extended offshore. In contrast, the information derived from offshore research would be qualitative in nature but improved understanding of the distribution of salmon at sea should facilitate identification of the factors influencing them.

5.6 The SAG noted that there had been discussions between the Secretary and President of NASCO and the Research Directorate General of the European Commission in relation to possible funding under the EU Seventh Framework Programme. The SAG recognized that there may need to be considerable work in developing a proposal to ensure that elements in the SALSEA programme are framed around one of the Seventh Framework Programme themes (e.g. climate change). However, the SAG was advised of an initiative to include the SALSEA programme as a separate theme under the EU programme.

(b) Recommendations to the Board

5.7 In adopting the SALSEA programme, the Board had agreed that research priorities and timescales for the use of the Board’s existing funds that are available for research should be identified and the research initiated at the earliest opportunity. This would demonstrate to the Parties and to potential fund-raisers further progress in implementing the SALSEA programme. In 2005 the Board had noted that several research coordination Workshops had been identified that would support the SALSEA programme. The Chairman introduced document SAG(06)2 which indicated that in
accordance with the Board’s decisions at its 2005 meeting, the SAG had been requested to liaise with the SAG members to develop recommendations on:

- projects that might be initiated immediately given that the major elements of the SALSEA programme are dependent on substantial funds being raised;
- detailed timelines and costings for the components of the SALSEA programme based on various funding scenarios.

5.8 The SAG had previously identified two main topics that might be supported from the Board’s existing resources, SAG(06)2. These were analysis of tagging data and genetic stock identification. While the SAG was aware of the Board’s current financial resources, it did not know the extent of the funds that may be available to support research because the Board’s planned expenditure in other areas in the coming year is unknown.

Analysis of tagging data

5.9 The SAG noted that there is a considerable amount of information on tag recoveries in laboratories around the North Atlantic that have not been fully analyzed (e.g. data from West Greenland, Maine, Norwegian Sea and Faroes). While the SAG recognized that the historical tag recovery data had been obtained from fisheries, many of which no longer operate or are greatly reduced, there could be valuable information obtained from an analysis of the information with regard to the spatial and temporal distribution of salmon at sea. The Group discussed if there would be merit in an assessment of the lessons learned from previous tagging studies but noted that the SALSEA programme proposes the use of genetic stock identification methods to identify fish sampled during research cruises. The SAG believes that an analysis of historical tag data could be highly informative and could assist in planning research cruise efforts. The SAG noted that the ACFM report to NASCO, CNL(06)7, contains a recommendation that “a Workshop be organized to assemble and analyse historical tagging information to investigate trends in migration and marine distribution of salmon at sea”. The SAG supported this recommendation and suggests that if ICES organized such a Workshop the Board may wish to propose to ICES that it would be willing to support the participation of a small number of additional experts, particularly oceanographers and experts in GIS (Geographic Information Systems). It was suggested that participation in the Workshop by salmon biologists might be facilitated if it was held in conjunction with a meeting of the Working Group on North Atlantic Salmon. Others had concerns about extending the Working Group meeting. The SAG felt that funding of up to £5,000 by the Board might be appropriate.

Genetic stock identification

5.10 There is now a concerted effort, SALMAN, in relation to genetic stock identification (GSI) of salmon, which aims to collect standardized genetic information on Atlantic salmon from around the species’ distribution area. SALMAN is an association of scientists who have agreed to collaborate on salmon genetic issues under the coordination of Eric Verspoor in Scotland and Tim King in the USA. The SAG discussed whether or not it would be valuable to support a workshop with the objective of planning an inter-laboratory calibration exercise involving laboratories
working through the SALMAN initiative. The SAG also discussed whether at that Workshop the SALMAN members might be asked to develop a road map of how genetic stock identification work is developing and how it might be used to support the SALSEA programme. The SAG recognized that it did not have the technical expertise to develop detailed Terms of Reference for a genetic workshop and noted that there had already been some progress at a meeting in Virginia in 2004 in agreeing sixteen loci for use in future genetic studies of salmon. However, the report of this meeting had not been seen by members of the SAG. The SAG felt that it would be useful to have an update on progress and further explanation of how genetic stock identification may be implemented in the SALSEA programme. Rather than proposing a workshop to allow this information to be developed the SAG agreed that the Board should seek proposals from geneticists, through a process of competitive tenders, to develop a comprehensive report on these aspects. The SAG recommends that a sum of £20,000 should be made available to facilitate this process.

Other topics

5.11 A third project, identified by the SAG, but of lower priority, would be for the Board to seek updated information on advances in scale reading methodologies and analyses in relation to marine growth and details of relevant data sets. It was suggested that Dr Kevin Friedland (USA) might be approached in this regard. The SAG recommends that the Board should allocate a sum of £10,000 for this project. The SAG also felt that the Board may wish to consider opportunities to enhance collaboration in relation to information obtained from monitored rivers.

Timelines and costings

5.12 The Chairman of the Board, Mr Jacque Robichaud, indicated that the SAG had been asked to develop detailed timelines and costings for the components of the SALSEA programme based on various funding scenarios (e.g. if £7.5 million was available in 2007, £4 million available in 2008, etc.). The SAG recognized that it would be important to prioritise the research elements in the SALSEA programme in the event that the Board proceeds with a fund-raising programme. For example, a potential sponsor may wish to know how any contribution to the Board would be spent and it may be possible to extend the period of research so as to reduce the funds required each year. The SAG noted that one possible approach might be to initially prioritise the highest cost projects in the SALSEA programme but noted that a number of projects are inter-dependent. The SAG, therefore, developed a matrix of research priorities within the SALSEA programme (Table 1).

5.13 The following costings are based on those provided in the SALSEA programme. It should be borne in mind that the SALSEA programme includes a wide range of marine and freshwater elements, and was designed to allow consideration to be given to funding specific components, either as support to the full implementation of the programme, which is clearly the desired option, or to possible stand-alone elements which could be considered from funding if this became necessary. The IASRB has agreed to give priority to the marine surveys for their funding efforts, and only the components of Workpackages 1 (Supporting Technologies) and 3 (Oceanic Distribution and Migration) are costed in the SALSEA programme, that states that:
“No costs are provided for Work Package 2 (Early Migration) as it is assumed that this work will continue to be carried out by the Parties, but will include a greater level of cooperation and coordination of research in the priority areas previously outlined in this report”.

5.14 The first option in Table 1 is the cost presented in the SALSEA programme for full implementation of Work Packages 1 and 3 with a minimum of two years of cruises in all jurisdictions outlined in the SALSEA programme. The total estimated funding required is £7,760,000.

5.15 The second cost option assumes that only one year of cruises in all jurisdictions can be funded and that all of the supporting technology programmes are also implemented. The cost in this instance is £4,960,000 but will lack the advantage of having the second year of cruises to consolidate the initial survey findings.

5.16 Option 3 is the minimum cost considered to allow at least three cruises of the fifteen cruises outlined in the SALSEA programme over one year and full implementation of the preparatory programme (3.2 and 3.1). However, there will be limited development of trawl techniques (1.2) and the costs presented here are limited to purchase or adaptation of existing trawls for these cruises. The costs of analysis (3.4) are also reduced to account for the lower volume of material to be analysed. Elements such as the genetic stock identification baseline (1.1) will need to be funded from other sources as will the analysis of existing scale sets (1.3) to highlight important information in historical marine survival. This option costs £750,000 which is considered the minimum for initiating research cruises.

5.17 The remaining options (4 to 7) assume that only limited funding, as indicated, becomes available and, for illustrative purposes, funds of £400,000, £200,000, £100,000 and £50,000 are shown with the elements of the SALSEA programme which should be considered for funding. In all instances, the funds are not sufficient to allow a research cruise effort which would provide adequate spatial or temporal coverage to meet the SALSEA objectives. The elements to be considered are therefore restricted to the establishment of the genetic baseline (1.1) and the analyses of scale samples (1.3), either in full or in part, depending on the funding available.

5.18 If funding greater than £750,000 but less than £5 million is secured, decisions would need to be made about the number and distribution of additional research vessel cruises to be undertaken and the relative level of investment in other parts of the SALSEA programme, including genetic analysis and scale studies.

5.19 With regard to the establishment of the international genetic baseline (1.1) it should be noted that a considerable investment has been put in place since the SALSEA programme was developed and that the costs illustrated in this example required for this element are, therefore, overstated.

6. Other business

6.1 There was no other business.
7. **Report of the meeting**

7.1 The SAG agreed a report of its meeting.

8. **Date and place of next meeting**

8.1 The SAG decided to agree the date and place of its next meeting by correspondence.

8.2 The Chairman closed the meeting and thanked the members of the group for their contributions.
Table 1   SALSEA components to be considered depending on available funds

<table>
<thead>
<tr>
<th>SALSEA Workpackage</th>
<th>WP and task</th>
<th>Task title</th>
<th>Priority</th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
<th>Option 4</th>
<th>Option 5</th>
<th>Option 6</th>
<th>Option 7</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>All cruises</td>
<td>All cruises</td>
<td>3 cruises</td>
<td>Available</td>
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<tr>
<td>Supporting technologies</td>
<td>1.2</td>
<td>Sampling techniques and new technologies</td>
<td>1</td>
<td>£300,000</td>
<td>£300,000</td>
<td>£300,000</td>
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<tr>
<td>Oceanic distribution and migration</td>
<td>3.2</td>
<td>Standardisation - a common approach</td>
<td>2</td>
<td>£25,000</td>
<td>£25,000</td>
<td>£25,000</td>
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<tr>
<td>Oceanic distribution and migration</td>
<td>3.1</td>
<td>Distribution mechanisms</td>
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<td>£25,000</td>
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<tr>
<td>Oceanic distribution and migration</td>
<td>3.3</td>
<td>Salmon at sea</td>
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<td>£2,000,000</td>
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<tr>
<td>Oceanic distribution and migration</td>
<td>3.4</td>
<td>Distribution and migration</td>
<td>3</td>
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<td>Supporting technologies</td>
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<td>Signals from scales</td>
<td>4</td>
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<td>X</td>
<td>X</td>
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</tbody>
</table>

Cost £7,700,000 £4,950,000 £700,000 £400,000 £200,000 £100,000 £50,000
List of Participants

Canada
Mr Gerald Chaput
Mr David Meerburg

Denmark (in respect of the Faroe Islands and Greenland)
Dr Jan Arge Jacobsen

European Union
Dr Niall O’Maoileidigh
Mr Ted Potter

Norway
Dr Lars Petter Hansen (Chairman)

Chairman of the Board
Mr Jacque Robichaud

Secretariat
Dr Peter Hutchinson
SAG(06)6

Meeting of the Scientific Advisory Group of the
International Atlantic Salmon Research Board

Hotel Riekonlinna, Saariselkä, Finland
Sunday, 4 June, 2006

Agenda

1. Opening of the meeting
2. Election of Chairman
3. Adoption of the agenda
4. Review of the updated inventory of research
5. The SALSEA Programme
   (a) Progress report
   (b) Recommendations to the Board
6. Other business
7. Report of the meeting
8. Date and place of next meeting
Annex 4 of CNL(06)11

ICR(06)3

Peer Review of the SALSEA Programme

1. At its last meeting, the Board agreed that there should be a peer review of the SALSEA programme. Drs Dick Beamish (Canada) and Jack Helle (USA), both of whom have extensive experience of research on Pacific salmon, were identified as possible scientists who might be asked to conduct such reviews. Dr Beamish has responded, and indicated that he liked the proposal and noted the similarity to marine survival issues for salmon in the Pacific. His comments are contained in Annex 1. He suggests that freshwater factors are unlikely to be the key to recent trends in poor returns, and while there is a tendency to continue freshwater research because it has inertia, he feels it may be better to focus on marine studies. He is supportive of the marine survey, particularly when combined with genetic stock identification and a comprehensive disease assessment programme. He believes that while there are numerous sources of mortality, there has to be a fundamental mechanism regulating carrying capacity, rather than predation and disease, which are too random to be the mechanism, and suggests that there might be benefits from the establishment of a small international team of people studying the basic mechanisms regulating salmon populations. One proposal that the Board will be asked to consider is whether it would wish to support a joint symposium with the North Pacific Anadromous Fish Commission in 2008 or 2009 to allow for a further exchange of information between researchers in the North Pacific and North Atlantic Oceans.

2. We do not yet have the feedback from Dr Helle but anticipate that this will be available before the meetings of the Board and its Scientific Advisory Group (SAG) on 5 and 4 June, respectively.

3. Last year, the Board had also asked that the SALSEA programme be communicated to ICES to raise awareness of the programme and to seek support for, and feedback on, the programme from scientists working on diadromous fish, and from the broader community of marine scientists in relation to SALSEA’s relevance to the ecosystem approach. Dr Niall Ó Maoléidigh, who was Chairman of the ICES Diadromous Fish Committee at the time, agreed to make appropriate arrangements within ICES. We anticipate that Dr Ó Maoléidigh will be attending the meeting in Finland and will be able to report back to the SAG.

Secretary
Edinburgh
12 May 2006


Comments on the SALSEA programme by Dr R Beamish, Department of Fisheries and Oceans, Nanaimo, Canada

P7-12 very little to add

- Use of DNA stock ID and high seas sampling methods will enable us in the Pacific to identity where, when and at what age juvenile salmon are located in the ocean. This allows us to associate ocean and climate conditions with marine survival. Our high seas sampling also provides abundance estimates which we are finding out relate to subsequent returns. We should eventually be able to eliminate the coastal “surprises” such as occur in the Fraser River.
- probably could do this cooperatively with laboratories in the Pacific.
- will migration routes change as regimes change?
- there is no reported size bias in the trawls we use.

P13

- local factors in the ocean are related to basin scale factors in our Strait of Georgia studies. There may be a local expression of the basin scale change but they are related.
- Body size is important as it represents energy storage which is needed in the winter when there is a net lipid deficit.

P15

- I suspect that freshwater experiences are not key to the recent trend in poor returns. There is a tendency to continue freshwater research because it has inertia, but it may be better to focus on marine studies.

P19

- Predators are a major source of mortality, but salmon smolts most likely are a minor prey for predators. It is useful to do the scarring study, but predator diet studies traditionally are difficult to interpret.

P21

- Aquaculture impacts need to be monitored but the recent declining trends in production probably are related to large-scale changes in the ocean. What are the sea lice intensities on wild Atlantic salmon and have they changed over the period that salmon farming developed? It may be possible that the very reduced density of wild salmon may affect the productivity of sea lice in the open ocean. I realize that it is the farm site that is of interest, but the wild salmon will carry the sea lice into the open ocean unless the fish are killed which should not be too difficult to assess.

P23

- The marine survey may be your best bet; particularly when it is combined with DNA stock identification and a comprehensive disease assessment program.
Pacific salmon are doing very well. In 2003, there was the second-highest all nation catch in history. In 2005 Alaska had its largest catch in history. It is useful to try and understand why these historic high catches are occurring as the mechanism probably relates to Atlantic salmon and may provide cues to the widespread poor production. I suspect the key is the amount of lipid storage in the first marine year in relation to the energy required to survive the first marine winter. There are numerous sources of mortality but there has to be a fundamental mechanism regulating carrying capacity. Predation is too random to be the mechanism, as is disease. It may be wise to create a small international team of people studying the basic mechanism regulating all salmon populations. One or two meetings for several years may be a good investment as it could focus research, saving money in the long term.
ICR(06)4

Responses from the Parties on Funding for the SALSEA Programme and a Fund-Raising Initiative

1. At its last meeting in Vichy, the Board fully and unanimously endorsed the SALSEA programme and noted that its implementation would require funding of between £7.8 - £10.5 million over five years, depending on whether there were two or three years of research cruises. On 25 August last year, I sent to the Board members a proposal from Brakeley Consultants in relation to fund-raising. This proposal set out all the action needed and summarised the costs (Annex 1). Brakeley’s had suggested a public/private-sector initiative, with the Parties contributing around £4 million over five years. The cost of a fund-raising exercise with the private sector to raise the additional £4-5 million was estimated to be in the region of £350,000 over a period of about three years, although some of these costings were indicative only.

2. Following consultation with the Chairman of the Board I wrote to the Parties on 25 August 2005 and asked for a response to the following two questions:

(1) Are you able and willing to contribute a share of a total of about £4 million (in cash or new resources) over the next five years, i.e. your share of about £800,000 per year?

If so, how can the sum be shared (e.g. equally, according to the NASCO formula, or according to a new (Board) formula)? Equal shares would be about £115,000 per annum per Party for five years.

(2) Are you able and willing to contribute a share of a total of about £350,000 over about three years to develop a fund-raising capability to the point where funds are, hopefully, flowing in?

If so, how can the sum be shared (e.g. equally, according to the NASCO formula, or according to a new (Board) formula)? Equal shares would be around £17,000 per annum per Party for about three years.

3. A number of possible outcomes were envisaged depending on the responses from the Parties. These were as follows:

<table>
<thead>
<tr>
<th>Q1</th>
<th>Q2</th>
<th>OUTCOME</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>YES</td>
<td>We can initiate SALSEA now and carry out the whole programme with two years of research cruises if fund-raising is successful.</td>
</tr>
<tr>
<td>YES</td>
<td>NO</td>
<td>We can start selected elements of SALSEA but we cannot fund all of the programme.</td>
</tr>
</tbody>
</table>
I have now received the following responses from the Parties’ Board Members and these are summarized below.

Canada

No response received.

Denmark (in respect of the Faroe Islands and Greenland)

No response received.

European Union

As I indicated when we spoke, I have discussed the SALSEA funding with John Spencer. He was hoping to have a meeting with you, and he said that he would discuss issues relating to possible funding from the Commission at that time. I agreed to contact Member States to determine what contributions they might be able to make.

EU Member States were asked three questions: can they contribute to the cost of the consultants (mainly in the next 1-2 years); can they contribute to the balance of the overall research programme that will not be covered by the fund-raising, including redirecting current research work; and could they contribute any assistance to the research programme in kind (e.g. research vessel time). So far I've managed to get information from six Member States (including the 'main players' UK and Ireland), and the picture is fairly consistent; research and development funds are generally very tight (and/or have yet to be allocated).

With regard to contribution to the costs of the consultants, only one country has indicated that they MAY be able to contribute, although their budgets for 2006/07 have not been finalised. All other countries have so far indicated having no spare funds for this purpose.

There is general support for the SALSEA programme, and several Member States have said that they may be able to modify some of their research programmes to fit in better with the SALSEA objectives, but in most cases this would not involve contributing funds to the SALSEA budget but would involve commissioning research on issues in the programme that are of particular national interest. Only one country has said that such 'contributions' might include putting funds into the SALSEA kitty.

Some countries have indicated that they might be able to provide assistance in kind, two suggesting that they may be able to provide some research vessel time, although this would need to be fitted into their marine fisheries research vessel programme.
I am still chasing some Member States and others have said that they will try to provide firmer information in the coming weeks.

**Iceland**

**Question 1:** We cannot visualize putting so much money directly into research according to the formula so the answer to question 1 is NO.

**Question 2:** We would like to contribute an equal share for funding the fund-raising for 3 years, pending that we get funds to increase the NASCO contribution (Pounds 17,000 for 3 years). The answer to question 2 is thus YES (we are willing and probably able).

**Norway**

We have discussed your questions on the background of the recommendations made by Brakeleys. Unfortunately we cannot give you a complete and conclusive answer at this stage, but would like you to consider the following reply:

**Question 1:** There are several issues that need further consideration, mainly in relation to how research on salmon at sea is currently organized in Norway and budgetary implications and solutions. We would also like to suggest another option on how to proceed given the fact that the Board, Fund and SALSEA programme were set up based on the presumption that there are considerable amounts of private money "out there", that could match current public spending and efforts on these issues. What about an approach where the Parties commit themselves to double any given amount of private sponsor money, within a given timeframe and up to a defined maximum amount. Couldn’t this also work as an extra motivation factor for private sponsors to give money? In any case we would also like to emphasize that the cost sharing cannot be based on the NASCO formula and that equal shares might be a realistic model for cost-sharing.

**Question 2:** We think that the costs connected to the fund-raising activities seem to be very high, especially on the background of the uncertainty of getting any money from private sponsors at all. We would like to ask whether we could find other more cost-effective ways of doing this. We discussed that one alternative could be to hire a person (part-time), with the skills required, at the NASCO Secretariat (?) and set up a group/network of people amongst our NGOs experienced in fund-raising (who could be paid by the hour) to do the job, following the work plan made by Brakeleys. And again we would like to mention that any costs connected with this could not by shared based on the NASCO formula and that equal shares might be a realistic model for cost-sharing.

We are prepared to, and will continue to, work on finding solutions, but at the same time we feel that suggestions like ours should be further discussed, before we give our final answers. We also feel that answers given by other Parties will be important for our further considerations. We therefore look forward to getting a summary of the replies made by other Parties.

Finally we would also like to confirm that the money already given by Norway in principle can be used both on research projects and fund-raising activities, but we
would like to see the outcome of the questions asked above, before we give our final approval of how the money can be used.

Russia

Question 1: It may be difficult for us to arrange that our government pays a contribution in cash; however, we may be able to contribute with research vessel days on salmon research at sea. To this end, we are now considering, how we can incorporate this into our standard research surveys plans.

Question 2: At this point of time, it is difficult to make any commitment that Russia can contribute cash in addition to the annual subscription to NASCO. Additional cash from government funds, as you know, is always a problem. Anyway, any sum to be contributed, should, I presume, be shared equally among Contracting Parties.

USA

Question 1: No.

Question 2: No.

The U.S. can confirm that per the conditions of the grant by which the U.S. contribution was provided to the Board, the U.S. funds can only be used for research-related purposes, and not for fund-raising purposes.

At the meeting in Finland, Board members will be asked to confirm the situation with regard to contributing to the SALSEA programme and any fund-raising activities.

Secretary
Edinburgh
12 May 2006
1. **Proposed service**

This proposal for consultancy assistance, following the Report of the Fundraising Feasibility and Planning Study, is designed to prepare, set-up, and implement a programme of action to assist IASRB in fundraising for the SALSEA programme.

2. **Introduction**

In the report of the Fundraising Feasibility and Planning Study for IASRB, BRAKELEY made the following recommendations on the understanding that the SALSEA initiative, as costed, was adopted by NASCO/IASRB and supported by Accredited NGOs:

1. Contracting Parties should be approached for an additional GBP 4M over the five-year period, (this additional funding possibly contingent on matching funds being secured from private sources).*
2. A fundraising initiative for GBP 4M over five years should be undertaken.*
3. Accredited NGOs with fundraising experience should commit themselves to providing support for the fundraising for this initiative for the period of the programme.
4. The focus of fundraising should be the SALSEA initiative with IASRB as the managing agent for the programme.
5. All fundraising initiatives by Accredited NGOs for activities falling within the SALSEA programme should be encouraged as long as they are fully co-ordinated with programme management.
6. NASCO/IASRB should engage professional fundraising management.
7. Management of fundraising should be closely co-ordinated with the management of the SALSEA programme.
8. The Chair of IASRB should budget a substantial proportion of his time for fundraising/public relations activity.

Brakeley also proposed the following Next Steps for IASRB:

1. A ‘public private partnership’ strategy should be defined and agreed by NASCO/IASRB.
2. With the assistance of the Accredited NGOs, IASRB should enlist (or create a parallel structure including) people who can deliver the GBP 8M (USD 14M) of additional public and private funding required.
3. The Accredited NGOs should be integrated into the strategy with full transparency and partnership in both policy and fundraising matters.
4. A communications programme should be implemented to support these initiatives.

*(Note: The total fundraising goal remains to be clearly defined. Brakeley is working on the basis of a planning goal of the order of £5 million from non-governmental sources).*
3. Programme of Action

Brakeley proposes a programme of action divided into three phases as follows:

**Phase 1 - Preparation for Fundraising**

In the Study Report Brakeley identified the greater involvement of the Accredited NGOs, particularly in the enlistment of volunteer leadership, as essential to any future success in fundraising. A key element of preparation will therefore be to understand the nature and activity of the Accredited NGOs and to discuss with their leaders how their greater involvement with IASRB and the SALSEA programme can be achieved to the advantage of all concerned. The discussions will include exploration of ways of identifying and enlisting high-level volunteer leadership. The objectives will be to provide a platform for future identification of potential leaders and prospective donors and to devise robust and transparent structures for the future management of fundraising with the participation of all parties.

The following two activities will run concurrently.

1. **Involvement of NGOs**
   - Carry out a survey of Accredited NGOs for relevance and capacity
   - Conduct interviews with selected NGO officers and leaders
   - Undertake an evaluation of potential NGO involvement

   **Staff involved**  
   David Carr Morris and Anne Voboril Conner

   **Resource requirement**  
   17 consultant days

   **Fee**  
   £15,350

   **Deliverables**  
   Report with recommendations on model fundraising arrangements
   Provisional list for prospect research programme
   Provisional list for leadership enlistment

   **Timescale**  
   Three months

2. **Structures of Governance**
   - Discuss recommended model arrangements with IASRB leadership
   - Prepare a proposal for administrative and financial arrangements for fundraising
   - Secure the buy-in of all interested parties

   **Staff involved**  
   William Conner, David Carr Morris and Anne Voboril Conner

   **Resource requirement**  
   8.5 consultant days

   **Fee**  
   £8,400

   **Deliverables**  
   Final agreed programme of involvement

   **Timescale**  
   Three months
Phase 2 - Prospective Donor Identification and Leadership Enlistment

The work undertaken for the Study Report, taken together with the information obtained in discussion with Accredited NGO leadership, will inform a programme of prospect research that will aim to identify some 100 realistic prospective donors and to prepare the detailed profiles, essential for effective fundraising, on some 50 of these. Undertaking this work in the preparatory stage before any fundraising takes place will ensure that the fundraising itself is firmly based and can develop and maintain momentum.

At the same time the process of enlisting a group of economically influential leaders will begin. The key to this will be a series of interviews with these potential leaders, following introductions made through NGOs, as a preparation for engagement as part of a leadership group. It is also anticipated that these interviews will add to the list of prospective donors to be researched.

This phase will take six to ten weeks, primarily because of the time required to make interview appointments with potential leaders of the calibre required.

The precise levels of resource required will be identified in the reporting on Phase 1. The fee levels stated are therefore indicative only.

i. Prospect research

- Identify 100 realistic prospective donors
- Research the top 50 of these prospective donors and prepare profiles

Resource requirement 15-20 Prospect Research Days
Fee c £10,000
Deliverables Report and profiles
Timescale Two months

ii. Identification and enlistment of volunteer leadership.

- Identify core group of 8 to 12 potential volunteer leaders to whom introductions can be made
- Interview these potential leaders
- Recommend, and plan the enlistment of, core leadership group
- Prepare plan for enlistment and engagement of expanded leadership group.

Resource requirement 10-15 Consultancy days
Fee £11,000
Deliverables Report and action plan
Timescale Two Months

Phase 3 - Management of Fundraising

The management of fundraising would fall into two stages. The setting up stage would cover the preparation of a detailed plan and the integration of the plan with the programme for the SALSEA research activity. The second stage would involve the programme of enlistment, cultivation and solicitation of gifts, first from fundraising volunteer leaders and then from the donors whom they
would introduce and influence. The management period is envisaged as taking place over two to three years with the first stage taking 6-9 months and the second stage two years to completion.

i. Planning Fundraising Approaches

- Revising the case for Support
- Coordinating with the SALSEA programme
- Specifying the project elements
- Writing sample proposals and applications
- Sequencing and segmenting the campaign plan
- Appointing and training a co-ordinator*
- Selecting and commissioning a fundraising database
- Database training
- Engagement of Campaign Chair and international and national lead groups
- Meeting and reporting

(Brakeley advises the appointment of a co-ordinator to be based at the office in Edinburgh. This would be a half-time equivalent post for an experienced secretary/administrator.)

Estimated Resource requirement  90 consultant days
Fee (Monthly)    £14,000
Deliverables    Monthly Reports; Draft Plan
Timescale    Six Months

Fundraising Operations

- Refining Plan with lead groups
- Cultivation Programme
- Events
- Written Proposals
- Solicitations
- Follow-up and Stewardship
- Direction and co-ordination
- Supervision and Reporting

Resource requirement   220 Consultant Days
Fee (Monthly)    £9,000
Deliverables    Monthly Reports; Agreed fundraising goal
Timescale    Two Years

Expenses

We should endeavour to keep expenses to a minimum through distributing work to Brakeley staff in the UK, in the USA, and in the Nordic and other mainland EU countries as appropriate and by sharing international travel expenses with other clients wherever possible. To avoid excessive time spent on reconciling small expenses we charge an additional flat rate of 2% of the fee for communications and other incidental expenses. We suggest an initial budget figure of £1,500 per month for travel and subsistence which could be regularly reviewed in the light of experience.
**Personnel**

The preparation for fundraising activity would be undertaken by David Morris and Anne Voboril Conner under my direction with additional assistance from Brakeley subsidiary company staff in the Nordic countries, Germany and France as appropriate.

For management we should involve local Brakeley consultants as appropriate in the countries concerned. Use of all consultants would be subject to the agreement of the Secretary of IASRB.

**Conditions**

Invoices for Brakeley fees would be submitted by the 15th of each month for payment by the end of the month. VAT is charged on all our invoices.

Brakeley standard conditions of service continue to apply.

Brakeley looks forward to being able to assist the International Atlantic Salmon Research Board in implementing its SALSEA programme.

William Conner
Managing Director
Rules of Procedure for the International Atlantic Salmon Research Board

1. The International Atlantic Salmon Research Board is a body, established by and reporting to the Council of NASCO, to promote collaboration and cooperation on research into the causes of marine mortality of Atlantic salmon and the opportunities to counteract this mortality.

2. The Board shall establish and administer an International Atlantic Salmon Research Programme into the causes of marine mortality of Atlantic salmon and the opportunities to counteract this mortality with the following Terms of Reference:
   - maintaining an inventory of relevant research projects which are ongoing or planned and for which budgets have been confirmed;
   - identifying research needs;
   - evaluating the inventory against research needs;
   - identifying gaps in the inventory of research and setting priorities for further research;
   - providing a forum for coordination of relevant research efforts by the Contracting Parties of NASCO;
   - developing administrative mechanisms to accept financial contributions to an International Atlantic Salmon Research Fund;
   - soliciting and accepting financial contributions and managing the Fund;
   - establishing terms and conditions for soliciting, evaluating, approving and funding relevant research projects;
   - funding approved projects and reviewing results in relation to the objectives of the Programme.

3. The Board shall comprise one Member from each Contracting Party assisted, as appropriate, by one or more advisers. The costs associated with representation on the Board shall be borne by the Contracting Parties. In exceptional circumstances the Board may, by consensus, deviate from this rule concerning membership and costs.

4. The Board may establish criteria for appointment of, and may appoint, Patrons to the International Atlantic Salmon Research Fund.

5. The Board shall work by consensus but in the event that agreement cannot be reached the matter concerned shall be referred to the Council of NASCO for resolution.

6. The Board shall meet on an annual basis or at more frequent intervals if it, or the Council of NASCO, so decides.

7. Between meetings the Board may conduct its work and take decisions by correspondence.
8. The Board shall invite the Chairman of NASCO’s accredited NGOs, or his/her nominee from within the accredited NGOs, to participate in the meetings of the Board so as to provide the NGO viewpoint on the issues under discussion. The Board should consider appropriate arrangements for increasing NGO involvement in its work.

9. The Board shall establish a Scientific Advisory Group (SAG) to identify research gaps and priorities, to develop recommendations for enhanced coordination of existing research, to develop calls for proposals, and to develop recommendations for research and other activities that may be supported by the Board. The SAG shall invite the Chairman of NASCO’s accredited NGOs, or his/her nominee from within the accredited NGOs, to participate in its meetings so as to provide the NGO viewpoint on the issues under discussion.

10. The Board shall appoint a Chairman by consensus, who shall serve for a term of two years and who may be eligible for re-election for a further term of two years. A Contracting Party providing the Chairman shall also be entitled to provide a Member of the Board and one or more advisers.

11. The Board may establish Working Groups in order to progress specific areas of its work.

12. The Secretariat shall provide a Rapporteur and reports of the Board’s meetings shall be presented to the Council in a timely manner.

13. The Board may seek advice from NASCO’s Standing Scientific Committee.

14. The Board may make arrangements for external scientific evaluation of research projects funded by the Board or any research projects considered for funding under the International Atlantic Salmon Research Programme.

15. These Rules of Procedure may be subject to review by the Council of NASCO at any time.
Council

CNL(06)12

*Discussion Document from the Standing Scientific Committee on Options for Changing the Request for Advice from ICES*
Discussion Document from the Standing Scientific Committee on Options for Changing the Request for Advice from ICES

Summary

1. The Council has agreed that the three regional Commissions of NASCO should consider whether regulatory measures for fisheries could be adopted and scientific advice from ICES sought on a biennial or multi-year basis. The Standing Scientific Committee was asked to develop a discussion document on options for amending the form and nature of the request for scientific advice in the event that multi-annual regulatory measures are established. This discussion document is attached.

2. For the purposes of considering requirements for scientific advice, four types of regulatory measures might be considered: ‘annual measures’, ‘adjusted multi-annual measures’, ‘fixed multi-annual measures’ and ‘flexible multi-annual measures’. If the Commissions set annual or adjusted multi-annual measures, then they will continue to need annual catch advice, although for adjusted multi-annual measures a less comprehensive assessment might be sufficient. If there is an annual request for catch advice it is assumed that NASCO would continue to request the other elements of its advice from ICES. In the case of fixed multi-annual measures and flexible multi-annual measures, there would be options to modify the scope of the request for advice. These are outlined in the attached document. However, the objection procedure under Article 13 in the case of fixed multi-annual measures, and the opt-out arrangements in flexible multi-annual measures, introduce considerable uncertainty with regard to the need for catch advice.

3. At the ‘Next Steps for NASCO’ Task Force meeting (see CNL(06)15) there was general recognition that it would be beneficial to have multi-year measures but that this may or may not be accompanied by a reduction in the frequency of scientific advice. The Task Force stressed the importance of continued maintenance of scientific databases and ensuring the availability of information on any change in abundance that would require changes to a regulatory measure. Any change to the arrangements for obtaining scientific advice will, therefore, need to be carefully considered by the Council and Commissions. In the light of feedback from the Council and Commissions as to its information and advice needs, in the event that multi-annual measures are agreed, the Standing Scientific Committee will be able to reformulate the request for advice so as to ensure that NASCO continues to have the information it needs to inform its work.

Chairman - Standing Scientific Committee
Edinburgh
7 April, 2006
Options for changing the form and nature of the scientific advice required by NASCO –
A discussion document by the Standing Scientific Committee

1. Background

1.1 In the light of the recommendations of the ‘Next Steps for NASCO’ Working Group, the Council has agreed that the three regional Commissions of NASCO should consider whether regulatory measures for fisheries could be adopted, and scientific advice from ICES sought, on a biennial or multi-year basis (CNL(05)49). One reason for considering this approach was to allow NASCO to use the time available to it most effectively and efficiently while ensuring that the Organization can continue to base its decisions on the best available scientific information in accordance with the Convention. It was recognised by the ‘Next Steps for NASCO’ Working Group that the need for annual catch advice may be less when the advice does not change significantly from year to year. During its meetings in Vichy in June 2005, the Standing Scientific Committee (SSC) had some initial discussions on this issue but was unable to proceed because it did not know whether or not multi-annual measures would be agreed (or their nature), and it had no direction from the Council or Commissions as to the information and advice they would need in the event that catch advice was not required. The SSC therefore proposed to the Council that it might develop a discussion document on options for amending the form and nature of the request for scientific advice in the event that multi-annual regulatory measures were established. The Council agreed and asked that this document be made available to the Parties in advance of the Twenty-Third Annual Meeting.

2. Types of regulatory measure

2.1 In the context of requirements for scientific advice it is useful to consider four types of regulatory measures that NASCO has or may introduce:

- ‘annual measures’ which apply only for a single calendar year or fishing season;
- ‘adjusted multi-annual measures’ which cover two or more years but which include a mechanism to determine the regulations (e.g. the quota) each year based upon the latest scientific advice;
- ‘fixed multi-annual measures’ which cover two or more years, in which the regulation is fixed and from which the Parties cannot withdraw once it becomes binding, unless the objection procedure under Article 13 is invoked by the Party in whose area of fisheries jurisdiction the measure applies;
- ‘flexible multi-annual measures’ which are open-ended but where each Party to the measure retains the option to withdraw from it or instigate a review process by a specified date each year.

2.2 Since NASCO’s inception, the regulatory measures (and decisions) agreed by the West Greenland (WGC) and North-East Atlantic (NEAC) Commissions have mainly fallen into the first category (‘Annual measures’). These measures have specified the total allowable catch and, where appropriate, effort restrictions and other controls that should be applied in the following fishing period.
2.3 The WGC has also agreed an ‘adjusted multi-annual measure’ covering the years 1993 - 1997 which established a mechanism for calculating the annual allowable catch on the basis of information from ICES on *inter alia* the harvestable surplus.

2.4 ‘Fixed multi-annual measures’ were introduced in some years in the late 1980s and early 1990s. These measures specified a total allowable catch for a period of two or more years. Although the allocation of the allowable catch between years could be adjusted by the national management authority, this was not subject to renegotiation by NASCO. Although these measures included no formal withdrawal procedure, they were subject to the conditions of Article 13 of the Convention, which states that one year from the date on which a regulatory measure becomes binding (i.e. 60 days after the Secretary’s notification), a Party in whose area of fisheries jurisdiction the measure applies may denounce it. The measure then ceases to be binding 60 days after the date of receipt by the Secretary of the notice of denunciation, or at a later date if the objecting Party so requests. If Article 13 was invoked, measures agreed at the Annual Meeting and notified to the Parties in June would become binding in August and they would apply at least until early October in the following year (i.e. towards the end of a second season for a West Greenland fishery, or towards the end of the first calendar year for a fishery at Faroes). For a multi-annual measure to be truly fixed the Party in whose area of fisheries jurisdiction the measure applied would need to waive its right to object under Article 13.

2.5 Recent catch advice from ICES has changed little for some years and in the periods 1998 – 2000 inclusive and 2003 – 2005 inclusive, the allowable catch for the West Greenland fishery has been restricted to the amount used for internal consumption in Greenland. In 2005, the WGC discussed the possibility of introducing a measure for the 2005 fishery, WGC(05)4, which would have been extended automatically to cover successive fishing seasons unless a Member of the Commission indicated, by 25 April in any year, its intent to terminate the regulatory measure. In that event, negotiation of a new regulatory measure would occur at the next annual meeting of the Commission. This regulatory measure was not adopted, but provides an example of a possible ‘flexible multi-annual measure’.

3. **Current Request for Scientific Advice from ICES**

3.1 To date the majority of the scientific information and advice used to support the development of regulatory measures has been provided by ICES in response to an annual request which is developed by the SSC, approved by the Commissions and adopted by the Council.

3.2 NASCO’s relationship with ICES is the subject of a Memorandum of Understanding (MoU) which details the administrative and financial arrangements concerning the provision of advice. Under the MoU, ICES agrees to provide advice which is independent and free from political influence and which has been peer-reviewed through the relevant ICES procedure. The implications of any changes to this relationship with ICES are not considered here, but there could be cost savings associated with requesting multi-annual advice.

3.3 Currently an annual request for advice is made according to a standard format for each Commission area. In addition, specific requests for information and advice may be included. In 2005, for the first time, ICES was requested to provide multi-annual
catch advice for the years 2006 - 2008 for each Commission area. This paper assumes that multi-annual advice covering a three-year period will be available to NASCO in 2006 and in subsequent years. There are also requests for advice relevant to the entire North Atlantic area.

3.4 The timescale for preparing the scientific advice is quite tight: national scientists must compile current data on their fisheries and stocks before the end of March; the ICES Working Group on North Atlantic Salmon (WGNAS) meets in early April to conduct assessments and develop responses to NASCO’s requests; a sub-group established by the Advisory Committee on Fishery Management (ACFM) reviews the WGNAS report towards the end of April and provides the ICES advice to NASCO in early May; this must be circulated to NASCO’s Parties for their consideration before the annual meeting in early June.

4. Catch Advice Needs

4.1 The nature and form of the scientific advice required by NASCO (i.e. who provides it, how frequently and what it contains) will depend in part on which of the four types of regulatory measure is established.

Annually regulatory measures

4.2 If the Commissions continue to set annual regulatory measures, it is envisaged that they will continue to require annual catch advice. It would be possible to use multi-annual catch advice from ICES, as now requested, as a basis for establishing annual regulatory measures, in each of a number of years but this might be considered inconsistent with the principle of using the best available scientific information. It is assumed that if there is an annual request to ICES for catch advice to inform establishment of annual regulatory measures then the other information and advice needs would also continue to be sought from ICES.

Adjusted multi-annual regulatory measures

4.3 A similar situation will apply for adjusted multi-annual agreements since these require formal review, updating or recalculation each year. However, it may be possible for the advice requested in intervening years to be less comprehensive and targeted at the specific requirements of the review.

Fixed multi-annual regulatory measures

4.4 If the Commissions agreed fixed multi-annual measures NASCO would require multi-annual catch advice in the years in which such measures are negotiated. In the intervening years, catch advice would not be needed and the form and nature of the other advice will depend on NASCO’s other information needs and the mechanisms chosen to obtain this information. However, in the event that the Party in whose area of fisheries jurisdiction the measure applies objected to the measure under Article 13 of the Convention, there may be a need for extraordinary meetings of the relevant Commission and an additional request for scientific advice to ICES to inform the negotiations. Depending on the timing of the objection it may or may not be accommodated within the ICES work schedule and may result in additional costs to NASCO. This concern would not apply if a truly fixed multi-annual measure was
agreed under which the Party in whose area of fisheries jurisdiction applies waived its right to object under Article 13.

*Flexible multi-annual measures*

4.5 If the Commissions were to agree flexible multi-annual measures, then unless the continuing validity of the measures was questioned, they would only need multi-annual catch advice in the years in which such measures were negotiated. In the intervening years, catch advice may not be needed.

4.6 The timing of any ‘opt-out’ in such agreements is important. If it is set too late there may not be adequate time for the compilation of the required data and for the catch advice to be developed to inform the negotiations. In order to allow time for preparations for a WGNAS meeting, the earlier in the year the ‘opt-out’ date could be set the better, provided the data are available. ‘Opt-outs’ later than February may preclude the development of new peer-reviewed catch advice in time for the Annual Meeting. It is unclear under a flexible measure whether the ‘opt-out’ replaces or is additional to the objection procedure in Article 13.

4.7 Since some flexible multi-annual measures could be effectively ‘open-ended’, a limited review to assess the stability of previous catch advice may be desirable. Either the Commissions could introduce a mechanism for this review through ICES or the Parties might undertake their own review. In this regard ICES has been requested to provide an assessment of the minimum information needed which would signal a significant change in the previously provided catch advice for each Commission. One approach would be for the Commissions to seek a limited annual assessment through ICES of the most recently available data to evaluate the stability or otherwise of the previous catch advice. If this limited assessment was carried out, say, in February, prior to the ‘opt-out’ date, and indicated that the catch advice was no longer valid, then a full assessment could be undertaken by the WGNAS. This arrangement could, however, introduce some uncertainty and additional costs to the ICES work programme.

5. **Nature and form of advice in “non-catch advice” years**

5.1 If the WGC and NEAC continue to set annual measures or adjusted multi-annual measures they will continue to need annual catch advice to inform the negotiations. However, if they were able to agree multi-annual measures on the basis of multi-annual advice, there could be years in which no catch advice was required, particularly in the case of truly fixed multi-annual regulatory measures (i.e. where a Party waives its right to denounce a regulation under Article 13). There are uncertainties with other multi-annual measures regarding the need for catch advice because of the uncertainties introduced by objection or ‘opt-out’ procedures. The number of years in which catch advice is not needed could be increased if the Commissions co-ordinated the implementation of measures. For example, if the catch advice requested in 2005 for the years 2006 – 2008 was used to set fixed multi-annual measures by the WGC (2006 – 2008) and the NEAC (2007 – 2009), no catch advice would be needed in either 2007 or 2008 unless there was an objection to the measure. It is assumed that the NAC will not set regulatory measures but will continue to seek multi-annual catch advice to inform its work.
5.2 While some concerns were expressed at the consultation meetings about reducing the requests to ICES at a time when the status of some stocks is critically low, the catch advice has been relatively unchanged for some years and there may be benefits to the quality of the catch advice in the longer-term from reducing the demands on the WGNAS. In the absence of a request for catch advice in some years (or a reduction in the request), the WGNAS may be able to devote greater time to the development and refinement of its assessment techniques. However, some such developments (e.g. development of a forecast model for NEAC stocks) are likely to require significantly greater investment of time than is available at the WGNAS meeting. The advantage to the WGNAS of having time to refine its assessment techniques has been noted by the past Chairmen of both the ACFM and of the WGNAS. The assumption is that in the absence of a request for catch advice, there would be continuing commitment to the WGNAS by salmon assessment biologists and that adequate time would be scheduled for its work. In the absence of a request for catch advice it may also be possible for the WGNAS to devote time to specific topics that might be of relevance to NASCO. These might include work related to the SALSEA programme, such as improving coordination of the information derived from index rivers. However, the time available to the WGNAS for these tasks may be limited and the amount of time would be less if the NEAC and WGC measures were not coordinated with regard to the need for catch advice.

5.3 In the Strategic Approach for NASCO’s ‘Next Steps’, the Commissions have been asked to consider whether regulatory measures could be adopted and scientific advice from ICES sought on a biennial or multi-annual basis. The implication here is that in some years there would be no request at all to ICES and that either the other information and advice would not be needed in those years or it would be obtained by other means. NASCO currently requests from ICES, on an annual basis, considerable information other than catch advice (e.g. information on catches, farmed salmon production, reporting on significant developments and on new or emerging threats, documenting events in the fisheries and stock status, identification of data deficiencies and research needs, evaluation of management measures, estimates of by-catch). Some of this information is also provided directly to the Council and Commissions by NASCO Parties (e.g. catch statistics, unreported catches, description of management measures, and some information on stock status and events in the fisheries). Under the ‘Next Steps’ process NASCO is considering moving to more in-depth, but less frequent, reporting on implementation of its agreements. Furthermore, the homewater Parties in NASCO are being asked to report on management measures established for fisheries and their expected effects.

5.4 Any such change towards a fully multi-annual request to ICES will need careful consideration by the Council and Commissions to ensure that NASCO continues to have all the information and advice it needs to work effectively. If the WGNAS continued to meet in those years when there was no request at all from NASCO it would have more time to consider its assessment approaches and broader aspects of work relevant to NASCO. One concern raised by the ICES representative at NASCO’s Annual Meeting in Vichy was that in the absence of a request for advice from NASCO, there might not be commitment to a WGNAS meeting, and the databases essential to the provision of advice might not be updated. This issue would need to be discussed with ICES at the annual meeting of client Commissions and the ICES Management Committee on the Advisory Process (MCAP) to ensure that
mechanisms are in place to maintain the databases in the event that the WGNAS did not meet annually.

5.5 At the ‘Next Steps for NASCO’ Task Force meeting held in February (see CNL(06)15) there was a general recognition that it would be beneficial to move to multi-year regulatory measures, not least so as to free up time for Special Sessions. However, the Task Force considered that this may or may not be accompanied by a reduction in the frequency of scientific advice. The Task Force stressed the importance of the continued maintenance of the scientific databases and ensuring the availability of information on any changes in abundance that would require changes to its regulatory measures.

5.6 In summary, the following options might be considered by the Council and Commissions in deciding on future information and advice needs:

Annual Measures

Continue to request catch advice from ICES on an annual basis to inform negotiation of regulatory measures together with other information and advice to inform the broader aspects of NASCO’s work.

Adjusted Multi-Annual Measures

Continue to request catch advice from ICES (which may be less comprehensive in review years) on an annual basis to inform review of regulatory measures together with other information and advice to inform the broader aspects of NASCO’s work.

Fixed Multi-Annual Measures

Option 1: Request multi-annual catch advice from ICES to inform negotiation of regulatory measures; continue to request annually from ICES information and advice to inform the broader aspects of NASCO’s work;

Option 2: Request multi-annual catch advice from ICES to inform negotiation of measures; request multi-annual information and advice from ICES to inform the broader aspects of NASCO’s work and consider mechanisms for obtaining information and advice (other than catch advice) directly from the Parties in the intervening years.

Flexible Multi-Annual Measures

Option 1: Request multi-annual catch advice from ICES to inform negotiation of measures; continue to request annually from ICES information and advice to inform the broader aspects of NASCO’s work; only request catch advice in intervening years if triggered by the opt-out by a Commission Member;

Option 2: As Option 1 but also seek a limited annual assessment from ICES to inform Commission Members regarding the stability of the previous catch advice;
Option 3: Request multi-annual catch advice from ICES to inform negotiation of measures, request multi-annual information and advice from ICES to inform the broader aspects of NASCO’s work and consider mechanisms for obtaining annual information and advice (other than catch advice) directly from the Parties in the intervening years;

Option 4: As Option 3 but also seek a limited annual assessment from ICES to inform Commission Members regarding the stability of the previous catch advice.

6. Conclusions

6.1 NASCO seeks to base its management decisions on the best available scientific information and advice. A move to multi-annual regulatory measures, as proposed by the Council in the light of the ‘Next Steps for NASCO’ Working Group’s recommendations, might make more time available at NASCO meetings for information exchange on inter alia best practice in managing the many pressures on the resource. Such a change would also offer new options with regard to the requests for advice from ICES, including moving to a fully multi-annual request for advice, and could result in improvements to assessments provided to NASCO. It is possible that costs could be reduced, but the opt-out of Parties from multi-year agreements could result in increased costs.

6.2 The options have been outlined in this discussion document and will need careful consideration by the Council and Commissions in consultation with ICES. In light of feedback from the Council and Commissions as to the information and advice needs and the decisions on regulatory measures taken at the Twenty-Third Annual Meeting, the SSC will be able to reformulate the request for advice so as to ensure that NASCO continues to have the information and advice it needs from ICES to inform its decision-making. The Council and Commissions may wish to consider mechanisms for obtaining the information and advice they need if the decision was taken to move to a fully multi-annual request from ICES.
ANNEX 14

CNL(06)13

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 and landings, including unreported catches by
       country and catch and release, and production of farmed and ranched Atlantic salmon
       in 2006;
   1.2 report on significant new or emerging threats to, or opportunities for, salmon
       conservation and management;
   1.3 provide a framework of indicators which would be used to identify any significant
       change in the previously provided multi-annual management advice for each
       Commission area;
   1.4 examine associations between changes in biological characteristics of all life stages of
       Atlantic salmon and variations in marine survival ¹;
   1.5 provide a compilation of tag releases by country in 2006;
   1.6 identify relevant data deficiencies, monitoring needs and research requirements ²

2. With respect to Atlantic salmon in the North-East Atlantic Commission area:
   2.1 describe the key events of the 2006 fisheries and the status of the stocks; ³
   2.2 provide any new information on the extent to which the objectives of any significant
       management measures introduced in recent years have been achieved;
   2.3 further develop the age-specific stock conservation limits where possible based upon
       individual river stocks;
   2.4 provide annual catch options or alternative management advice for 2008-2010, if
       possible based on forecasts of PFA for northern and southern stocks, with an
       assessment of risks relative to the objective of exceeding stock conservation limits and
       advise on the implications of these options for stock rebuilding; ⁴
   2.5 provide estimates of by-catch and non-catch fishing mortality of salmon in pelagic
       fisheries with an assessment of impacts on returns to homewaters.

3. With respect to Atlantic salmon in the North American Commission area:
   3.1 describe the key events of the 2006 fisheries (including the fishery at St Pierre and
       Miquelon) and the status of the stocks; ³
   3.2 provide any new information on the extent to which the objectives of any significant
       management measures introduced in recent years have been achieved;
   3.3 update age-specific stock conservation limits based on new information as available;
   3.4 provide annual catch options or alternative management advice for 2007-2010 with an
       assessment of risks relative to the objective of exceeding stock conservation limits and
       advise on the implications of these options for stock rebuilding; ⁴
   3.5 provide a comprehensive description of coastal fisheries including timing and location
       of harvest, biological characteristics (size, age, origin) of the catch, and potential
       impacts on non-local salmon stocks.
4. With respect to Atlantic salmon in the West Greenland Commission area:

4.1 describe the events of the 2006 fisheries and the status of the stocks; 3, 5
4.2 provide any new information on the extent to which the objectives of any significant management measures introduced in recent years have been achieved;
4.3 provide annual catch options or alternative management advice for 2007-2009 with an assessment of risk relative to the objective of exceeding stock conservation limits and advice on the implications of these options for stock rebuilding; 4

Notes:

1. With regard to question 1.4, there is interest in determining if declines in marine survival coincide with changes in the biological characteristics of juveniles in fresh water or are modifying characteristics of adult fish (size at age, age at maturity, condition, sex ratio, growth rates, etc.).
2. NASCO’s International Atlantic Salmon Research Board’s inventory of on-going research relating to salmon mortality in the sea will be provided to ICES to assist it in this task.
3. In the responses to questions 2.1, 3.1 and 4.1 ICES is asked to provide details of catch, gear, effort, composition and origin of the catch and rates of exploitation. For homewater fisheries, the information provided should indicate the location of the catch in the following categories: in-river; estuarine; and coastal. Any new information on non-catch fishing mortality, of the salmon gear used, and on the by-catch of other species in salmon gear, and on the by-catch of salmon in any existing and new fisheries for other species is also requested.
4. In response to questions 2.4, 3.4 and 4.3 provide a detailed explanation and critical examination of any changes to the models used to provide catch advice.
5. In response to question 4.1, ICES is requested to provide a brief summary of the status of North American and North-East Atlantic salmon stocks. The detailed information on the status of these stocks should be provided in response to questions 2.1 and 3.1.
Council

CNL(06)16

Report of the ‘Next Steps for NASCO’ Task Force
Background

1. To mark NASCO’s Twentieth Anniversary, the Council had established a Working Group on the ‘Next Steps for NASCO’ which met during 2004 and 2005 and presented its recommendations to the Council at last year’s Annual Meeting in Vichy. In the light of these recommendations, the Council adopted a Strategic Approach for NASCO’s Next Steps, CNL(05)49, which contained some decisions for immediate implementation and others which required further consideration to effect their implementation. In order to further consider the latter recommendations, the Council established a Task Force, under the Chairmanship of Mr Gudmundur Helgason (Iceland), which met at the invitation of the Secretaria General de Pesca in Cangas de Onis, Asturias, Spain, during 31 January – 3 February 2006. The main tasks for this Task Force were to further develop recommendations in relation to implementation, commitment and accountability (Decisions 20 – 22 of CNL(05)49) and transparency and inclusivity (Decision 23 of CNL(05)49), two central themes of the Strategic Approach. The report of the meeting, NSTF(06)13, is attached.

Implementation, Commitment and Accountability

2. Under the Strategic Approach, the Council had decided that:

- each Party or relevant jurisdiction should develop an Implementation Plan for meeting the objectives of NASCO’s agreements and report on the steps taken pursuant to the Plan;
- reporting on progress should be conducted in a Special Session so as to allow direct NGO involvement, greater opportunity for discussion, and critical review of the reports;
- an ad hoc group should be established to support the President in determining the conclusions of the Special Session at which progress reports are made.

3. The Task Force agreed that Implementation Plans need to be clear and comprehensive, but focused on high-level commitments rather than specific actions. It was agreed that to avoid duplication of reporting all elements on which the Parties currently report to the Council should, in future, be incorporated in annual reports under the Implementation Plans, and that in addition there would be reporting in Special Sessions on NASCO’s three focus areas (fisheries management, habitat and aquaculture, etc.). It was recognised that while it would be desirable to develop a common format for the Implementation Plans, there would inevitably be differences in the approaches adopted by the Parties and relevant jurisdictions with regard to the measures taken. The Task Force therefore developed ‘Guidelines for the Preparation of Implementation Plans and for Reporting on Progress’ and these are contained in Annex 3 of the attached report. The Council is asked to consider and adopt these guidelines.
4. The Task Force agreed that it would be desirable for the Parties to report on progress in development of their Implementation Plans at a Special Session during the Council’s Twenty-Third Annual Meeting in Finland and that following development of the plans, they should be subject to a thorough critical review by the ad hoc Review Group which would report back to the Council before its 2007 Annual Meeting. The Task Force noted that, depending on progress with the Implementation Plans, it may be possible to initiate a Special Session on focus areas in 2007 rather than 2008. The Task Force’s recommendations on the structure and functioning of the ad hoc Review Group, and a proposed schedule of activities, are contained in Annex 5 of the attached report. The Council is asked to consider and adopt these recommendations.

Transparency and Inclusivity

5. The Task Force developed its recommendations in relation to NGO participation in NASCO’s meetings and these are contained in Annex 4 of the attached report. The Council is asked to consider and adopt these changes to the conditions governing observer attendance at its meeting.

Conclusions

6. Implementation, commitment and accountability and transparency and inclusivity are central elements of the ‘Next Steps’ process and the Task Force has developed recommendations which the Council is asked to consider. In particular, the critical review process is essential in ensuring that the agreements made in NASCO, which our stakeholders felt were good, are fully implemented. It was the Council’s intention that the Task Force’s recommendations would be applied at the Twenty-Third Annual Meeting.

Secretary
Edinburgh
7 April 2006
1. Opening of the meeting, and overview and discussion of the Next Steps process

1.1 The Chairman, Mr Gudmundur Helgason (Iceland), opened the meeting, welcomed members of the Task Force to Spain and thanked the Secretaria General de Pesca for hosting the meeting and for the arrangements made. He welcomed the Chairman of NASCO’s NGOs, Mr Chris Poupard, and indicated that he was welcome to participate in all the Task Force’s plenary sessions. He referred to the progress made to date in charting out the Next Steps for NASCO and to the adoption by the Council at its Twenty-Second Annual Meeting of a Strategic Approach for NASCO’s ‘Next Steps’, CNL(05)49 (hereinafter referred to as the ‘Strategic Approach’). Under this Strategic Approach it is stated that NASCO’s vision is to pursue the restoration of abundant Atlantic salmon stocks throughout the species’ range with the aim of providing the greatest possible benefits to society and individuals. To achieve this vision, NASCO will inter alia be committed to the measures and agreements it develops and actively review progress with Implementation Plans, and ensure transparency in its operations and enhance the use of NGO and stakeholder knowledge and experience. He indicated that the Task Force had been asked to comprehensively develop recommendations in relation to these two central themes of the Strategic Approach. He suggested that in carrying out its work the Task Force might wish to bear in mind the philosophical view that while simple solutions may not always be best, the best solutions are always simple.

1.2 Mr Poupard stated that the NGOs applauded the approach taken by NASCO with regard to the ‘Next Steps’ process and indicated that they are delighted with the progress to date. He noted that the NGOs had favoured changing NASCO’s mandate but recognised the difficulties of such a change and the possibility of unintended consequences. The NGOs had, therefore, supported the alternative of developing Implementation Plans. He stressed that improving implementation, commitment and accountability are central to the Next Steps process and it is important that the Task Force’s recommendations on this issue enhance the way forward for NASCO.

1.3 The Task Force adopted its agenda, NSTF(06)9 (Annex 1), after combining items 1 and 2 of the Draft Agenda.

1.4 A list of participants is included in Annex 2.

2. NASCO Agreements: Implementation, commitment and accountability

2.1 Under the Strategic Approach the Council had decided that:

- each Party or relevant jurisdiction should develop an Implementation Plan for meeting the objectives of NASCO’s agreements and report on the steps taken pursuant to the Plan. These arrangements would be evaluated after a trial period;
- reporting on progress should be conducted in a Special Session so as to allow direct NGO involvement, greater opportunity for discussion, and critical review of the reports;

- an ad hoc group should be established to support the President in determining the conclusions of the Special Session at which progress reports are made.

2.2 Background papers in relation to implementation, commitment and accountability were tabled by the Secretariat (NSTF(06)4), Iceland (NSTF(06)5), the European Union (NSTF(06)6), and Norway (NSTF(06)7). These papers contained a number of common themes with regard to the key elements to be included in Implementation Plans and on reporting arrangements. The Task Force discussed a number of issues in relation to implementation, commitment and accountability including whether there should be just one Implementation Plan for each Party or jurisdiction covering all of NASCO’s agreements, the scope and key elements to be included in the plans, the arrangements and standards for reporting, and approaches to avoid duplication of reporting. The Task Force agreed to consider the composition and functioning of the ad hoc Review Group under item 3 below. The Task Force agreed that Implementation Plans needed to be clear and comprehensive but focused on high-level commitments rather than specific actions and should facilitate evaluation of progress in achieving NASCO’s overall goals and those of the three main agreements (management of fisheries, habitat protection and restoration, and aquaculture, introductions and transfers and transgenics). The Task Force recognised that while it would be desirable to develop a common format for the Implementation Plans there would inevitably be differences in the approaches adopted by the Parties and relevant jurisdictions with regard to the measures taken.

2.3 The Task Force recognized that the present reporting arrangements using the Council’s twenty-page questionnaire were not transparent, did not facilitate information exchange on best practice and were not challenging. It was recognized that to avoid duplication in reporting, consideration might be given to including reporting under Articles 14 and 15 of the Convention and by homewater Parties (see paragraph 5.3 below) in the annual reporting arrangements under the Implementation Plans.

2.4 The Task Force agreed to develop its recommendations on Implementation Plans and reporting through a sub-group chaired by Mr Ted Potter (European Union). The sub-group developed ‘Guidelines for the Preparation of Implementation Plans and for Reporting on Progress’, NSTF(06)10 (Annex 3). The Task Force recommends adoption of these guidelines by the Council.

2.5 The Task Force discussed the timescale for development of Implementation Plans and recognized that it would be desirable for the Parties to report on progress in developing their plans at a Special Session during the Council’s next Annual Meeting in Finland. Following development of the plans the Task Force believes they should be subject to a thorough critical review by the ad hoc Review Group. This critical review process would also apply to subsequent reporting at Special Sessions on focus areas (i.e. on management of fisheries, habitat protection and restoration, and minimising impacts of aquaculture, introductions and transfers and transgenics) but
not to the annual progress reports on the Implementation Plans which would be presented to the Council. A proposed process and timetable for the reviews is referred to in paragraph 3.3 below. The need to allocate sufficient time to the Special Sessions was recognized. The Task Force noted the importance of moving in this new direction in a flexible manner with a view to making adjustments as required. In this regard, it was recognized that the process envisaged is iterative with the Parties adapting their approaches as necessary in the light of the reviews. Mr Poupard indicated that he welcomed the development of Implementation Plans in order to improve accountability, but stressed the need for there to be clear commitments in the Plans and timescales for their achievement.

3. **Transparency and inclusivity**

3.1 Under the Strategic Approach, the Council agreed to seek ways to increase NGO involvement in its meetings by amending the current NGO observer rules to provide discretion to the NASCO President and Commission Chairmen to recognise requests from the floor by observers on any agenda item under discussion before and after debate by the Parties on that item. A background paper on possible amendments to the rules governing the role of NGO observers was tabled by the Secretariat, NSTF(06)3. The Task Force discussed a number of issues concerning NGO participation at NASCO meetings, including the procedures for admitting NGOs, their representation at meetings and the possibility of charging an observer fee. The Task Force recognised that these issues were beyond its mandate but were important issues that might be considered in the future by the Council. The Task Force also discussed the structure and functioning of the *ad hoc* Review Group.

3.2 The Task Force agreed to develop its recommendations in relation to the conditions governing NGO attendance and the structure and functioning of the *ad hoc* Review Group through a sub-group chaired by Mr Guy Beaupré (Canada). The Task Force’s recommendations on amendments to the conditions for NGO attendance are contained in NSTF(06)11 (Annex 4). With regard to Condition 4, the Task Force discussed whether or not there should be additional opportunities for NGO participation by allowing interventions during as well as before and after debate of agenda items by the Parties. The Task Force decided to adhere to the mandate outlined in the Strategic Approach, but recommends that this issue be considered further by the Council. The Task Force also discussed the issue of whether or not NGOs should be able to make interventions on all Council and Commission agenda items and decided that this should be the case with the exception of those agenda items dealing with financial and administrative issues. The Task Force also considered the largely symbolic issue of seating arrangements for the NGO representatives making interventions at the meetings. Mr Poupard indicated that he would prefer that the existing arrangements be maintained rather than the NGO representatives being seated at the centre table as the existing arrangement facilitates consultations among the NGO Group. The Task Force recognised that these conditions may be further reviewed by the Council in future in the light of experience with the new arrangements.

3.3 The Task Force discussed the structure and functioning of the *ad hoc* Review Group and agreed that it should comprise a mix of participants from the Parties and the NGOs that will ensure its effectiveness, efficiency and credibility. The Task Force’s recommendations on the structure and functioning of the *ad hoc* Review Group and a
proposed schedule of activities are contained in NSTF(06)12 (Annex 5). The Task Force recognised that the effectiveness of the review process was very dependent on the deadlines in this schedule being rigidly adhered to by the Parties. As an alternative option to the schedule outlined in Annex 5, the Task Force noted that, pending progress with the Implementation Plans, it may be possible to initiate the Special Sessions on focus areas in 2007 rather than 2008. There is a need to ensure, however, that given the importance of the Implementation Plans and the annual reports submitted pursuant to these plans, adequate time is available in 2006 and 2007 to dedicate to these issues. This decision may be reviewed at the 2006 Annual Meeting in the light of the Parties’ experience in drafting their Implementation Plans.

4. Progress Report on Public Relations

4.1 Under the Strategic Approach (Decisions 13 – 18) the Council had agreed to create a Public Relations Group which, with input from NASCO’s accredited NGOs, would develop and implement a clear public relations strategy aimed at enhancing NASCO’s profile and ensuring the most effective publicity for its work and achievements. The Council had also agreed to develop links with educational programmes and to consider the need for additional reports to improve public understanding of information relevant to NASCO’s activities. The Secretariat was also asked to engage professional expertise to produce media products and to improve the Organization’s website, and funds had been made available through both the 2005 and 2006 budgets for public relations work.

4.2 The Chairman noted that while the Council had not asked the Task Force to advise on public relations, it would be useful to have a report on progress and an initial exchange of views. The Secretary reported that he had engaged a firm of professional media consultants, Porter Novelli, to undertake a trial public-relations exercise to raise NASCO’s profile. A factsheet on NASCO had been developed and some interviews conducted with journalists which had led to some articles about NASCO appearing in a UK national newspaper and a trade journal, and other articles were expected. The Secretary indicated that all media articles resulting from the pilot study will be circulated to Heads of Delegations. Some initial lessons had been learned and, based on the pilot trial, the consultants’ advice on a media strategy for NASCO would be presented to the Public Relations Group. He asked for views from the Parties and the Chairman of the NGOs as to the composition and working methods of the Public Relations Group. He advised the Task Force that a motion supporting NASCO is to be tabled in the Scottish Parliament in March. Such initiatives may be a very effective way of raising NASCO’s public and political profile. The Parties asked that if further articles are published in the media, copies be made available to Heads of Delegations at the earliest opportunity.

4.3 Mr Poupard stated that NASCO’s NGOs, particularly those from North America, have considerable expertise and experience in public relations work and that they support a partnership with NASCO through the Public Relations Group with the objective of raising the Organization’s profile. He suggested that this was perhaps a more appropriate approach than employing professional public relations advisors at this stage.
4.4 The Task Force recognised that there may be a need for a mix of expertise on the Public Relations Group, including salmon biologists and managers, media experts from the Parties and representatives of the NGOs. The Chairman indicated that he would be willing to consult Heads of Delegations with the aim of ensuring an appropriate mix of expertise on the Group and that this matter would be considered further at the next Annual Meeting. The Task Force also recognised that the recent publication ‘NASCO’s Twenty-Year Milestones and Next Steps – A Vision for the Future’ was a very useful summary of NASCO’s work and future challenges and should be widely circulated. This action alone could raise NASCO’s profile considerably.

5. Other aspects relating to the Strategic Approach

(a) Consideration of a Ministerial Conference supporting salmon conservation

5.1 In the Strategic Approach (Decision 2), the Council agreed to explore the feasibility of arranging a Ministerial Conference to strengthen the Parties’ commitment to the conservation of wild salmon through the NASCO Convention.

5.2 The Chairman reminded the Task Force that at the Council’s last Annual Meeting different views had been expressed by the Parties about the feasibility of organizing a Ministerial Conference and that it might, therefore, assist the Council in considering this further if the Task Force could have a general discussion on this issue. The Task Force recognised that organising a Ministerial Conference on salmon would be a very significant undertaking and there would be a need to have clear objectives for such a conference before proceeding, e.g. to launch the Implementation Plans or in relation to the SALSEA programme. Some Parties felt that it would be easy to achieve but some would find it more difficult. So while there was a degree of interest in the principle of such a conference the Task Force did not believe it would be feasible at present. If, at a later date, a Ministerial Conference was proposed, it was stated that the NGOs could play a role in influencing participation by Ministers. The Task Force discussed the possibility of salmon issues being incorporated onto the agenda for the annual North Atlantic Fisheries Ministers’ Conference. It was recognised, however, that not all NASCO Parties are represented at this conference and for some Parties it is the Minister of Agriculture or of the Environment who has the responsibility for salmon management. There might also be opportunities to raise salmon issues when two or more Ministers meet.

(b) Format for reporting by homewater Parties to Commissions on their management measures

5.3 One of the key issues identified in the Strategic Approach with regard to management of salmon fisheries is the need to explore opportunities to improve the fairness and balance in management of distant-water fisheries. The Council had, therefore, decided that the homewater Parties should inform the relevant NASCO Commission of the management measures established or envisaged and their expected effects (Decision 3). It was agreed that a format should be developed by the Secretariat in conjunction with the Task Force. The Secretary introduced paper NSTF(06)8 which outlined options for such reporting. The Task Force recognised that there is already a considerable reporting burden on the Parties and that the challenge was to ensure that
information was made available to allow Denmark (in respect of the Faroe Islands and Greenland) to review the measures taken without duplication of existing reporting and without the volume of information being overwhelming. In this regard, the ‘Guidelines for the Preparation of Implementation Plans and for Reporting on Progress’ referred to in paragraph 2.4 of this report indicate that the annual report on the Implementation Plan should include details of management measures established or envisaged for homewater fisheries and their expected effects. The representative of Denmark (in respect of the Faroe Islands and Greenland) confirmed that this reporting arrangement was adequate to allow his delegation to assess fairness and balance in management measures.

(c) Development of multi-year regulatory measures/requests for scientific advice

5.4 In the Strategic Approach, the Council had asked the Commissions of NASCO to consider whether regulatory measures for fisheries could be adopted, and scientific advice from ICES sought, on a biennial or multi-year basis (Decision 4). The Standing Scientific Committee (SSC) had been asked to prepare a discussion document on the options for changing the request for scientific advice in the event that multi-year regulatory measures are agreed and to report back to the Parties before the next Annual Meeting. The Chairman of the SSC indicated that a draft discussion document had been developed and was presently with the SSC for its consideration. It outlined a number of options for changing the request to ICES for scientific advice in the event that multi-annual measures were adopted. However, the existence of objection procedures under Article 13 of the Convention and the possible ‘opt-out’ arrangements in flexible measures could create uncertainty about the need for catch advice in any year during a multi-annual measure. Any proposal to change the frequency of the catch advice would, therefore, need careful consideration by the Parties and consultations with ICES to ensure that NASCO continues to have the best advice on which to base establishment of regulatory measures and to review the continuing validity of multi-annual measures.

5.5 There was general recognition that it would be beneficial to have multi-year regulatory measures, not least so as to free up some time for Special Sessions. Successful agreement of multi-year regulatory measures, however, may or may not be accompanied by a reduction in the frequency of scientific advice. The Parties stressed the importance of the continued maintenance of the scientific databases and ensuring the availability of information on change in abundance that would require changes to the measure.

6. Any other business

6.1 There was no other business.

7. Report of the meeting

7.1 The Task Force agreed a report of the meeting.
8. **Close of meeting**

8.1 Mr Poupard thanked the Task Force for the open and transparent manner in which it had conducted its work and indicated that he would be reporting positively on the outcome of the meeting to the NGOs. He indicated that he was very satisfied with the recommendations developed.

8.2 The Chairman thanked the Spanish hosts for the excellent and enjoyable arrangements made and the members of the Task Force for their contributions. He wished all participants a safe journey home.
Annex 1 of NSTF(06)13

NSTF(06)9
Task Force on Implementation of the Next Steps for NASCO
Hotel Parador de Cangas de Onis, Asturias, Spain,
31 January – 2 February 2006

Agenda

1. Opening of the meeting and Overview and discussion of the Next Steps process

2. Decisions requiring further consideration

2.1 NASCO Agreements: Implementation, commitment and accountability
(a) Implementation Plans: Scope and key elements (Decision 20 of CNL(05)49)
(b) Reporting and critical review in Special Sessions (Decision 21)
(c) Structure, role and functioning of an ad hoc “review group” (Decision 22)

2.2 Transparency and inclusivity
(a) Amendments to current rules governing the role of NGO observers (Decision 23)


4. Elements for immediate implementation that may need clarification

(a) Consideration of a Ministerial Conference supporting salmon conservation (Decision 2)
(b) Format for reporting by homewater Parties to Commissions on their management measures (Decision 3)
(c) Development of multi-year regulatory measures/requests for scientific advice (Decision 4)
(d) Other elements

5. Development of recommendations to Council

6. Any other business

7. Report of the meeting

8. Close of meeting
**Annex 2 of NSTF(06)13**

**Task Force on Implementation of the Next Steps for NASCO**

**List of Participants**

**CANADA**

- Mr Guy Beaupré | Department of Fisheries and Oceans, Ottawa, Ontario
- Mr John Bird | Bird Holdings Ltd, Fredericton, New Brunswick
- Mr Serge Tremblay | Ministère des Ressources Naturelles et de la Faune du Québec, Québec, Canada
- Mr Tim Young | Department of Fisheries and Oceans, Ottawa, Ontario

**DENMARK (IN RESPECT OF THE FAROE ISLANDS AND GREENLAND)**

- Mr Emanuel Rosing | Department of Fisheries and Hunting, Nuuk, Greenland
- Ms Mira Ann Kalsi | Department of Fisheries and Hunting, Nuuk, Greenland
- Mr Kaj P Mortensen | Ministry of Foreign Affairs, Faroe Islands

**EUROPEAN UNION**

- Ms Carmen Beraldi | Secretaria General de Pesca, Madrid, Spain
- Ms Paloma Carballo | Ministerio de Agricultura y Pesca, Madrid, Spain
- Mr Richard Cowan | DEFRA, London, UK
- Mr David Dunkley | SEERAD, Edinburgh, UK
- Mr Alan Gray | European Commission, Brussels, Belgium
- Mr Pentti Munne | Ministry of Agriculture and Forestry, Department of Fisheries and Game, Helsinki, Finland
- Mr Ted Potter | Centre for Environment, Fisheries and Aquaculture Science, Lowestoft, UK

**ICELAND**

- Mr Guðmundur B Helgason | Ministry of Agriculture, Reykjavik
- Mr Arni Isaksson | Directorate of Freshwater Fisheries, Reykjavik
NORWAY
Mr Raoul Bierach Directorate for Nature Management, Trondheim
Mr Arne Eggereide Directorate for Nature Management, Trondheim

RUSSIAN FEDERATION
Dr Svetlana Krylova FSO “Murmanrybvod”, Murmansk
Dr Boris Prischepa PINRO, Murmansk
Dr Sergei Prusov PINRO, Murmansk
Mr Rafael Ruzheinikov FSO “Murmanrybvod”, Murmansk
Ms Elena Samoylova PINRO, Murmansk

USA
Ms Kimberly Blankenbeker National Marine Fisheries Service, Silver Spring, Maryland
Ms Mary Colligan National Marine Fisheries Service, Gloucester, Massachusetts
Ms K. Alexandra Curtis Office of Marine Conservation & Oceans Affairs, Washington DC, USA
Ms Jessica Pruden National Marine Fisheries Service, Gloucester, Massachusetts

NON-GOVERNMENT ORGANIZATIONS
Mr Chris Poupard Chairman of NASCO NGO Group

SECRETARIAT
Dr Malcolm Windsor Secretary
Dr Peter Hutchinson Assistant Secretary
**Purpose of Implementation Plans**

NASCO and its Parties have agreed to adopt and apply a Precautionary Approach to the conservation, management and exploitation of salmon in order to protect the resource and preserve the environments in which it lives. To this end, NASCO has adopted a number of Resolutions and Agreements which address the Organization’s principal areas of concern for the management of salmon stocks. The Organization has also developed Guidelines on topics which have a more general relevance to salmon management, including the consideration of social and economic factors in decisions under the Precautionary Approach and the development of stock rebuilding programmes.

As part of the ‘Next Steps’ process, NASCO has determined that it needs to develop a simpler and more transparent approach for reporting on progress on the implementation of these agreements. NASCO has therefore agreed that each Party or relevant jurisdiction should develop an Implementation Plan for meeting the objectives of NASCO’s agreements and should subsequently report to NASCO on actions taken to meet its management objectives.

The Implementation Plans will address NASCO’s overall objective of ensuring the conservation, restoration, enhancement and rational management of salmon stocks, and will be focused around the three main agreements which address fishery management, protection and restoration of habitat, and aquaculture and associated activities. The overall goals of these agreements are summarised below:

**Management of salmon fisheries**

The goals for the management of salmon fisheries for NASCO and its Parties are to promote the diversity and abundance of salmon stocks and to maintain all stocks above their conservation limits (reference Action Plan for Application of the Precautionary Approach, CNL(99)48).

**Protection and restoration of Atlantic salmon habitat**

The goal for NASCO and its Parties is to maintain and, where possible, increase the current productive capacity of Atlantic salmon habitat.

**Management of aquaculture, introductions and transfers and transgenics**

The goal for NASCO and its Parties is to minimise the possible adverse impacts of aquaculture, introductions and transfers and transgenics on the wild stocks of Atlantic salmon, including working with industry stakeholders, where appropriate.
The Implementation Plans will be subject to critical review by Parties and NGOs by means of an agreed review process. In order for Implementation Plans to be effective it will be important for proposed actions and activities to have measurable outputs. The review process may result in suggestions to modify Implementation Plans to address any concerns expressed.

NASCO has also agreed to modify its reporting procedures to make them clearer and more transparent. The development of Implementation Plans will provide the basis for the preparation of regular reports on the extent to which the proposed actions have been undertaken and objectives have been achieved. These reports will also be subject to review to provide constructive comment on the progress made within each jurisdiction towards meeting the objectives of the Organization.

This document is designed to provide guidance on the structure and content of the Implementation Plans and describe the process that will be adopted for reporting progress to NASCO. It is recognised that the Implementation Plans developed by different jurisdictions may differ significantly depending on the nature and status of stocks, the management regimes in place and other factors.

**Structure and Format of Implementation Plans**

It is important that Implementation Plans are presented in a clear and straight-forward manner so that they are easily understood by both managers and stakeholders. It is anticipated that an Implementation Plan would normally:

- apply to all the stocks/fisheries managed within a jurisdiction;
- apply for a period of at least 5 years, and generally require no annual modification unless circumstances change significantly;
- provide a summary of the management approaches that will be utilised to meet the objectives and the anticipated results, rather than details of specific actions to be applied to individual stocks;
- be consistent with, and adopt approaches specified within, NASCO Resolutions and Agreements;
- take account of NASCO Guidelines as appropriate to the management approach;
- be written in a clear and concise form for easy accessibility and reference (e.g. use numbered paragraphs); and
- describe a process and proposed outputs that are open to critical evaluation.

**Outline Content of Implementation Plans**

It is recognised that Implementation Plans will necessarily reflect the management requirements of different jurisdictions. However, it is proposed that the basic structure of the Implementation Plans should usually include the following key elements:

1. **Introduction**

This section should provide a general picture of the resource and the management structure in place within the relevant jurisdiction. Sub-headings within this section might include:

1.1 objectives of the national management strategy (e.g. may be similar to NASCO Vision);
1.2 nature and extent of resource (e.g. number and size of stocks, special designations, etc.);
1.3 overview of fisheries (e.g. methods, locations, etc.), including the existing management regime (e.g. types of regulations, enforcement activities, etc.);
1.4 management entities involved in fishery regulation and habitat protection/restoration (e.g. who does what and by what means).

2. Status of stocks

This section should describe the current status of stocks for future comparisons. It might provide a brief overview of current status of stocks assessed against reference levels (in accordance with the NASCO Decision Structure). Sub-headings within this section might include:

2.1 abundance (e.g. egg deposition, juvenile densities, and/or returning adults);
2.2 diversity (e.g. age composition, run-timing, etc.);
2.3 threatened or endangered stocks.

3. Threats to stocks, and current management measures

Some river stocks remain below reference levels and are subject to a range of real and potential threats to their status. It is recognised that a wide range of management measures are already in place to address these threats. This section should provide a summary of the threats and outline the existing management measures, with specific reference to the extent to which NASCO’s Resolutions and Agreements have been applied. This information will provide the baseline for developing the management plan described in Section 4, and might be presented in the following sub-sections:

3.1 effects of all salmon fisheries and fisheries taking juvenile or adult salmon as a by-catch (including fisheries in distant and home waters);
3.2 factors affecting estuarine and freshwater salmon habitat;
3.3 impacts of aquaculture, introductions and transfers and transgenics (including diseases and parasites);
3.4 other influences affecting salmon abundance or diversity (including marine environment).

4. Management approach

This section should provide a clear account of the management approach which will be used to address the problems identified in Section 3 over a period of about five years. It is important that the approaches described have measurable outputs against which subsequent reports can be assessed. The approaches should be presented under four headings: management of fisheries; protection and restoration of salmon habitats; management of aquaculture, introductions and transfers; and other influences. In each of these areas, the socio-economic implications of proposed actions should be considered. It will also be appropriate to identify data deficiencies and research needs in relation to each of these focus areas.

- Management of fisheries: to provide a summary of the approach that will be adopted to review and modify fishery regulations including both routine periodic reviews and
the introduction of emergency measures; to include reference to/use of NASCO Decision Structure (SCPA(02)16) as appropriate;
[Subsequent reporting could describe numbers of fisheries for which control measures have been reviewed and actions taken to change regulations.]

- Protect and restore salmon habitat: to provide a summary of the approach that will be adopted to assess estuarine and freshwater habitat quality, identify problems and prioritise remedial actions, taking account of the guidance in the NASCO Plan of Action for the Protection and Restoration of Atlantic Salmon Habitat (CNL(01)51);
[Subsequent reporting could describe numbers of rivers for which habitat problems have been reviewed or habitat plans developed and provide a summary of mitigation, restoration or protection measures introduced.]

- Manage aquaculture, introductions and transfers: to include a summary of the approach that will be adopted to minimise any adverse impacts from aquaculture and control introductions and transfers, in line with the Williamsburg Resolution (CNL(04)54);
[Subsequent reporting could summarise specific actions taken to control introductions and transfers and minimise any adverse impacts from aquaculture.]

- Actions to be taken in relation other influences: to include a summary of the approach that will be adopted to address other influences identified in Section 3.4, such as those that may be reducing the marine survival of stocks; this might also include collaborative action such as through the SALSEA research programme;
[Subsequent reporting could summarise specific actions taken to address other influences.]

5. Evaluation

To provide a summary of monitoring and evaluation activities that will be used to assess status of stocks and the efficacy of management measures.

Reporting procedures

Reports on actions taken to address Implementation Plans will be provided in two formats: written annual reports; and oral and written reports presented to Special Sessions.

Annual reports:

Reports will be provided on an annual basis by each Party or relevant jurisdiction. The primary purpose of these reports is to provide a summary of all the actions that have been taken under the Implementation Plan (Section 4) in the previous year. In addition, any significant changes to the status of stocks, factors affecting stocks and the management regime in place should be included in the report.

The annual report will therefore provide the following information:

1. a statement of any significant changes to the management outlined in the introduction to the Plan;
2. a description of significant changes to the status of stocks, and information on catches required under Article 15.1 and 15.2;
3. a description of new factors within the territory or area of fisheries jurisdiction which may significantly affect the abundance of salmon stocks (Article 15.5(c) of the Convention);
4. an account of actions taken under the four headings in Section 4 of the Implementation Plan including:
   - the adoption or repeal in the past year of laws, regulations and programmes relating to the NASCO objectives or any commitments to such measures as required under Article 15.5 (a and b), including management measures established or envisaged for homewater fisheries and their expected effects;
   - where appropriate, jurisdictions should also provide reports required under Article 14;
5. proposed revisions to the Implementation Plan.

**Special Session reports:**

Reports to Special Sessions will provide a more in-depth assessment of actions taken under one of the Focus Areas in Section 4 of the Implementation Plan, as selected by the Council. These reports will provide the basis for review of management actions taken within each jurisdiction over more than one year to meet the objectives of the Implementation Plan and will assess the efficacy of those actions in addressing the overall objectives of NASCO and in particular to conserve and restore salmon stocks.
Annex 4 of NSTF(06)13

NSTF(06)11

Suggested Changes to Conditions for Attendance by Observers at NASCO Meetings

Condition 4:
Interventions at NASCO meetings by accredited NGOs shall be in accordance with the following:

- Opening statements may be made by NGOs at the Opening Session of the Council. In addition, the accredited NGO chairperson and/or designee may each make a five-minute statement at the Opening Session of each Commission meeting;

- The President of the Council or Chairman of each Commission may recognise requests for the floor by the accredited NGO chairperson and/or designee on any agenda item under discussion before and after debate by the Parties on that item;

- During sessions that are defined as “Special Sessions” by the Council, any representative(s) of the accredited NGOs may make interventions.

Condition 10:
Observer status shall apply to all plenary sessions of the Council and the Commissions, whether at the Annual Meeting or at intersessional meetings. The Council or Commissions shall solicit NGO and other stakeholder input to meetings of working groups and other subsidiary bodies as appropriate.
NSTF(06)12

Review Process for Implementation Plans and Related Special Sessions

To implement the review process envisaged in Decisions 21 and 22 of Document CNL(05)49 and related documents, it is recommended that an *ad hoc* Review Group should be established as follows:

1. **Functions**
   a. Review and provide feedback to the President on the adequacy of Implementation Plans prepared by the Parties or relevant jurisdictions;
   b. Review and analyse reports to be presented at Special Sessions chaired by the President. Develop points to be raised during these Special Sessions and assist discussions. Prepare a short report of the Special Session for the President that contains appropriate suggestions.

2. **Composition**

   The Council would set up the *ad hoc* Review Group to run the review process. The Group would be chaired by the Secretariat and would include representatives from the following:
   
   - Denmark (in respect of either the Faroe Islands or Greenland (but not both);
   - The remaining Parties to NASCO – 2 persons (to the extent possible reflecting balance among the membership and appropriate expertise);
   - The Standing Scientific Committee;
   - Accredited NGO representatives – 2 persons (ideally one NGO from Europe and one from North America).

   Parties/entities represented on the Group would nominate persons (not usually the Heads of Delegations) to undertake the work necessary for the review. Representation on the *ad hoc* Review Group would rotate among Parties as appropriate. Such persons would operate in their expert capacity and not as representatives of their respective governments.

3. **Process and Timing**
   a. The members of the *ad hoc* Review Group would receive all the Parties’ reports for the Special Session at least one month before the start of the Council meeting.
   b. The *ad hoc* Review Group should communicate intersessionally with a view to reaching consensus on the points to be raised during the Special Session.
   c. To the extent possible, the *ad hoc* Review Group should communicate questions it intends to raise during the Special Session to the respective Parties
at least one week prior to the start of the Council meeting so that the Parties have the opportunity to formulate considered responses.

d. The Council will consider any suggestions resulting from the work of the *ad hoc* Review Group and the President and take action as appropriate.

e. The proposed schedule of activities follows below.

**Proposed Schedule of Activities**

**2006 Annual Meeting**

- A Special Session will be held during which the Parties present progress toward development of their draft Implementation Plans. This Special Session will provide Parties with the opportunity to compare experiences in development of their Implementation Plans and to receive feedback on their progress to date. Based on the experience of the Parties in developing their plans, and the feedback received during the Special Sessions, there may need to be changes to the draft guidelines for the preparation of the Implementation Plans.
- The Council will establish an *ad hoc* Review Group to conduct a review of the Implementation Plans intersessionally. This group should be established at the earliest opportunity during the Annual Meeting, and prior to the Special Session.

**October 2006**

- Revised Implementation Plans are submitted by the Parties to NASCO.

**November 2006 – March 2007**

- Review Group examines the Implementation Plans submitted by the Parties and prepares a report to submit to the President and the Parties in advance of the Annual Meeting.

**2007 Annual Meeting**

- Parties submit first Annual Report under their Implementation Plans;
- Parties review the report from the *ad hoc* Review Group on Implementation Plans;
- The Council will establish an *ad hoc* Review Group for Focus Area 1 (either fisheries management or habitat or aquaculture, introductions and transfers) in combination with a Special Session at the 2008 Annual Meeting.

**2008 Annual Meeting**

- Parties submit second Annual Report under their Implementation Plans;
- Parties submit report for Focus Area 1 Special Session at least 30 days prior to the Annual Meeting;
- Review process for Special Session on Focus Area 1;
- The Council will establish an *ad hoc* Review Group for Focus Area 2 in combination with a Special Session at the 2009 Annual Meeting.
2009 Annual Meeting

- Parties submit third Annual Report under their Implementation Plans;
- Parties submit report for Focus Area 2 Special Session at least 30 days prior to the Annual Meeting;
- Review process for Special Session on Focus Area 2;
- The Council will establish an *ad hoc* Review Group for Focus Area 3 in combination with a Special Session at the 2010 Annual Meeting.

2010 Annual Meeting

- Parties submit fourth Annual Report under their Implementation Plans;
- Parties submit report for Focus Area 3 Special Session at least 30 days prior to the Annual Meeting;
- Review process for Special Session on Focus Area 3;
- The Council will establish an *ad hoc* Review Group for the new 5-year Implementation Plans in combination with a Special Session at the 2011 Annual Meeting.

2011 Annual Meeting

- Parties submit fifth Annual Report under their Implementation Plans;
- Parties submit revised Implementation Plans at least 30 days prior to the Annual Meeting;
- Review process for Special Session on new Implementation Plans.
Terms of Reference for the 2006/2007 Ad Hoc Review Group

1. Functions

(a) The Ad Hoc Review Group shall review and provide feedback to the President on the adequacy of Implementation Plans submitted by the Parties or relevant jurisdictions.

(b) In carrying out this task the Ad Hoc Review Group should inter alia seek to assess the conformity of these plans with the “Guidelines for the Preparation of NASCO Implementation Plans and for Reporting on Progress” and how well the plans lend themselves to evaluation in relation to the objectives of NASCO’s Resolutions and Agreements.

(c) Following discussions in the Special Session on Implementation Plans, the Ad Hoc Review Group should prepare a short report in light of responses by the Parties, to be submitted to the President in the course of the 2007 Annual Meeting with appropriate suggestions.

(d) The Ad Hoc Review Group is not required to produce a unanimous report but to reflect all positions taken by members on the adequacy of the Implementation Plans presented and their alignment with the NASCO agreements and guidelines.

2. Composition

The Ad Hoc Review Group should be composed as follows:

- Denmark in respect of either the Faroe Islands or Greenland (but not both): 1 person;
- The remaining Parties to NASCO: 2 persons (to the extent possible reflecting balance among the membership and appropriate expertise);
- The Standing Scientific Committee: 1 person;
- Accredited NGOs: 2 persons (ideally one NGO from Europe and one from North America).

For 2006/2007, it was agreed that the persons representing NASCO would be Dr Jan Arge Jacobsen, Mr Ted Potter, Mr Raoul Bierach and Ms Mary Colligan. The NGO representatives will be Mr Chris Poupard and a North American NGO to be confirmed.

The Secretary should act as Ad Hoc Review Group Coordinator. The individuals appointed by Parties should act in the interests of NASCO and in a personal capacity, specifically not representing their Party.
3. **Schedule of Work**

*October 2006*
- Parties submit Implementation Plans to NASCO.

*November 2006 – March 2007*
- The *Ad Hoc* Review Group examines the Implementation Plans and prepares a report to the President.

*March/April 2007*
- The *Ad Hoc* Review Group’s report is made available to the Parties and accredited NGOs.

*June 2007*
- Annual Meeting of NASCO and Special Session on Implementation Plans.
Annex 17

CNL(06)36

Terms of Reference for a NASCO Public Relations Group

In accordance with the Strategic Approach for NASCO’s ‘Next Steps’ CNL(05)49 (Decisions 13-18), the Council has decided to create a Public Relations Group in order to develop and implement a clear public relations strategy aimed at enhancing NASCO’s profile and ensuring the most effective publicity for its work and achievements and to help NASCO gain the support it needs to further its conservation work. This public relations strategy should include:

- identification of the messages NASCO wants to deliver, including: success stories, new threats and opportunities;

- identification of target audiences;

- identification of products and methods for delivering the message, including brochures, reports, the NASCO website links to other websites, inventories and databases and use of stakeholder dialogue meetings;

- identification of educational programmes where NASCO could provide a link on its website.

The strategy should identify options for developing and implementing the above, including whether the products and methods can be identified by the Parties and/or NASCO or whether professional expertise will be required. The Group will be chaired by the Secretary and will meet prior to the Twenty-Fourth Annual Meeting in 2007 so that a report can be presented to the Council. In developing its recommendations, the Group should take into account the report of the pilot public relations project conducted by public relations consultants, Porter Novelli.
Council

CNL(06)17

Returns under Articles 14 and 15 of the Convention
CNL(06)17

Returns under Articles 14 and 15 of the Convention

Summary

1. Under the Convention, the Parties shall report on actions taken in accordance with Articles 14 and 15 of the Convention. Details of the new actions taken are attached. At the time of preparation of this paper, some EU Member States with Atlantic salmon stocks (France and Portugal) have not sent returns.

2. Under Article 14 of the Convention, Canada has reported on measures introduced in the Labrador food fisheries to minimise harvests of salmon. EU (Ireland) has reported that a Sea Fisheries Bill, which will strengthen sea fisheries law, is at the Committee stages with the Irish Senate. Norway has reported on its surveillance activities which (together with the surveillance activities of the Icelandic coastguard) are very valuable in identifying fishing for salmon by non-Contracting Parties in international waters in the North-East Atlantic Commission area.

3. Under Article 15, a number of new laws, regulations and programmes, other new commitments and factors affecting salmon stocks have been reported. In summary these include:

European Union:

In Denmark, a stocking programme using wild offspring has been implemented in accordance with the Danish Salmon Rehabilitation Programme.

In Germany (Baden Wuerttemberg), there has been increased stocking, increased numbers of river and stream reaches restored, and a salmon management plan developed with France and Switzerland is being implemented. There have also been measures to prevent injuries to fish at hydroelectric plants and monitoring of stocking programmes.

In Ireland, a Statutory Instrument was updated and amended with the effect that the carcass tagging and logbook scheme was continued in 2005. Orders prescribing the maximum number of licences for commercial fishing for salmon and prescribing the Terms of Reference for the National Salmon Commission were also introduced. The national aggregated TAC for the commercial salmon fishery in 2005 was set by regulation at 139,900 salmon to limit the catch by this sector. For 2006 the commercial quota has been set at 91,000 salmon, a reduction of 58% from the initial TAC of 219,000 set in 2002. For the first time an angling quota (15,000 fish) has been set for 2006. Catch and release fishing has increased in 2005. The Irish Government’s intention is to introduce measures to fully align with the scientific advice from the Standing Scientific Committee of the National Salmon Commission in 2007. If the scientific advice is followed and the Precautionary Approach implemented, then it will have serious implications for drift net fishing. An independent group has been appointed to examine the implications of the new regulations for the commercial sector in 2007 and beyond.
In Spain, regulations were adopted in 2005 which set fishing seasons and quotas in the autonomous regions. In Galicia, on some rivers the TACs were increased, while on others they were reduced. Some rivers remain closed to angling. In Asturias, the quotas were set at 1 salmon per fisherman per day in free areas and 3 salmon per fisherman per day in preserves. In Navarra, the total harvest of salmon for the region in 2005 was set at 75 fish. In Asturias, restocking programmes with native fish have led to increased returns, with stocked fish making up 15% of catches.

In Sweden, an outbreak of IPNv was observed on Atlantic salmon smolts at a fish farm.

In the United Kingdom, in England and Wales, there were season extensions for rod fishing on a number of rivers in Wales and South-West England, with catch and release mandatory during these extensions. The Cumbrian drift net fishery was closed by a byelaw in 2005. Netsmen have been compensated or have entered into voluntary agreements not to fish for all or part of the season in several areas. The phase-out of a number of mixed-stock fisheries is continuing. In Scotland, a number of Statutory Instruments were introduced which, for example, prohibited retention of rod-caught salmon in certain rivers at certain times of the year. The Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003 entered into force on 1 April 2005, and repealed and replaced Scottish salmon and freshwater fisheries primary legislation dating back to the nineteenth century. Catch and release fishing continues. There were extensive stakeholder consultations in 2005 as part of the process of developing new primary legislation to be introduced in 2006.

In Norway, 22 Atlantic salmon rivers were limed at a cost of NOK50 million (approximately £4 million) in 2005. In 2005, the total catch of salmon in limed rivers was 46 tonnes. It has been estimated that the salmon stocks in 14 of the limed rivers will be fully re-established after 15 years of liming (most programmes commenced in the period 1991 – 1997) and that the total catch of salmon from these rivers will be about 75 tonnes in 2011. In 2005 a project to eliminate the parasite *Gyrodactylus salaris* was undertaken in Laerdalselven using a combination of aluminium sulphate and rotenone. The final treatment was scheduled for April 2006. The River Leirelva was also treated, but unfortunately the parasite reappeared in 2 rivers treated in 2001/2002. Of the 45 rivers infected with *Gyrodactylus salaris*, 34 rivers have now been treated with chemicals and in 15 rivers the parasite has been eradicated and 11 rivers are still being monitored. Monitoring and preventative measures for the parasite are given a high priority. Norway has continued to cooperate with Russia on environmental issues.

In the Russian Federation, the Federal Act on Fisheries and Conservation of Aquatic Biological Resources was adopted in 2004 and was implemented in 2005. This law involves a new management approach introducing the concept of fishing sites which are rented out under 5-year contracts by the Federal Fisheries Agency. It is anticipated that this new approach will increase the commitment of users to the conservation of resources and protection of habitat and encourage them to invest more in their businesses and make their operations more transparent.
In the US, a final draft recovery plan for the populations of salmon listed as endangered has been completed and a Recovery Team has been convened to facilitate the plan’s implementation. This team has been asked to advise on those actions considered to be most critical to carry out over the next few years. The Water Chemistry Committee has continued to develop recommendations in relation to liming of salmon rivers. Telemetry data indicate that harassment activities were successful on the Narraguagus River, with fewer than 20% of tagged smolts being predated by double-crested cormorants when harassment was occurring. An independent review of Atlantic salmon hatcheries supporting the Gulf of Maine Distinct Population Segment and the Penobscot River has been initiated.

Secretary
Edinburgh
9 May, 2006
Returns under Article 14 of the Convention

1. Actions Taken To Make Effective The Provisions Of The Convention (Article 14, Paragraph 1)

1.1 The prohibition of fishing for salmon beyond 12* nautical miles from the baselines from which the breadth of the territorial sea is measured. (Article 2, paragraph 2)

* 40 nautical miles at West Greenland
* Area of fisheries jurisdiction of the Faroe Islands

European Union

Ireland

The Sea Fisheries Bill, 2005, which will strengthen sea fisheries law to secure compliance with EU Law and inter alia increase penalties, is currently at committee stages of the Seanad Eireann (Irish Senate).

Norway

Information on sightings is reported directly to NASCO by the Norwegian Coast Guard Squadron North.

Other Parties

No actions reported by the other Parties or EU Member States.

1.2 Inviting the attention of States not party to the Convention to any matter relating to the activities of the vessels of that State which appears to affect adversely the salmon stocks subject to the Convention. (Article 2, paragraph 3)

Other Parties

No actions reported by any Party.

1.3 Measures to minimise the by-catches of salmon originating in the rivers of the other member. (Article 7, paragraph 2) [North American Commission members only]

Canada

Ongoing improvements to Labrador food fisheries to ensure the catch of migrating salmon is minimized. Measures include seasons set to avoid salmon runs, and relocation of fishing activities further into rivers to avoid mixed stocks.

No actions reported by the US.
1.4 Alteration in fishing patterns in a manner which results in the initiation of fishing or increase in catches of salmon originating in the rivers of another Party, except with the consent of the latter. *(Article 7, paragraph 3)*  [North American Commission members only]

No actions reported by either Party.

2. **Actions Taken To Implement Regulatory Measures Under Article 13 (Article 14, Paragraph 1)**

No actions reported by any Party.

### Returns under Article 15 of the Convention

1. **Laws, Regulations And Programmes Adopted Or Repealed Since The Last Notification (Article 15, Paragraph 5(a))**

**European Union**

**Ireland**

Statutory Instrument (SI No. 256 of 2000) was updated for the 2005 fishing season for the continuation of the Carcass Tagging and Logbook Scheme in 2005. Under this instrument all salmon fishermen (commercial and recreational) must apply a coded carcass tag to each salmon caught and provide details of these landings and subsequent disposal (sale, storage, etc.) in official logbooks.

Control of Fishing for Salmon Order, 2005: This Order, which replaces the Control of Fishing for Salmon Order 1980 (as amended) and the Control of Fishing for Salmon by Drift Net (Kerry Fishery District) Order 1982 (as amended), authorises the issue of commercial salmon fishing licences by Regional Fisheries Boards and prescribes the criteria under which those licences may be issued. The Order also specifies the maximum numbers of commercial licences which may be issued by Regional Boards.

National Salmon Commission (Terms of Reference) Order, 2005: This regulation prescribes the terms of reference for the operation of the National Salmon Commission.

TAC in 2005: The commercial quota in 2005 was set at 139,900 salmon. This is a reduction of 48% from the initial commercial TAC of 219,000, which has been brought about by staged reductions of 17%, 11% and 14% annually since 2002.

**Spain**

Salmon fishing in Spain is regulated independently by each Autonomous Community. A general framework for fishing has been developed. It regulates fishing in fresh
water for the rational and sustainable harvest of Atlantic salmon and other species every year. Atlantic salmon can be found in the following Spanish Autonomous Communities: Galicia, Principality of Asturias, Navarra, Cantabria and Basque Country. Maps showing the Autonomous Communities, the salmon rivers and further information on management measures are provided in Annex 1.

The following information explains how these Spanish Autonomous Communities have regulated salmon fishing in 2005.

**Galicia:**

According to the law approved on February 11, 2005 in the Official Bulletin of Galicia number 34 (Friday, February 18, 2005) the Environment Department (Consellería del medio ambiente) regulates the fishing seasons and the standards related to the continental fresh water. The fishing law 7/1992, July 24, articles number 46 and 47 of the Fishing Regulation in rivers and the aquatic continental ecosystems, (Ordinance 130/197, 14th May) and the Order established on January 20, 2000 regulate the fishing in rivers and continental fresh waters of the Autonomous Community of Galicia. TAC regulations have been reviewed in several rivers: in 2004 the TAC was 25 salmon in Masma river, 6 in Mandeo river, 30 in Ulla river, 5 in Lérez river and 5 in Miño river (in the exclusively Spanish area). For 2005 the TAC was 40 salmon in Masma river, 5 in Mandeo river, 40 in Ulla river, 7 in Lérez river and 5 in Miño river (in the exclusively Spanish area), with the exception of the Eo River, which does not have an annual catch quota. When the permitted number of salmon has been caught, the fishing season is closed. Salmon fishing is not allowed in other rivers and the sea.

**Principality of Asturias:**

Fishing in Asturias is regulated by Law 6/2002 of June 18, to protect the aquatic ecosystems and regulate fishing in fresh water (Official Bulletin of the Principality of Asturias) number. 151; July 1, 2002). This law addresses the protection of the aquatic ecosystems and the regulation of fishing in fresh waters for sustainable development. According to the law approved in October 29, 2004 the Environment Department (Consejería del medio ambiente) regulates the fishing seasons and the standards related to fresh water in 2005. This resolution was published in the Official Bulletin of the Principality of Asturias number 260, on 9 November 2004.

This resolution establishes:
The salmon fishing season: from March 20 to July 31.
The quotas per person per day is:
- Free Areas: 1 salmon per fisherman per day.
- Preserve: 3 salmon per fisherman per day.

**Navarra:**

In the Autonomous Community of Navarra salmon fishing is regulated by Foral Order 190/2005, February 17 (published in Official Bulletin of Navarra, number 27 – date: 4th March 2005). There are no new changes with regard to fishing standards. This order establishes the open season from the third Sunday in March to the third Sunday
in July. A maximum of 75 salmon can be caught. Salmon less than 40cm must be released. Areas where salmon fishing is allowed are from San Tiburcio dam in Doneztebe/Santesteban to Navarra border.

_Cantabria:_

In the Autonomous Community of Cantabria salmon fishing is regulated by Foral Order 1/2005, January 11 (published in Official Bulletin of Cantabria, number 12 – date: January 19, 2005). There are no new changes with regard to fishing standards.

_Basque Country:_

Atlantic salmon fishing is not allowed in Guipuzkoa.

**United Kingdom**

_In England and Wales:_

Season extensions operated in 2005 for rod fisheries on a number of rivers in Wales and South West England. For some of these rivers (in North Wales) these arrangements were formalised in 2005 through new close season byelaws. In all cases, catch and release is mandatory during the extension period; other method restrictions also apply at this time on some rivers.

A byelaw came into force in July 2005 closing the Cumbrian drift net fishery. This fishery had previously been subject to a reducing Net Limitation Order which had been accelerated by compensation agreements.

_In Scotland:_

Scottish Statutory Instrument 2005 No. 24. The Conservation of Salmon (Esk Salmon Fishery District) Regulations 2005. Came into force on 16 February 2005. Restricts angling for salmon in the Esk District during the period 16 February to 31 May to the use of single or double barbless hooks, and prohibits retention of any salmon caught by rod and line during that period. Restricted the use of net and coble to one fishery in the North Esk and to one net and coble during the period 1 May to 31 May. Restricted the maximum number of traps that may fished outside estuary limits in the Esk District during the period 1 May to 31 May. Regulations remain in force until 15 February 2010.


Scottish Statutory Instrument 2005 No. 72. The Annual Close Time (Esk Salmon Fishery District) Order 2005. Alters the annual close time for fishing for salmon in the Esk Salmon Fishery District from 1 September to 15 February to the new close
time of 1 September to 30 April. Fishing is permitted by rod and line during the periods 1 September to 31 October and 16 February to 30 April.


Russian Federation

Under the Federal Law on “Fisheries and conservation of aquatic biological resources” of December 2004 a new management approach introducing a concept of “fishing sites”, and including the development of inventories of fishing sites and renting them out to users on the basis of a 5-year contract with the Federal Agency for Fisheries (state authority) is being implemented from 2005. As far as Atlantic salmon is concerned a fishing site is assigned for conducting:

- commercial fisheries;
- aquaculture;
- a subsistence fishery by First Nations of the North;
- recreational fisheries.

Atlantic salmon is a resource owned by the State. It is anticipated that a new management approach will increase commitment of users to the conservation of resources and protection of their habitat, enhance their responsibility before the State for sustainable exploitation of resources within the fishing site assigned, encourage them to invest more in their businesses and make their operations more transparent.

No changes reported by the other Parties or the other EU Member States.

2. Other New Commitments Relating To The Conservation, Restoration, Enhancement And Rational Management Of Salmon Stocks Subject To The Convention (Article 15, paragraph 5(b))

European Union

Ireland

The Government’s intention is to introduce measures to fully align with the scientific advice from the Standing Scientific Committee of the National Salmon Commission (NSC) in 2007. If the scientific advice is followed and the precautionary
approach fully implemented, then it will have serious implications for drift net fishing. An Independent Group has been appointed to examine the implications of the new regulations for the commercial sector in 2007 and beyond. The Group will make recommendations on the options available to address any financial hardship arising from full compliance with the scientific advice for 2007. They will also determine the extent to which those stakeholders deriving economic benefit from the decision should contribute to any scheme, whether in cash or in kind including improved tourist access. The Group will report to the Minister within five months, having drawn on the reports already generated through the National Salmon Commission by the National Fisheries Managers Executive (NFME) and the Standing Scientific Committee and undertaking appropriate consultation with relevant stakeholders.

Spain

Navarra: Two dams in tributaries have been equipped with fish passages, and the accessible length of Bidasoa River to salmon was increased by 5% in 2005.

Principality of Asturias: A dam in a tributary was pulled down last year, and another will be destroyed in the Sella Basin this year with an important increase in accessible length of a tributary.

Basque Country (Guipuzcoa): Adult salmon distribution has been studied with radiotracking during the last three years.

Sweden

An outbreak of IPN-V was observed on Atlantic salmon smolts in a fish farm. All fish in the farm were eradicated, and the farm was disinfected and declared free from the disease by the Board of Agriculture. In one fish farm *Gyrodactylus salaris* has been found on rainbow trout, which restricts that farm’s possibility of stocking fish in rivers considered to be uninfected.

United Kingdom

In England and Wales:

Netsmen have again received compensation payments (from various sources), or have entered voluntary agreements, not to fish for all or part of the season (or to release fish alive) in the following salmon fisheries: Tavy, Tamar, Lynher, Fowey, Camel, Lyn, Ribble and the Hampshire Avon and Stour. The phase-out of a number of mixed-stock fisheries is continuing.

In Scotland:

The practice of catch and release in the rod fishery continues, with 58% of early running MSW salmon (Jan-Apr), 51% of summer MSW salmon ((May-Dec), and 46% of grilse caught by rod and line released after capture. Members of the Salmon Net Fishing Association of Scotland renewed their voluntary deferment of the start of net fishing until 1 April. Engagement with stakeholders throughout 2005 via the Scottish Freshwater Fisheries Forum and its Steering Group to develop policy to
inform the development of new primary legislation for salmon and freshwater fisheries to be introduced to the Scottish Parliament in summer 2006.

Norway

Liming

In 2005, 22 Atlantic salmon rivers were limed in Norway at a cost of NOK 50 million (approximately £4 million). The increased funding in 2005 made it possible to start liming in the river Nidelva in Aust-Agder county in December 2005. The natural Atlantic salmon stock in this river is regarded as being extinct due to acidification. Before acidification, during the late 1800s, the yearly catch of salmon in the river Nidelva was up to 12 tonnes. A programme for restocking will start in 2006. Today the potential for salmon production is reduced by two dams built for production of hydroelectric power. Work to reduce the negative consequences of these dams has started.

For 2006, the Government of Norway has reduced the funding for the liming programme by NOK 26 million (approximately £2 million) compared with 2005. As a consequence the Directorate for Nature Management (DN) stopped liming in five salmon rivers from January 2006. As a result of a political process, the Ministry of Environmental Affairs advised the Directorate for Nature Management to continue liming in all 22 salmon rivers. The Ministry of Environmental Affairs has indicated that it will consider the need for more funding this summer.

In 2005 the total catch of Atlantic salmon was 46 tonnes in the 21 limed rivers. Most liming projects in Norway commenced during the period 1991 to 1997. It will take some years before salmon stocks in treated rivers are re-established. The Norwegian Institute for Nature Research (NINA) has estimated that the salmon stocks in 14 of these rivers will be fully re-established after about 15 years of liming, and has suggested that the total catch may be about 75 tonnes in 2011.

The largest liming projects are in three large watercourses in southern-most Norway: Tovdalselva, Mandalselva and Bjerkreimselva. In Tovdalselva and Mandalselva, the natural Atlantic salmon stocks became extinct due to acidification. Before acidification, during the late 1800s, yearly catches of salmon in the rivers Mandalselva and Tovdalselva were as high as 30 and 20 tonnes respectively. In both rivers, a restocking programme is being carried out in connection with the liming programme. The catches are increasing in the river Mandalselva with an average catch of about 10 tonnes in the last six years. In the River Tovdalselva the density of young fish was monitored in 2002 - 2005 and the catches are expected to increase in the next few years. From 2004 to 2005 the catches doubled in the River Tovdalselva, from 481 kg to 1097 kg. The River Bjerkreimselva had a small population of its natural salmon stock before liming commenced and catches increased significantly in the first few years after liming started. The average catch in the river Bjerkreimselva for the last six years has been about 14 tonnes.
Gyrodactylus salaris

In 2005, an eradication project in the River Lærdalselva began. The main river and its largest tributaries were treated with aluminium sulphate (AlS). Rotenone was used in small quantities in more or less stagnant water and other complex areas connected to the river. A final treatment will be carried out in April 2006.

A rotenone treatment project was completed in the River Leir elva in the northern part of Norway. Immediate treatment of this river was necessary to prevent the parasite entering a big lake situated in this watercourse.

Unfortunately, in 2005 the parasite was detected again in 2 rivers, which were treated with rotenone in 2001/2002. River Steinkjerelva and River Figga are situated in the innermost Trondheimsfjord, in the middle part of Norway. This fjord system is the most important area for Atlantic salmon in Norway. The eradication of the parasite from the River Steinkjerelva and the River Figga is being given the highest priority.

Out of 45 infected rivers, chemical treatment has so far been carried out in a total of 34 rivers in Norway. In 15 of the treated rivers the parasite has been eradicated. Eleven rivers are still being monitored. Five years of monitoring after treatment is necessary to confirm that the treatment has been successful. In eight rivers the parasite has been registered again after chemical treatment.

In addition to the remedial measures, the monitoring programme and preventive measures are being given high priority.

International cooperation

Cooperation between Norway and Russia on environmental issues, and on research and management of Atlantic salmon, has continued, especially concerning Atlantic salmon in the Pechora River and in relation to Gyrodactylus salaris.

Conservation of salmon stocks

There has not been any activity concerning cryopreservation of salmon milt in 2005. By the end of 2005, milt from a total of 6,511 wild salmon from 169 stocks had been included in the Frozen Gene Bank (cryopreservation). Norway currently operates 3 living gene banks (LGB); one in northern Norway, one in middle Norway and one in south-western Norway. The threats to the stocks that are kept in these stations are hydropower development, acidification, high proportion of escaped farmed salmon and the freshwater parasite Gyrodactylus salaris. Nine of the 29 salmon stocks that have been maintained in LGBs have been re-introduced into their river of origin; seven are no longer retained in captivity but two are being kept as a precaution against future catastrophes. Twelve additional stocks are under restoration, while the seven remaining stocks await eradication of G. salaris from their native rivers. One stock of landlocked salmon is maintained in the LGB as a precautionary measure. The three LGBs are now preserving 22 stocks, 4 in Bjerka, 10 in Haukvik and 8 in Eidfjord.
USA

As reported last year, following the listing of Atlantic salmon under the Endangered Species Act (ESA), NOAA’s National Marine Fisheries Service (NMFS) and the US Fish and Wildlife Service (USFWS) (collectively referred to as the Services) have been consulting with other federal agencies to review all projects carried out in the salmon watersheds in order to avoid or minimize impacts to Atlantic salmon and their habitat. Consultations have been conducted on the permitting process for discharge from aquaculture facilities, siting and operation of aquaculture facilities, dredging projects, and bridge and road repair.

The Services have worked with the Maine Atlantic Salmon Commission (ASC) to develop a final Recovery Plan for the populations of Atlantic salmon that have been listed as endangered. The draft was reviewed by technical staff at both state and federal agencies during 2003. During 2004 the draft was subject to public and peer review. The Recovery Plan was then revised to address public comments received during the public review process. A final draft was completed in November 2005. A copy of the Final Recovery Plan is available at the following link: http://www.nmfs.noaa.gov/pr/recovery. The Services have convened a Recovery Team representing a diversity of expertise in order to facilitate implementation of the Recovery Plan. The Recovery Team is being asked to develop recommendations to the Services as to what actions identified in the Plan are the most critical to carry out over the next several years. The Recovery Team will be asked to review and revise their recommendations annually based upon recovery activities that have been completed or are ongoing and any new information on the species or threats.

In 2003 the Services assembled an Atlantic Salmon Biological Review Team (BRT) to review and evaluate all relevant scientific information necessary to evaluate whether the population in the Penobscot River and other rivers should be included in the Gulf of Maine (GOM) distinct population segment (DPS). The populations in the Penobscot and several other rivers were not included in the GOM DPS at the time it was listed under the ESA in November 2000 because there was not enough scientific information at that time to demonstrate that those populations were part of the same DPS or constituted a different DPS. Since the listing in 2000, new information has come to light which indicates that the GOM DPS should be re-evaluated to determine if any other populations should be included because they are closely related. The Draft Status Review was completed in January 2006 and is currently undergoing peer review. Depending on the findings in the Status Review, the Services may be required to take some action under the ESA.

NMFS, in conjunction with other federal and state agencies, Universities, and non-governmental organizations, continues to work cooperatively on the Water Chemistry Committee to investigate the potential to implement a pilot liming project on a portion of the Dennys River, Maine. Based on data from the 2004 and 2005 streamside study, the Water Chemistry Committee has determined that it does not seem that low pH events in the Dennys River is the major cause of reduced survival of stocked smolts and it would be premature to conduct a liming project on the Dennys River for the purpose of mitigating low pH and high aluminum impacts on smolts. The Water Chemistry Committee has concluded that a liming project on the Dennys River or any river in Eastern Maine may, in fact, enhance Atlantic salmon productivity regardless
of low pH and high aluminum because rivers with high limestone influence are often far more productive than rivers that have very little limestone influence. The committee believes that an in situ liming experiment would be the most effective tool for assessing the ecological benefits or impacts of liming in Eastern Maine rivers. A liming project on a small tributary would allow for more intense monitoring of the response of juvenile Atlantic salmon and the surrounding ecosystem to liming and would reduce costs associated with monitoring and labour. This project should be designed to mitigate acidic conditions where they appear to be present, including the Pleasant River and some tributaries. The study proposed above is very different from the whole-river treatment initially planned. Based on existing data, the salmon population viability analysis (PVA), and our current understanding of how acidification effects salmon survival, acidification does not appear to be having a significant population effect on the DPS rivers. The Committee recommends that until new information becomes available, it would be premature to assume that river liming on a large scale would contribute significantly to the recovery of the DPS.

NMFS, the ASC, and USDA Wildlife Services developed a study to determine the effectiveness of non-lethal methods to remove or displace foraging double-crested cormorant populations from the Narraguagus estuary. The objectives of the cormorant harassment study are twofold: 1) to reduce predation on migrating Atlantic salmon smolts by excluding double-crested cormorants from the lower Narraguagus River and Narraguagus Bay; 2) to assess the efficacy of non-lethal predator exclusion as a means of reducing predation on migrating Atlantic salmon smolts. In order to measure success in meeting the first objective, smolt survival during times of active harassment and non-harassment was monitored. Smolt survival was monitored with ultra-sonic telemetry gear. In addition, cormorant abundance before, during, and after the smolt run was also monitored with automated digital cameras that are programmed to take pictures (i.e. point counts) at fixed intervals every day. The telemetry data generated during the study showed that harassment activities were successful, with fewer than 20 % of tagged smolts being removed from the system when harassment was occurring.

The ASC, USFWS, and NMFS have agreed to jointly pursue an independent review of Atlantic salmon hatcheries supporting the Gulf of Maine DPS and Penobscot River. The hatchery review process was initiated with the goal of providing direction and operational guidelines to develop hatchery reform programs which are scientifically founded and evaluated. NMFS, USFWS, and ASC are in the process of drafting a Request for Proposals and seeking funding to support the review. Compilation of reference materials to be provided to the reviewers in order to expedite the review process is underway.

Other Parties

No new commitments reported by the other Parties or the other EU Member States.
3. **Other Factors Which May Significantly Affect The Abundance Of Salmon Stocks Subject To The Convention (Article 15, Paragraph 5(c))**

**European Union**

**Denmark**

Stocking in accordance with the Danish Salmon Rehabilitation programme is now fully implemented with wild F1 offspring. In two rivers there is a ban on salmon fishing for a period of years.

**Germany**

*In Baden-Wuerttemberg:*

a) Increasing numbers of stocked fry, pre-smolts or smolts.
b) Increasing number of restored rivers and stream reaches.
c) A management plan developed together with France and Switzerland for salmon stocks has come into force.
d) Measures at hydroelectric power stations to prevent fish injuries.
e) Monitoring of stocked fry and pre-smolts.

**Ireland**

The commercial quota in 2006 has been set at 91,000 fish and for the first time an angling quota of 15,000 fish has been set. This is a reduction of 58% from the initial commercial TAC of 219,000, which has been brought about by staged reduction of annually since 2002.

Catch and release angling has been increasing steadily. 12% of the potential angling catch is now being returned. This is an increase over that reported in 2004 (9%).

Conservation of Salmon and Sea Trout Bye Law Number 802, 2006: A provision for the restriction on the annual angling bag limit of 10 fish per angler for 2006; the NSC had recommended a limit of 15 fish per angler. (The lower level is believed to be necessary to contain the total harvest by anglers to 15,000 fish, given that there is there no appreciable reduction in the average angling catch (25,000) over the past five years and in the interest of a balanced treatment of all stakeholders), and

Conservation of Salmon and Sea Trout Bye Law Number 803, 2006: The introduction of compulsory catch and release provisions from 1st September until the end of the season in 8 districts which are not meeting conservation limits. The fishery managers have argued that there is an absolute need to conserve stocks in those districts. Given that commercial fishing ceases in the majority of districts on 31 July, there is no reason why anglers should be allowed to continue to kill fish up to the end of September.
In addition, three technical amendments have been incorporated into the 2006 regulations on the advice of the managers. The amendments provide for: the latest date by which logbooks (angling and commercial fishing) should be returned to the Fisheries Boards; specification in the regulations of fines/penalties in respect of a contravention or failure to comply with the regulations; and the return of tags with angling logbooks including data in relation to fish caught and released.

The Minister has also approved the necessary byelaw amendments to enable draft net fishing with monofilament nets, within the quotas set down for the Cork district in the draft Wild Salmon and Sea Trout Tagging Scheme Regulations in the 2006 season. The approval is on foot of the results of a pilot study to investigate aspects of draft net fishing in Cork Harbour, conducted over the past three years by the Cork and District Draft Net Fishermen’s Association under the direction of the South Western Regional Fisheries Board.

Spain

Principality of Asturias: Restocking programmes with native fish have produced an increase in the rate of return estimated at 15% of the total number of salmon caught. Smolt and parr production in hatchery and release was over 1,000,000 in 2005. No others measures.

Other Parties

No factors reported by the other Parties or the other EU Member States.
Annex 1 of CNL(06)17

Maps showing the Autonomous Communities in Spain, the salmon rivers and further information on management measures

Autonomous Communities: Galicia, Principality of Asturias, Navarra, Cantabria and Basque Country

Galicia
Principality of Asturias

Capable season of Salmon fishing: From the 20 of March to the 31 of July. Its capture is only authorized in the main course of Eo, Poria, Nava, Esva, Narcea, Nalón, Sella, Piloña, Cares and Deva rivers. Therefore, fishing remains prohibited in Puentón and Sedón rivers. Also, salmon season remains in Esva river, downstream from Canero bridge, as well as in Nalón rivers upstream from the mouth of Laracha stream, in the surroundings of Parufior bridge.

Navarra

Salmon fishing was opened from third Sunday of March until the third Sunday of July. This period could be closed if salmon number 75 is captured.
Returns under Article 14 of the Convention

2. Actions Taken To Implement Regulatory Measures Under Article 13 (Article 14, Paragraph 1)

In accordance with the current legislation (i.e. Environment code), and in addition to administrative sanctions such as withdrawal of permits, the following legal sanctions are applicable:

- A fine amounting to Euro 450 (about £312): for failing to release a salmon which has not reached the minimum size required or for not having specific tags at one’s disposal whilst fishing for salmon;
- A fine amounting to Euro 1500 (about £1,039) and to Euro 3,000 (or £2,078) in the event of a second offence: for the fishing of salmon during forbidden periods, for omitting to tag a captured salmon and for failing to send a declaration of capture.

It is to be noted that these measures have not changed in any specific way since 2005.

Returns under Article 15 of the Convention

1. Laws, Regulations And Programmes Adopted Or Repealed Since The Last Notification (Article 15, Paragraph 5(a))

No specific notification was made on behalf of Metropolitan France on these measures over the last few years. There are no elements of comparison, which is why the following developments describe only in general terms the current measures in place.

With regard to management of the wild salmon stocks, the main enforceable points are as follows:

The current legislation (i.e. the Environment code) stipulates that plans should be defined for the management of migratory fish, including the Atlantic salmon (*Salmo salar*), by basin (river or group of rivers up to the transversal limit of the sea). With regard to these plans, the following has been drawn up:

- Measures enhancing reproduction, development, conservation and movement of these fish;
- Methods to assess the stocks and to evaluate their numbers;
- Stocking programmes and programmes which aim to maintain numbers;
- Conditions determining how the periods of fishing season are set;
- Terms by which fishing could possibly be restricted;
- Conditions for the delivery and maintenance of the fishing log.
In this context, and as from 1996, management initiatives for the rivers of the North-West of France (Bretagne, Normandy) have been formulated. In practice, this means that targets for reproduction levels have been defined for each river and that measures have been put in place to ensure the implementation of these levels (such as TAC, technical measures...).

Measures have also been adopted which aim to control the fishing effort on these stocks in the maritime sections of these basins (i.e. Ministerial decree of 16/10/1996). These measures, specifically request:

- The delivery of permits for estuary fishing, according to a contingent fixed nationally and taking into account criteria aiming to progressively diminish the fishing effort taking place in each basin (in 2006: 1,137 permits have been granted);
- A compulsory statistical declaration of the catches made;
- Specific tagging of wild salmon catches.

These specific measures are derived from professional debates and can be opposed each year.

2. Other New Commitments Relating To The Conservation, Restoration, Enhancement And Rational Management Of Salmon Stocks Subject To The Convention (Article 15, paragraph 5(b))

Wild salmon fishing is currently undertaken in two basins: in the Massif Armorican (Bretagne and Lower-Normandy) and in the Adour-Gaves basin. It should be noted that exploitation of the stock used to take place in the Loire-Allier basin until 1994. However, given the reduction in the level of this stock, this fishery is now closed.

In Bretagne and Lower-Normandy, a regulation based on the setting of a TAC level has been in place since 1996. In 2005, the actual catches were significantly below these TAC levels (37%). In addition, as from 2000, a specific TAC, amounting to 10% of the total TAC, was set for spring salmon. This measure expects the fishing season to close temporarily as from mid-June if this level of TAC is reached. In 2005, the specific TAC was reached on 6 of the 28 rivers, and therefore fishing was stopped temporarily.

In 2005, some technical measures implemented for leisure/sport fishing in the Adour-Gaves basin, were based, as in the previous year, on closing the fishery for two days a week (Tuesday and Thursday) and on fixing a daily quota per fisherman (4 salmon per fisherman). Furthermore, commercial fishing with nets has varied very little in this basin since 2002 and occurs outside the closed days for fishing (2 days closed from April to mid June, 3 days closed from April to July, 2 days closed throughout July and entirely closed as from the end of July). Whilst the regulation has changed little in 2005 on this topic, a reduction of the fishing effort has been noted in the commercial fishing.
Catch Statistics

Annual return of official catch statistics (Article 15, paragraph 1). Please provide the following information:

1. Provisional catch of Atlantic salmon for the calendar year 2005 in tonnes round fresh weight or round fresh weight equivalent

The 2005 estimate for provisional catches amounts to 10.9 tonnes (which corresponds to 3,027 fish). These figures include the total declared catches and an estimate in respect of undeclared catches, based on investigations in the field.

2. If available, provisional catch of Atlantic salmon for the calendar year 2004 in numbers and weight (round fresh weight or round fresh weight equivalent) according to sea-age

The 2005 estimate for provisional catches (declared catches and estimate of undeclared catches) can be broken down as follows:

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW</td>
<td>1256</td>
<td>2756</td>
</tr>
<tr>
<td>MSW</td>
<td>1771</td>
<td>8111</td>
</tr>
</tbody>
</table>

3. Confirmed catch of Atlantic salmon in tonnes round fresh weight or round fresh weight equivalent for previous calendar year (i.e. 2004)

The 2004 confirmed estimate of catches amounted to 19.3 tonnes.
Unreported Catches

Management control and reporting systems

A description of management and control and reporting systems by country

Declarations of catches made from angling or from other types of gear are compulsory in fresh water and estuarine waters. Fishermen make these declarations on envelopes which request specific information (river, length, weight, date of the catch...). A scale sample is also requested to determine the age of the salmon.

With regard to fishing activities in fresh water, officials are authorized to note offences, obtain information on undeclared catches through investigation along the rivers. This information is then compared with the actual declarations made. It is fitting to note at this juncture that statistics also include undeclared catches.

There are no estimates made of undeclared catches for professional net fishing in the Adour estuary. Furthermore, it is also possible that by-catches from other fishing methods (other than angling) take place in other estuaries (such as the Loire), although there is no precise data on these.
Council

CNL(06)18

Amendments to the ‘Williamsburg Resolution’
1. The Resolution by the Parties to the Convention for the Conservation of Salmon in the
North Atlantic Ocean to Minimise Impacts from Aquaculture, Introductions and
Transfers and Transgenics on the Wild Salmon Stocks, ‘the Williamsburg Resolution’
(CNL(03)57), was adopted by the Council in 2003. In adopting the Williamsburg
Resolution the Council had recognised that it was a ‘living document’ that would
evolve in future in the light of experience with its implementation, consultations,
Improved scientific understanding of the impacts of aquaculture, introductions and
transfers and transgenics, and developments in measures to minimise them. In 2004,
the Council adopted a new definition of ‘transgenic’ and amended the Guidelines for
Action on Transgenic Salmon. The Council had also adopted Guidelines for Stocking
Atlantic Salmon. The amended Resolution is contained in CNL(04)54.

2. Last year the Council agreed that the Memorandum of Understanding between the US
and Canada, which is intended to reconcile differences between the methods used by
these countries to authorise introductions and transfers, should be appended to the
Williamsburg Resolution. Furthermore, prior to the Twenty-Second Annual Meeting,
the International Salmon Farmers’ Association (ISFA) provided comments on the
Williamsburg Resolution in accordance with an agreement made at the Liaison Group
meeting in 2005. No comments were received from the salmon farming industry in
Scotland or Russia (which are not members of ISFA). The Council asked that the
Secretary develop a response to these comments in consultation with the Parties and
transmit it to the President of ISFA. Our response is contained in Annex 1 of
CNL(06)19. These responses were sent to the President of ISFA on 8 November and
were discussed at the meeting between ISFA and the NASCO Secretariat on 9 May
(see document CNL(06)19). ISFA is able to accept NASCO’s proposals for
addressing their comments, with a few minor exceptions (see document CNL(06)19).
Annex 1 contains those sections of the Williamsburg Resolution where changes are
proposed (shown in bold italics) in the light of the comments from ISFA, the
responses proposed by NASCO, and the discussions at the meeting on 9 May.

3. The Council is asked to consider these proposed changes and decide if it can accept
them or take other action as appropriate. It is hoped that the differences between
NASCO and the salmon farming industry on the Williamsburg Resolution are now
resolved and it will be possible to make further progress through the Liaison Group on
issues of mutual interest.

4. Once the Council has agreed the changes to the Williamsburg Resolution we will
issue it as a brochure.

Secretary
Edinburgh
19 May, 2006
ANNEX 1

PREAMBLE

RECOGNISING that in order to protect wild salmon stocks from adverse impacts that can or might be caused by aquaculture, introductions and transfers, and transgenics, there is a need to take into account local conditions in determining appropriate management measures;

ARTICLE 3

Burden of Proof

Each Party, in accordance with the Precautionary Approach, should require the proponent of an activity covered by this Resolution to provide all information necessary to demonstrate that the proposed activity will not have an significant adverse impact on wild salmon stocks or lead to irreversible change.

ARTICLE 5

Measures to Minimise Impacts of Aquaculture and Introductions and Transfers

Each Party shall take measures, in accordance with Annexes 2, 3 and 4 to this Resolution, to:

• Minimise escapes of farmed salmon to a level that is as close as practicable to zero through the development and implementation of action plans as envisaged under the Guidelines on Containment of Farm Salmon (CNL(01)53);
• Minimise impacts of ranched salmon by utilizing local stocks and developing and applying appropriate release and harvest strategies;
• Minimise the adverse genetic and other biological interactions from salmon enhancement activities, including introductions and transfers;
• Minimise the risk of transmission to wild salmon stocks of diseases and parasites from disease and parasite transmission between all aquaculture activities, and from introductions and transfers, and wild salmon stocks.

 Movements into a Commission area of reproductively viable Atlantic salmon or their gametes that have originated from outside that Commission area should not be permitted.

ARTICLE 9

Mitigation and Corrective Measures

Where significant adverse impacts on wild salmon stocks are identified, the Parties should initiate corrective measures without delay and these should be designed to achieve their purpose promptly.

Mitigation measures can include activities to safeguard against potential future impacts (e.g. contingency planning, gene banks).
ARTICLE 10

Implementation

In order to have confidence that the wild stocks are protected from irreversible genetic change, from significant ecological impacts and from significant impacts of diseases and parasites, full implementation of the measures in this Resolution and its Annexes is essential. Local conditions may warrant consideration of stronger measures. All measures should be regarded as adaptable to improved salmon aquaculture technologies and methodologies (e.g. use of sterile fish, lice vaccines, etc.).

Where detailed agreements are developed by a regional Commission of NASCO in support of this Resolution, they will be appended. Appendix 1 indicates the current situation within the North American Commission. Appendix 2 contains a Memorandum of Understanding between Canada and the USA intended to reconcile the differences between the methods used to authorise introductions and transfers in the two countries. Any further guidelines to assist in implementing this Resolution will be annexed.

Each Party shall report annually to the Organization on the measures adopted and actions taken under Articles 5, 6, 7 and 9.
## Annex 1

**Definitions relating to Salmon Aquaculture, Introductions and Transfers and Transgenics**

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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| **Containment**     | **Physical containment**: Prevention of escapes of farmed salmon into the freshwater and marine environments.  
|                     | **Containment of diseases and parasites**: Implementation of measures to prevent the *transfer* (spread) of diseases and parasites *from between* aquaculture facilities and *wild fish*. |
| **Epidemiological zones** | Zones defined by lack or presence of specific pathogens.                                                                                       |
| **Introduction**    | The intentional or accidental release of a species into an environment outside its native or natural range.                                                                                             |
| **Mitigation stocking** | Stocking conducted as a voluntary action or statutory requirement to mitigate lost production due to an activity that cannot be removed.                                              |
| **Non-indigenous**  | Not originating or occurring naturally in a particular environment; introduced outside its native or natural range.                                                                                      |
| **Population**      | A group of organisms of a species occupying a specific geographical area.                                                                                                                                     |
| **Rehabilitation**  | The rebuilding of a diminished population of a finfish species, using a remnant-reproducing nucleus, toward the level that its environment is now capable of supporting. |
| **Restoration**     | The re-establishment of a finfish species in waters occupied in historical times.                                                                                                                           |
| **Risk assessment** | The process of identifying and describing the risks of activities having an impact on fisheries resources, habitat or aquaculture before such activities take place; the process of identifying a hazard and estimating the risk presented by the hazard, in either qualitative or quantitative terms. |
| **River classification** | Designation of a river or watershed according to the degree of human impact.                                                                             |
| **Salmon aquaculture*** | The culture or husbandry of Atlantic salmon and includes salmon farming, salmon ranching and salmon enhancement activities.                                                                                   |
| **Salmon enhancement** | The augmentation of wild stocks in individual river systems by the release of Atlantic salmon at different stages in their life-cycles.                                                               |
| **Salmon farming**  | Production system which involves the rearing of Atlantic salmon in captivity for the duration of their life-cycle until harvested.                                                                            |
| **Salmon ranching*** | The release of reared Atlantic salmon smolts with the intention of harvesting all that return.                                                                                                                  |
| **Salmonid***       | All species and hybrids of the family salmonidae.                                                                                                                                                    |
Annex 2

General Measures To Minimise Impacts

This Annex is designed to provide guidance to NASCO’s Parties on minimising impacts of salmon aquaculture and introductions and transfers on wild salmon stocks. The guidelines will be regularly reviewed and updated as appropriate in the light of new scientific information and changing technologies and methodologies.

1. Siting and Operation of Aquaculture Activities

1.1 Salmon aquaculture facilities should only be located where hydrographical, epidemiological, biological and ecological standards can be met. Factors which may be taken into consideration include: availability of water supply and receiving waters for discharge; water quality and exchange; water depth; site protection; separation distances between aquaculture facilities; and distance from salmon rivers. Further guidance on containment is provided in Annex 3.

1.2 Consideration should be given to the establishment of “wild salmon protection areas” where salmon aquaculture is restricted or prohibited. Such protection areas may minimise genetic, disease, parasite and environmental impacts.

1.3 The designation of “aquaculture regions”, where all the steps in the production process are carried out and which are separated from similar regions by areas without aquaculture, should could also be considered. Such regions could provide a framework for management of the aquaculture industry and could assist in controlling the spread of fish diseases and parasites.

1.4 The separation distance between aquaculture facilities at marine sites should be based on a general assessment of local conditions. Wherever possible, different generations of salmon should be reared in separate locations. As local conditions permit, a fallowing regime should be practised as a means of minimising outbreaks of disease and parasites. Aquaculture production should be adapted to the holding capacity of an individual site and should not exceed density levels based on science and good husbandry practices.

1.5 Dead and dying fish should be removed immediately from aquaculture production facilities, taking into account worker safety, and weather and sea state conditions. Mortalities should be and disposed of, along with waste materials, in an approved manner. Procedures should be established to address the effective removal and disposal of infectious material. Contingency plans should be established for the disposal of mortalities from emergency situations.

1.6 Tagging Depending on local regulations and protocols, tagging or marking or inventory tracking systems could will be used in order to facilitate the identification of farmed salmon in the wild and their separation from wild fish, to determine the source of escapes and to assess the interactions of escaped farmed salmon with the wild stocks. These systems could be coupled with river monitoring and recapture systems that allow holding and close examination of returning fish in the rivers.
2. Diseases and Parasites

2.6 Even with such procedures, it may not be possible to respond in time to prevent the spread of such a disease or parasitic infection. It is recommended that the Contracting Parties, when establishing or reviewing rules on transfers of fish, consider additional protective measures such as:

- **the establishment of zones**: the intention of such zones, between which the movement of live salmonid fish and their gametes should be restricted and which might be defined using geographical, climatic or biological criteria, is to limit the spread of parasites and diseases to wild stocks;

- **the movement of salmonids**: for disease prevention purposes, the trade in eggs is safer than the trade in live fish. It must, however, be recognised that some serious diseases, such as IPN, BKD and IHN, may be transferred with eggs and ovarian fluid;

- **diseases of wild fish**: there is a need to strengthen and amend disease controls to **ensure adequate protection of wild fish, minimise disease transfer between aquaculture activities and wild fish.**
Annex 5

CNL(04)41

NASCO Guidelines for Action on Transgenic Salmonids

THE PARTIES to NASCO are aware of the development of transgenic salmonids. While there may be benefits from the introduction of such salmonids if, for example, they could not interbreed with wild stocks the Council recognises that there are also risks which may lead to irreversible genetic changes and ecological interactions.

The Council considers that there is an urgent need to take steps to ensure the protection of the wild stocks and has therefore agreed to cooperate to develop means such that transgenic salmonids cannot impact upon wild salmon stocks. The following specific steps are agreed.

The Parties will:

a) advise the NASCO Council of any proposal to permit the rearing of transgenic salmonids and provide details of the proposed method of containment and other measures to safeguard the wild salmon stocks;

b) take all possible actions to ensure that the use of transgenic salmonids, in any part of the NASCO Convention Area, is confined to secure, self-contained, land-based facilities;

c) inform their salmon producers of the potentially serious risks to wild stocks of this development and consult with the salmon farming industry on this matter through the Liaison Group established between NASCO and the international salmon farming industry; *

d) take steps, as appropriate, to improve knowledge on the potential impacts of transgenic salmonids on the wild salmon stocks and their habitat;

e) examine the trade implications associated with transgenic salmonids in accordance with World Trade Organization Agreements and other instruments of international law.

Furthermore, those Parties to NASCO that are also Parties to the Cartagena Protocol on Biosafety to the Convention on Biological Diversity should take into account the provisions of that Protocol.

*Note: At its Seventeenth General Meeting in Galway, Ireland, in September 1996, the International Salmon Farmers’ Association (ISFA) adopted its Policy on Transgenic Salmon, which states that “In accordance with sound environmental practices, the ISFA firmly rejects transgenic salmon production”.

206
Annex 7

Research and Development and Data Collection

Research and data collection should be carried out, as appropriate, in support of this Resolution. Recognising that research requirements are continually developing, a list of current research areas is identified in this Annex. Where appropriate, successful research results should be taken forward to pilot testing.

Areas for research and pilot testing include:

**Sterile fish**

Methodology and techniques for sterilization are now well developed; research should now focus on developing strains of sterile fish which could perform at a level similar to current strains of fish used in farm production. Trials should be encouraged to evaluate the performance of strains of sterile fish under production conditions.

**Tagging and marking**

Tagging and marking is being used on a small scale in order to facilitate the identification of farmed salmon in the wild and their separation from wild fish, to determine the source of escapes and to assess the interactions of escaped farmed salmon with the wild stocks. Full evaluation of those trials should be conducted in order to assess effectiveness, the feasibility of large-scale marking, and associated costs. **Consideration should also be given to food safety, product quality and animal welfare.**

**Alternative Evaluation of production methods**

There should be an ongoing evaluation of current and new production methods and technology including land-based production facilities, closed or contained floating facilities, water recirculation and other containment technologies to evaluate their potential to reduce the risk of disease and parasite transmission and escapes. (e.g. improved containment techniques, development of suitable strains of sterile fish, development of sea lice vaccines, etc.).

**Aquaculture broodstock**

Research is recommended on broodstock selection methodology to minimise impacts on wild salmon stocks.

**Genetics**

Great advances have been made in genetic research in the past decade. These methods should be applied in investigating, in greater detail, interactions between wild salmon and salmon of aquaculture origin, including the extent of hybridization, composition of stocks, and identification of disease strains and appropriate treatment.
Diseases and parasites

The transmission of diseases and parasites from between salmon reared in aquaculture to and the wild stocks is an area of considerable concern. Research on vectors for transmission, and methods to prevent and control disease and parasite outbreaks in wild salmon and in aquaculture, should be encouraged.

Interactions

Information should be collected and analyzed on the extent of intermingling in rivers and at sea between wild salmon and salmon of aquaculture origin.

Risk assessment frameworks

There has been considerable activity in the development of risk assessment frameworks. There remains a need to identify the appropriate factors to be included in a risk assessment in order to evaluate the potential impacts of aquaculture, introductions and transfers, and transgenics on wild salmon stocks.

Biological impacts

Further work is recommended on biological interactions between wild salmon and salmon of aquaculture origin including competition and behavioural interactions that may affect the viability and success of the wild populations.

Escape prevention

*Research into escape detection technologies and improved containment systems should be encouraged.*
Council

CNL(06)19

Report of a Meeting between the International Salmon Farmers’ Association (ISFA) and representatives of the NASCO Secretariat
Report of a Meeting between the International Salmon Farmers’ Association (ISFA) and representatives of the NASCO Secretariat

1. In accordance with the decision of Heads of Delegations, a meeting between representatives of the International Salmon Farmers’ Association and the NASCO Secretariat was held in Brussels on 9 May. The report of the meeting is attached. The group made progress on a number of issues, as follows.

**Follow-up to the Trondheim and Bergen meetings**

2. The group recommends that at the next Liaison Group meeting the topics raised at the Trondheim Workshop, i.e. area management initiatives, use of sterile salmon in farming, and restoration programmes, be further discussed. In particular it was felt that it would be useful if each country provided information on area management initiatives to see if guiding principles might be developed. ISFA agreed to consult each country. NASCO representatives agreed to develop a discussion document on how the salmon farming industry might be able to contribute to restoration programmes. It was further agreed that each country should bring forward to the next Liaison Group meeting ideas and thoughts on the way forward on measures to minimise genetic impacts and details of any research on sterile salmon. It was also agreed that the Liaison Group might focus on approaches to the treatment and control of sea lice. The group also felt that a further joint workshop might be held in 2009 and that possible topics should be identified from the SALCOOP project recommendations.

**The Williamsburg Resolution**

3. After considerable debate and some concerns from industry about the process by which the Williamsburg Resolution was developed, the industry can now accept the document subject to some relatively minor changes which are detailed in document CNL(06)18.

**Reporting on escapes**

4. There was a large increase in reported escapes in 2005; more than 1.5 million fish were reported to have escaped in Scotland and Norway alone, and these figures are minimum estimates. The group felt it might be useful to discuss approaches to ensuring cage security at the next Liaison Group meeting since there were four confirmed acts of vandalism in Canada in 2005 that resulted in approximately 150,000 farmed fish being released to the wild.

**NGO participation**

5. The industry is now willing to admit an NGO representative to the Liaison Group meetings, provided that this is a representative from WWF(US), given that organization’s role in the salmon aquaculture dialogue meetings. NASCO representatives proposed that the Chairman of NASCO’s accredited NGOs would be the appropriate person, accompanied by the representative of WWF.
Date and venue of the next Liaison Group meeting

6. It is proposed that this be held immediately prior to the Boston Seafood Show (which takes place during 11-13 March 2007) and that one and a half days be allocated.

7. The meeting allowed for a useful exchange in planning the next steps for the Liaison Group. There was a good atmosphere of cooperation and the industry representatives have indicated a willingness to assist NASCO in seeking funding for the SALSEA programme. The Council is asked to consider the report of the meeting and agree to the recommendations made, or take other action as appropriate.

Secretary
Edinburgh
19 May, 2006
Introduction

1. Dr Malcolm Windsor (Secretary of NASCO) opened the meeting. He conveyed greetings from the Liaison Group Chairman, Ms Mary Colligan (USA), and indicated that while NASCO would have liked to have held a full Liaison Group meeting, there had, in effect, been two meetings in the last twelve months (the Liaison Group meeting in May 2005 and the Trondheim Workshop in August 2005). He indicated that representatives of the salmon farming industries in Scotland and Russia (which are not ISFA members) had been invited to participate in the meeting, but were unable to be represented. He thanked FHL Aquaculture (Norway) for generously providing the meeting facilities.

2. Mr James Ryan (President of ISFA) indicated that the industry regretted that it had not been possible to hold a full Liaison Group meeting in North America but he shared the view expressed by Dr Windsor that there had been two very useful meetings in 2005. He advised the Group that at the ISFA meeting on 8 May, Mr Knut Hjelt (FHL Aquaculture, Norway) had been appointed as Secretary of ISFA.

3. ISFA was represented at the meeting by Mr James Ryan (President of ISFA), Ms Nell Halse (Canada) and Mr Richie Flynn (Ireland). NASCO was represented by Drs Malcolm Windsor and Peter Hutchinson of the Secretariat.

4. The Group agreed its agenda (Annex 1) and asked that Malcolm Windsor chair the meeting and Peter Hutchinson serve as Rapporteur.

Follow-up actions emerging from the Trondheim and Bergen meetings

1. Brief reports were presented on the Trondheim Workshop, ‘Wild and Farmed Salmon – Working Together’, held in August 2005, and the ICES/NASCO Bergen Symposium, ‘Interactions between aquaculture and wild stocks of Atlantic salmon and other diadromous fish species: Science and Management, Challenges and Solutions’, held in October 2005. Both events had attracted around 100 participants and the feedback had been extremely positive. The report of the Trondheim Workshop should be available at the end of May and it was agreed that a print run of 600 copies should be adequate. It will include all twelve of the invited presentations, the Session Chairmen’s summaries and the final summing-up. Those papers presented to the Bergen symposium, which pass peer review, will be included in a special issue of the ICES Journal of Marine Science being edited by Peter Hutchinson. There will also be a Report of the Symposium by the Co-Conveners, Malcolm Windsor and Lars Hansen, focusing more on the management aspects.
Dr Windsor indicated that while he had been encouraged by the progress being made in relation to sea lice management on farms, he remained concerned about the continuing escape of farm fish at levels that are high relative to wild fish abundance. He recognized that the industry has made considerable progress in reducing escapes, but the new information presented in Bergen indicated that the consequences of repeated intrusions of farmed fish into spawning populations of wild salmon may be irreversible. He also welcomed the statements from the industry representatives in Bergen that they seek to cooperate with wild fish interests in minimizing adverse impacts.

2.2 There were three themes at the Trondheim Workshop: area management initiatives, the use of sterile salmon in farming, and restoration programmes. The group believes that there would be benefits from further discussion of these three topics at the next Liaison Group meeting. With regard to area management initiatives, it was felt that it might be useful for each country to provide information on area management initiatives with a view to exploring if guiding principles could be developed by the Liaison Group. The ISFA representatives agreed to consult each Party on this issue and to develop a discussion document for consideration by the Liaison Group. It was recognised that NASCO had developed a Plan of Action for habitat protection and restoration, and guidelines on stock rebuilding programmes and on stocking Atlantic salmon. While all three documents are of relevance to restoration programmes, the group agreed that there might also be benefits from the Liaison Group developing some guiding principles as to how the salmon farming industry might be able to contribute to restoration programmes. The NASCO Secretariat agreed to develop a discussion document on this topic.

2.3 The group also discussed the issue of using sterile fish in farming. It is clear from the information presented in Trondheim that while sterile fish would effectively eliminate genetic interactions with wild fish, the industry has concerns about their poorer performance in the sea, the frequency of deformities and adverse consumer reaction to sterile fish. Furthermore, the industry representatives suggested that as farmed salmon become increasingly domesticated, their ability to survive in the wild may decline further. It was noted that a recent EU regulation defines sterile salmon as an alien species, which would have implications for their use by salmon farmers in EU Member States. The group decided that it would be useful if each country could come to the next Liaison Group meeting with ideas and thoughts on the way forward with regard to measures to minimise genetic impacts of farmed fish and details of any ongoing research on sterile salmon.

2.4 The group considered whether there might be a further Liaison Group workshop to examine some of the other recommendations in the SALCOOP report. The arrangement of holding a joint workshop in conjunction with the biennial AquaNor exhibition had been beneficial to industry representatives but the group felt that a further workshop in August 2007 might be premature, so 2009 might be considered by the Liaison Group. At the Bergen symposium and Trondheim Workshop it became clear that while there are continuing concerns about genetic impacts, progress is being made with regard to effective pest management strategies to control sea lice in salmon farms. However, there are very limited medications available for sea lice treatment. For example, ISFA indicated that in Ireland only two treatments are licensed for use against sea lice, while in Norway farmers have access to eight treatments. There are concerns about the possible development of drug resistance in
sea lice and the group felt that the topic of sea lice control might also usefully be discussed at the next Liaison Group meeting.

3. **The Williamsburg Resolution**

3.1 The Resolution to Minimize Impacts from Aquaculture, Introductions and Transfers and Transgenics on the wild salmon stocks, “The Williamsburg Resolution”, was adopted by NASCO at its 2003 Annual Meeting. In adopting this Resolution the Council had recognized that it would evolve in future in the light of experience with its implementation, consultations, improved scientific understanding of the impacts of aquaculture, introductions, transfers and transgenics and developments in measures to minimize them. The Resolution was amended by the Council of NASCO in 2004 by the inclusion of a new definition of ‘transgenic’, revision of the Guidelines for Action on Transgenic Salmonids and inclusion of Guidelines for Stocking Atlantic Salmon.

3.2 Prior to adoption of the Williamsburg Resolution by the Council of NASCO, it had been made available to the industry through the Liaison Group but concerns were subsequently expressed by the industry about the way in which the development of the Williamsburg Resolution had been handled, since, in their view, due process had not been followed. At the 2005 Liaison Group meeting, the NASCO Secretariat had been asked to develop an Explanatory Memorandum detailing the background to the development and adoption by NASCO of the Williamsburg Resolution and the manner in which it is to be implemented by NASCO’s Parties and their relevant jurisdictions. Following development of this Explanatory Memorandum the industry representatives had agreed to provide specific comments to NASCO on the various articles of the Resolution with proposals for change where they felt these were necessary, a rationale for such changes and references to relevant scientific papers and codes of practice. The comments from ISFA were tabled at NASCO’s Twenty-Second Annual Meeting in June 2005 (document CNL(05)30). No comments had been received from the salmon farming industries in Scotland and Russia. The Council had asked that the Secretary develop a response to these comments in consultation with the Parties and transmit it to the President of ISFA. This response, which was sent to ISFA on 8 November, is contained in Annex 2.

3.3 The representatives of ISFA confirmed that they could now accept all of NASCO’s proposals for addressing their comments, given the assurance that risk assessment and consideration of socio-economic aspects in establishing measures are central themes of the Resolution. Furthermore, the Council’s decision to include the MoU between the US and Canada on introductions of transfers and the Council’s new arrangements for reporting on implementation plans had addressed ISFA’s concerns about annexing relevant legislation/agreements to the Resolution. However, there were four changes in the proposal from NASCO that ISFA would wish to see changed, as follows:

Items 3, 7, 10(a) and 12(c): the industry would prefer to use the word ‘between’ in relation to disease transmission because while it is recognized that in most circumstances it is impossible to treat wild fish, wild fish are a reservoir of infection for some diseases and in some situations, e.g. hatchery releases, it is possible to take measures to ensure that diseases are not transmitted to the wild with potential consequences for both wild and farmed fish.
Item 4: the industry would like to include the statement concerning ISFA’s rejection of transgenic salmon production as a footnote to Article 7 of the Resolution.

Item 9(d): change wording to “science and good husbandry practices” since it is assumed neither Party would wish to encourage use of bad science.

Item 9(f): In the first sentence delete “or audited containment management systems” and replace “could be” with “should be”. Last sentence delete “should” and replace with “could”.

3.4 The group felt that it would be advantageous to now resolve the differences with regard to the Williamsburg Resolution so that the Liaison Group could move forward and explore additional areas of mutual interest where there could be cooperation between NASCO and the industry with a view to protecting wild salmon stocks while allowing the industry to continue its development. The NASCO Secretary thanked the industry side and indicated that he would submit these changes for adoption by NASCO Council next month.

4. Progress with containment/prevention of escapes (including reports for 2005)

4.1 The NASCO Assistant Secretary briefly summarized the reports provided by the Parties on escapes of farmed salmon in 2005. In summary these were as follows:

Canada:

There were four incidents reported during 2005, all confirmed acts of sabotage. In incidents in April and May, 13,300 fish of 2-3 kg weight and 13,000 fish averaging 1.5kg in weight were released. In August 2005, approximately 20,000 fish of about 0.5kg were released and in November 2005 about 100,000 market-sized fish valued at 3 million Canadian dollars were released.

European Union:

Ireland: There were no reported escape events in 2005.

Scotland: In 2005, approximately 830,000 farmed fish were reported to have escaped compared to approximately 93,000 fish in 2004. Details of the causes of the escapes were provided. In addition, it was reported that the Aquaculture and Fisheries Bill, which is scheduled to be presented to the Scottish Parliament during the summer of 2006, contains a number of proposals aimed at addressing the issue of containment and the containment guidance developed under the Strategic Framework for Scottish Aquaculture has been further developed in the industry’s Code of Good Practice. On 25 April 2006, some 700 tagged farmed salmon were released from a fish farm in Wester Ross as part of a NASCO co-ordinated experiment into the migration and fate of farmed salmon.

Sweden: No new information was presented but there is limited salmon farming in Sweden.
Iceland:

There was negligible reporting of escapes from sea-cages on the east coast of Iceland in 2005, although one tagged escaped farmed salmon was reported from an east-coast river. None were reported from other rivers. Microtagging of 10% of farmed fish is required in Iceland and since 2001, 600,000 farmed fish have been tagged. The threat from escapes is considered small on the basis of recoveries of tagged farmed fish. In Iceland salmon farming is being replaced by cod-farming.

USA:

No reported escapees in 2005. Four suspect fish were identified in the Union River that may have come from a nearby aquaculture facility but more information is being gathered. In the Downeast Maine rivers quite a few salmon are suspected to have originated from the releases that occurred in Canada in the summer and fall of 2005. Some fish were recovered in the fall through the use of a weir and directed angling but there were still quite a few fish remaining in the rivers and higher than normal redds.

4.2 No report was available for Norway but information presented at the Bergen symposium indicated that approximately 600,000 farmed salmon had escaped in two escape events in 2005. ISFA representatives indicated that they had been advised that approximately 750,000 famed salmon had been reported to have escaped in 2005 in Norway.

4.3 The group noted that while these numbers are large relative to wild fish returns, and give rise to real concerns about interactions with wild fish, they represent a very small proportion of the farmed fish held in eggs. For example, in Norway, it is thought that there may be around 300 million farmed fish in the sea in any given year so the escapees represents around 0.25% of the stock of farmed fish. It was noted that information presented at the Bergen symposium suggests that the stock of salmon in cages in Norway is a better indicator of the occurrence of farmed fish in rivers than reported escape numbers, suggesting that there may be under-reporting of large-scale escape events, and/or significant small-scale, but unreported, trickle losses. All figures should, therefore, be considered minimum estimates.

4.4 The Group discussed why countries like Scotland and Norway had reported large numbers of escapes but Ireland had no reported escape events. James Ryan indicated that in Ireland the cages and nets are designed for exposed sites and there are frequent inspections of facilities by divers. While the basic design of cages may be similar in exposed Irish sites, they are constructed of rubber rather than plastic. He also indicated that smolt supply was very limited and the farmers were, therefore, very keen to ensure as high a proportion as possible of the smolts stocked reach harvestable size. In Ireland, approximately half of the smolts stocked are imported, but import is not permitted in Canada, where local stocks must be used and this involves a cost to the industry.

4.5 The Group discussed the acts of vandalism in Canada that had resulted in the release of approximately 150,000 farmed salmon. Attempts had been made to recapture the fish using herring seines and while these efforts had been initiated quickly, with good cooperation from the Department of Fisheries and Oceans, they had been largely
unsuccessful. A reward of 250,000 Canadian dollars had been offered for information about the largest incident but the perpetrators had not been arrested to date. In the case of the smaller incidents it was thought that the vandalism may have been related to employee issues. The salmon farming company involved is now investing in new security systems but these involve considerable cost. Only one such act of vandalism had occurred in Ireland. The group recognised that there could be benefits, both environmental and to the farmer, from a system capable of monitoring the biomass of farmed salmon in cages and triggering an alarm if this fell. The group believed that it would be valuable to have an exchange of information at the next Liaison Group meeting on approaches to ensuring security of fish farms from acts of vandalism.

5. NGO participation

5.1 At the last Liaison Group meeting, NASCO representatives had again indicated support for allowing the Chairman of NASCO’s accredited NGOs and/or his/her nominee to attend future meetings of the group. The industry representatives had, however, indicated that they felt that there was a need to keep the group small to ensure its effective functioning and they referred to problems of communication with the media involving two NGOs at NASCO’s 2001 meeting. However, the industry had agreed that the Trondheim workshop should be an open meeting, and there had been no problems of NGO involvement in this event. Indeed, the Chairman of NASCO’s NGOs had chaired a session.

5.2 The ISFA representatives indicated that they had again discussed the question of admitting NGO representatives to the Liaison Group and had decided that it would be timely to admit an NGO representative to future Liaison Group meetings. In view of the role played by WWF(US) in establishing and coordinating salmon aquaculture dialogue meetings, the ISFA representatives proposed that the NASCO NGOs be represented in the Liaison Group by that organization, possibly Dr Jason Clay. NASCO representatives indicated that the change of attitude with regard to NGO representation was extremely welcome and helpful, but suggested that it might be appropriate for the Chairman of NASCO’s accredited NGOs to be the representative, as well as a representative of WWF(US), so that there could be both European and North American representation. The industry indicated that they might have some concerns about this arrangement since the Chairman of the NGOs may change in future but the NASCO representatives indicated that it would be possible to develop conditions governing NGO attendance at the Liaison Group to address industry concerns, and indicated that they would raise this matter with NASCO Council.

6. Date, venue and agenda for the next Liaison Group meeting

6.1 The group recommends that the next Liaison Group meeting be held in conjunction with the Boston Seafood Show which is being held at the Boston Conference and Exhibition Centre from Sunday 11 - Tuesday 13 March 2007. Ideally the Liaison Group would meet immediately prior to this show. The group further recommends that in view of the suggested agenda items identified, the Liaison Group should allow one and a half days for this meeting and that the Secretary of NASCO and the President of ISFA should liaise on the arrangements for the meeting and on developing the agenda.
7. Any other mutually agreed business

7.1 NASCO provided a brief update on the status of the wild stocks and agreed to make the report from ICES available to the ISFA representatives. A brief outline of the SALSEA programme was presented and the ISFA President agreed to consult possible supporters to the programme within the salmon farming industry. It was agreed that the Secretary of NASCO should write to the President of ISFA to provide a brief description of the SALSEA programme and to ask for his assistance in identifying potential supporters of the programme in the salmon farming industry.

7.2 There was no other business. The Chairman thanked participants for their contributions.
Informal Meeting of ISFA and the NASCO Secretariat
Hilton Brussels City
Tuesday 9 May, 2006

Agenda

1. Follow-up action arising from the Trondheim and Bergen meetings
2. Amendments to the Williamsburg Resolution
3. Progress on containment (including reports on escapes in 2005)
4. NGO participation in the Liaison Group
5. Date, venue and agenda for the next Liaison Group meeting
6. Any other mutually agreed business
Responses to the
Comments from the International Salmon Farmers’ Association (ISFA)
on the Williamsburg Resolution
1. **Preamble to the Williamsburg Resolution**

(a) **ISFA’s Proposed Change:** In the Preamble, immediately under the wording “The Parties”, ISFA wish to make reference to an Explanatory Memorandum developed by the Liaison Group and to annex this Explanatory Memorandum to the Resolution.

*Proposed NASCO Response:* The Explanatory Memorandum referred to was developed to assist the industry in providing its comments to NASCO on the Williamsburg Resolution. While it describes the background to the development and adoption by NASCO of the Williamsburg Resolution and the manner in which it is to be implemented by NASCO and its Parties, it also focuses on the Liaison Group’s activities. It should remain as a stand-alone Liaison Group document which can be made available on request to interested parties. NASCO, therefore, suggests that this proposed change is not appropriate to the document.

(b) **ISFA’s Proposed Change:** After the fifth paragraph of the Preamble, which begins “RECOGNISING the benefits”, ISFA wishes to insert a new paragraph as follows:

NOTING the progress made by the Liaison Group of the North Atlantic Salmon Conservation Organization (NASCO) and the International Salmon Farmers Association (ISFA) in establishing mutually beneficial working arrangements in order to make recommendations on wild salmon conservation and sustainable salmon farming practices that maximize potential benefits and minimize potential risks to both. (Attach as Appendix 2 Annex SLG(01)11 “Guiding Principles for Cooperation between NASCO and its Contracting Parties and the North Atlantic Salmon Farming Industry”);

*Proposed NASCO Response:* The Resolution addresses all forms of aquaculture, as well as introductions and transfers and transgenics, so it is not appropriate to include a statement concerning only salmon farming in the Preamble. Indeed, it gives undue focus to salmon farming, a concern for the industry. Similar text to that proposed is, however, reflected in the Preamble to the Guidelines on Containment of Farm Salmon developed by the Liaison Group and included as Annex 3 of the Resolution. NASCO therefore suggests that these proposed changes are not appropriate to the document.

(c) **ISFA’s Proposed Change:** In the current seventh paragraph of the Preamble, ISFA wishes to change the word “can” to “might”. The paragraph would then read (change shown in bold):

RECOGNISING that in order to protect wild salmon stocks from adverse impacts that might be caused by aquaculture, introductions and transfers, and transgenics, there is a need to take into account local conditions in determining appropriate management measures;

*Proposed NASCO Response:* The existing wording is “that can be caused”. The compromise solution proposed is to change it to “that can or might be caused...”
2. **Article 3 – Burden of Proof**

**ISFA’s Proposed Change:** ISFA wishes to see changes to the wording of this Article as shown below (changes and additions shown in bold):

Each Party, in accordance with the Precautionary Approach, should require the proponent of an activity covered by this Resolution to provide all information necessary to demonstrate that the proposed activity will not have a *significant* adverse impact on wild salmon stocks or lead to irreversible change. **If the required information is not available and cannot be obtained at reasonable cost,** the decision-making process should rely on a full Risk Assessment as outlined in Article 4.

**Proposed NASCO Response:** “Significant” is an ambiguous term; however, we can include it as it will not change the meaning of the Article. NASCO does not think that the suggested change to the last sentence is appropriate, because risk assessment applies to all measures to be taken in accordance with the Resolution.

3. **Article 5 – Measures to Minimise Impacts of Aquaculture and Introductions and Transfers**

**ISFA’s Proposed Change:** ISFA wishes to change the wording of the fourth bulleted sub-paragraph of the first paragraph of this Article to read as follows:

- Minimise the risk of disease and parasite transmission *between* wild salmon stocks and all aquaculture activities, introductions and transfers.

**Proposed NASCO Response:** Wild salmon cannot be treated, so it is not feasible to minimise risk of disease and parasite transmission from wild salmon to farmed fish other than in relation to stocking activities and this aspect is covered in Annex 2 (General Measures to Minimise Impacts) and in the Guidelines for Stocking Atlantic Salmon (Annex 4 of the Williamsburg Resolution). The aim is to conserve wild stocks and prevent aquaculture activities from affecting them. NASCO does not, therefore, think that the suggested change is appropriate.

4. **Article 7 – Transgenic Salmonids**

**ISFA’s Proposed Change:** ISFA wishes to see an additional paragraph added to this Article, as follows:

The International Salmon Farmers Association affirms this position in its Policy on Transgenic Salmon, which was adopted at its Seventeenth General Meeting in Galway, Ireland on September 1996: “In accordance with sound environmental practice, the ISFA firmly rejects transgenic salmon production.”

**Proposed NASCO Response:** It is not felt appropriate for one organization to state its position on one aspect of the Williamsburg Resolution. Other stakeholders may have different views. NASCO does appreciate ISFA’s support on this issue.
5. **Article 9 – Mitigation and Corrective Measures**

**ISFA’s Proposed Change:** ISFA wishes to insert the word “significant” into this Article so that it reads as follows:

Where significant adverse impacts on wild salmon stocks are identified, the Parties should initiate corrective measures without delay and these should be designed to achieve their purpose promptly.

**Proposed NASCO Response:** Although “significant” is an ambiguous term, it does not change the meaning of the Article. NASCO can, therefore, accept this change.

6. **Article 10 – Implementation**

**ISFA’s Proposed Changes:**

(a) ISFA wishes to see the text of the first paragraph of Article 10 amended to read as follows (additions and changes in bold):

In order to have confidence that the wild stocks are protected from irreversible genetic change, from significant ecological impacts and from significant impacts of diseases and parasites, full implementation of the measures in this Resolution and its Annexes is recommended. *(Comment from ISFA - If WR is non-binding on the parties and is not intended to be prescriptive “recommended” is more appropriate than “essential”)*

Local conditions may warrant consideration of stronger or more moderate measures. All measures should be regarded as adaptable to improved salmon aquaculture technologies and methodologies. (e.g. use of sterile fish, lice vaccine, etc.)

**Proposed NASCO Response:** “Significant” is an ambiguous term, but does not change the meaning or intent of the Article, and is acceptable. The word “essential” does not imply that the Resolution is a binding agreement. NASCO could understand the sensitivity if the word “required” had been used, and if there was a timeframe for implementation. The wording proposed, “recommended”, and “or more moderate” seems rather weak. The feeling in developing the Resolution was that it provided a minimum standard and that stronger measures may be required. The last sentence is appropriate and reflects the fact that the Resolution is a ‘living document’.

(b) ISFA wishes to see the text of the second paragraph of Article 10 amended to read as follows (additions shown in bold):

Where detailed agreements are developed by a regional Commission of NASCO in support of this Resolution, they will be appended. Appendix 1 indicates the current situation within the North American Commission as outlined in the NAC Protocols (94). **Appendix 11 indicates the Canadian Code for Introductions and Transfers which will be followed in Canada.** Any further guidelines to assist in implementing this Resolution will be annexed.
Proposed NASCO Response: The Council agreed in Vichy to include the Memorandum of Understanding between the US and Canada intended to reconcile differences between the methods used in these countries to authorise introductions and transfers. The MoU between the US and Canada is linked to Canada’s Code for Introductions and Transfers and accomplishes what is being suggested. NASCO believes that the Resolution will become excessively long if all the relevant agreements developed by the Parties in relation to minimising impacts of aquaculture, introductions and transfers are annexed.

7. Annex 1 – Definitions relating to salmon aquaculture, introductions and transfers and transgenics

ISFA’s Proposed Change: ISFA wishes to see the definition of ‘Containment of diseases and parasites’ changed to read as follows:

Containment of diseases and parasites: Implementation of measures to prevent the transfer (spread) of diseases and parasites between aquaculture facilities and wild fish.

Proposed NASCO Response: See previous comment in 3 above. NASCO does not see this change as appropriate to the Resolution.

8. Annex 2 – General Measures to Minimise Impacts

ISFA’s Proposed Change: ISFA wishes to see the following introductory paragraph inserted at the start of this Annex:

This annex is designed to provide guidance to NASCO’s Parties on minimizing impacts of salmon aquaculture on wild salmon stocks. The guidelines will be regularly reviewed and updated as appropriate in light of new scientific information and changing technologies and methodologies.

Proposed NASCO Response: The annex is not just concerned with aquaculture. If the words “and introductions and transfers” are inserted after “salmon aquaculture” in the first sentence the proposed change is more inclusive and is acceptable to NASCO.

9. Annex 2 – General Measures to Minimise Impacts – Section 1, Siting and Operation of Aquaculture Activities

ISFA’s Proposed Changes:

(a) ISFA wishes to see the following text added in paragraph 1.1 of this Annex:

Existing protocols employed by the NASCO parties should be referenced here or in separate Annex e.g. Canadian Environmental Assessment Act, Environmental Management Guidelines (New Brunswick), Ireland: Environmental Impact Statement Requirements for Fish Farms and The 5 Fish Farm Monitoring Protocols on Benthic Impacts, Water Column Impacts, Sea Lice, Site Fallowing and Operations Audits (More examples could be added from other countries)
Proposed NASCO Response: See response under 6(b) above.

(b) ISFA wishes to see the text of paragraph 1.2 amended to read as follows (changes and additions in bold):

1.2 Consideration should be given to the establishment of “wild salmon protection areas” where salmon aquaculture is restricted or prohibited. Such protection areas may minimise genetic, disease, and parasite (and environmental – delete, not an issue) impacts. In the event wild salmon protection areas are to be used to prohibit salmon aquaculture activities a risk assessment should be conducted to determine the degree to which the protection area will effectively help protect wild salmon stocks. In areas with existing salmon aquaculture facilities that are proposed for wild salmon protection areas and in which restrictions or prohibitions on those existing facilities are proposed consideration should be given to the socio-economic impacts of imposing those restrictions or prohibitions.

Proposed NASCO Response: NASCO recognises the need for risk assessment and for consideration of socio-economic aspects. Both are either covered in the Resolution or in NASCO’s socio-economic guidelines.

(c) ISFA wishes to see paragraph 1.3 concerning designation of “aquaculture regions” deleted because they have indicated that aquaculture-free regions already exist in all jurisdictions because of unsuitable topography. Furthermore, they note that most jurisdictions already have strong policies on single generation sites and adequate separation between sites and the next clause covers this question adequately).

Proposed NASCO Response: Retaining this paragraph in the Resolution reflects what is being done in various jurisdictions. Perhaps replacing “should” with “could” would be more appropriate.

(d) ISFA wishes to see the following change to paragraph 1.4:

1.4 The separation distance between aquaculture facilities at marine sites should be based on a general assessment of local conditions. Wherever possible, different generations of salmon should be reared in separate locations. As local conditions permit, a fallowing regime should be practised as a means of minimising outbreaks of disease and parasites. Aquaculture production should be adapted to the holding capacity of an individual site and should not exceed density levels based on good science and good husbandry practices.

Proposed NASCO Response: Reference Article 11. Inclusion of the words “good science” is a good suggestion but we assume husbandry practices are science-based.

(e) ISFA wishes to see the following changes to paragraph 1.5:

1.5 Dead and dying fish should be removed immediately as quickly as possible from aquaculture production facilities taking into account worker safety and weather and sea state conditions. Mortalities should be and disposed of, along with waste materials, in an approved manner. Procedures should
be established to address the effective removal and disposal of infectious material. Contingency plans should be established for the disposal of mortalities from emergency situations.

**Proposed NASCO Response:** Recognising this as a health and safety issue, NASCO can accept the proposed change except that “immediately” would replace “as quickly as possible”.

(f) ISFA wishes to see the text of paragraph 1.6 amended as follows:

1.6 **Depending on local regulations and protocols**, tagging, marking, **inventory tracking systems or audited containment management systems** could be used in order to facilitate the identification of farmed salmon in the wild and their separation from wild fish to determine the source of escapes and to assess the interactions of escaped farmed salmon with the wild stocks. **These systems should be coupled with river monitoring and recapture systems that allow holding and close examination of returning fish in the rivers.**

**Proposed NASCO Response:** The existing wording only indicates that tagging or marking “could be used”. NASCO would appreciate further clarification from the industry on how inventory tracking systems and containment management systems could facilitate identification of farmed salmon in the wild when coupled with the use of monitoring and recapture systems.

10. **Annex 2 – Diseases and Parasites**

ISFA’s Proposed Changes:

(a) ISFA wishes to see the text of paragraph 2.6 amended to read as follows:

2.6 **diseases of wild fish:** there is a need to strengthen and amend disease controls to minimise disease transfer between salmon aquaculture activities and wild fish (ensure adequate protection of wild fish).

**Proposed NASCO Response:** See earlier comments on Article 5.

(b) ISFA wishes to see reference included in paragraph 2.8 to fish health management systems that are currently being implemented, as follows:

2.8 Medicines and disinfectants to control diseases and parasites must be used with care and in accordance with the manufacturer’s instructions and any Codes of Practice, and in compliance with regulatory authorities.

- National Aquatic Animal Health Program (NAAHP) Canada
- New Brunswick Fish Health Surveillance Program (FHSP)
- (Other countries to follow)
11. **Annex 4 – Guidelines for Stocking Atlantic Salmon**

**ISFA’s Proposed Change:** In Section IIIB of the Guidelines under paragraph 3, ISFA has made the following comment:

Given the fact that stocking programmes are intentionally releasing aquaculture fish into the wild, there should be close correlation between the recommendations on disease management in fish stocking operations and those in fish farms – see Section 2, Annex 2.

**Proposed NASCO Response:** The recommendations in Annex 2, Section 2, apply to all forms of aquaculture, including hatcheries for stocking. The disease aspects of stocking are also covered in Annex 4 - the Guidelines for Stocking Atlantic Salmon.

12. **Annex 7 – Research and Development and Data Collection**

**ISFA’s Proposed Changes:**

(a) ISFA wishes to see the paragraph of this Annex concerning Tagging and Marking changed to read as follows:

Tagging and marking is being used on a small scale in order to facilitate the identification of farmed salmon in the wild and their separation from wild fish, to determine the source of escapes and to assess the interactions of escaped farmed salmon with the wild stocks. Full evaluation of those trials should be conducted in order to assess effectiveness, the feasibility of large-scale marking, and associated costs. **Consideration should also be given to food safety, product quality and animal welfare.**

**Proposed NASCO Response:** This proposed change is covered by the existing wording concerning effectiveness, feasibility and costs, but is not a problem. NASCO can accept this change.

(b) ISFA wishes to see the paragraph on ‘Alternative production methods’ deleted, as they indicate that it is no longer relevant in light of the numerous failed commercial and experimental projects which have been carried out in many different countries over the last 25 years. ISFA believes that the focus should be on the improvement of containment technologies and the development of suitable strains of sterile fish).

**Proposed NASCO Response:** This is important in that it recommends ongoing evaluation of existing and new production methods. Perhaps the heading and examples are the problem here but the intent is consistent with the change the industry sought in Article 10, Implementation. NASCO suggests changing the heading to “Evaluation of production methods”, removing the examples given and including reference to improvement of containment techniques and development of suitable strains of sterile salmon, as suggested by ISFA.
(c) ISFA wishes to see the paragraph on ‘Diseases and parasites’ changed to read as follows:

The transmission of diseases and parasites between salmon reared in aquaculture and the wild stocks is an area of considerable concern. Research on vectors for transmission, and methods to prevent and control disease and parasite outbreaks in wild salmon and in aquaculture should be encouraged.

**Proposed NASCO Response:** See response under paragraph 3 above.

(d) ISFA wishes to add a new paragraph to this Annex on Escape Prevention, as follows:

**Escape Prevention**

Research into escape detection technologies and improved containment systems should be encouraged.

**Proposed NASCO Response:** This addition seems sensible and consistent with recommendations of the Workshop on Marking of Farm Salmon held in Edinburgh in December 2004. The proposed change is acceptable to NASCO.

13. **New Appendix**

**ISFA’s Proposed Change:** ISFA wishes to include a new Appendix containing the Canadian Introduction and Transfers Code.

**Proposed NASCO Response:** See response under 6(b) above.
Council

CNL(06)22

Interim Report by the Co-Conveners of the NASCO/ICES Bergen Symposium
Introduction

1. In response to concerns about interactions between salmon aquaculture and the wild salmon stocks, NASCO and ICES have organised a series of international meetings with the aim of reviewing scientific understanding of the interactions and providing guidance on appropriate management responses. The first major international symposium on this subject was sponsored by the Norwegian Directorate for Nature Management and held in Loen, Norway, in 1990. A second major international symposium was held in Bath, England, in 1997 which reviewed the scientific and management aspects of interactions between salmon culture and the wild stocks.

2. Aquaculture is certainly not the only threat to wild salmon stocks and NASCO is addressing a wide range of other issues relating to salmon conservation and management. However, the progress that is now being made in managing interactions between wild and cultured salmon must be maintained, enhanced and given more urgency, so as to ensure that all aquaculture practices are conducted in a sustainable manner that does not threaten the wild stocks. ICES and NASCO, therefore, agreed to hold a third international symposium in Bergen, Norway, from 18-21 October 2005. The Co-Conveners were Lars Petter Hansen (Norway) and Malcolm Windsor (NASCO). The objectives of this latest symposium were: (a) to summarise available knowledge on the interactions between aquaculture and wild salmon stocks and other diadromous fish species; (b) to identify gaps in current understanding of these interactions and to develop recommendations for future research priorities; (c) to review progress in managing interactions, and to identify the remaining challenges and possible solutions; and (d) to make recommendations for additional measures to ensure that aquaculture practices are sustainable and consistent with the Precautionary Approach.

3. The aim was to build on the existing collaboration between wild and farmed salmon interests so as to identify the remaining challenges and possible solutions in moving towards sustainable culture of Atlantic salmon. A total of 111 participants from 17 countries attended the symposium, including delegates with experience of research into, and management of, interactions between cultured and wild salmon in the North Atlantic Ocean, Baltic Sea and North Pacific Ocean. The symposium was structured into four plenary sessions and a poster session. In total, 35 invited and contributed papers and 13 poster papers were presented.

Opening of the Symposium

4. The symposium was opened by Ms Janne Sollie, Director General of the Directorate for Nature Management in Norway, who noted that understanding of interactions between cultured and wild salmon has increased markedly since the first ICES/NASCO symposium in 1990, and that it is now generally recognised that salmon farming can pose a serious threat to the wild stocks. She referred to the improved cooperation between the salmon farming industry, the authorities and various stakeholders, and to the fact that some progress is being made in addressing
interactions. However, she referred to two very significant events in Norway during 2005 which had resulted in the escape of approximately 600,000 farmed salmon to the wild. She stressed that additional measures are, therefore, essential in order to move closer towards sustainable aquaculture. There were welcoming addresses by the President of NASCO (Dr Ken Whelan) and a representative of ICES (Dr Niall O’Maoileidigh).

Keynote Session

5. The first session, chaired by Lars Petter Hansen and Malcolm Windsor, was a keynote session intended to set the scene with reviews of the value of wild Atlantic salmon, developments in the sustainability of the salmon farming industry, the stock status and management of wild Atlantic salmon, and the ecology of cultured Atlantic salmon and their interactions with wild fish. A number of points emerged from this session, including the following:

- in addition to the very significant social and economic values associated with salmon fisheries and eco-tourism, the general public care about, and are willing to pay to conserve, the wild Atlantic salmon. If the salmon farming industry is perceived to damage the wild stocks, consumers may reject its products;
- worldwide production of farmed salmon has trebled in the last decade and the continued success of the industry will require that the product is perceived to be safe and healthy, that it is not associated with degradation of the natural environment, and that the industry is seen to be open and transparent, and willing to focus on welfare issues and environmentally sustainable practices;
- wild Atlantic salmon stocks are very vulnerable, with many stocks in a depressed state and some critically endangered. Much has been done to reduce exploitation but many factors are influencing the stocks. Given the status of the stocks it is vital that human activities, including those arising from aquaculture, do not exacerbate the situation;
- cultured fish compete for space, food and breeding partners with wild salmon in nature and may partly displace and increase the mortality and reduce the growth rate of wild fish with effects on life-history traits, biomass and production.

6. Following the keynote session there were sessions focusing on genetic and ecological interactions and their management and on disease and parasite interactions and their management.

Genetic and ecological interactions and their management

7. This session was chaired by Mary Colligan (USA) and Tom Cross (Ireland). In total, 20 papers were presented. A number of points emerged from the session on genetic and ecological interactions, as follows:

- while there have been considerable improvements in containment and improvements in reporting, the number of escaped farmed salmon is still large relative to the abundance of wild salmon;
• escaped fish may disperse quickly from the site of release, moving predominantly with the currents, and their fate is highly variable and affected by a variety of factors;
• in Norway, the number of salmon in cages appears to be a better predictor of escapees in rivers and fisheries than the reported number of escapees, suggesting that there may be significant unreporting, possibly because of small-scale but frequent escapes (‘trickle losses’) during handling, net changes, etc. Storms were identified as a major source of escapes and the implications of climate change for future containment management measures will require careful consideration;
• theoretical modelling comparing wild salmon populations exposed to salmon farming and those not exposed indicates reduced productive capacity of wild salmon in areas with farms, with the size of the reduction linked to the scale of farmed production in the area;
• genetic change has been observed in some wild salmon populations exposed to escapees but not in others, suggesting that impacts from escapees are influenced by the number of escapees spawning and the abundance of the wild fish population in the river. Simulations, based on simplified input data, with fixed annual intrusion rates of 20% farmed escapees, suggest that substantial changes can take place in wild salmon populations within ten salmon generations and that these changes may be irreversible;
• risks are posed by stocking of cultured fish and the goals of such programmes need to be carefully considered;
• solutions to escapes from freshwater facilities are available and are inexpensive to implement. Improved physical containment measures are required for marine sites and biological containment should be considered.

Disease and parasite interactions and their management

8. This session was chaired by Malcolm Beveridge (Scotland) and Chris Poupard (Chairman of NASCO’s NGOs). In total, 15 papers were presented; most concerned sea lice. A number of points emerged from the session on disease and parasite interactions and their management, as follows:

• increased understanding of all aspects of sea lice biology have led to better tools for identification of sea lice, facilitated the development of increasingly effective integrated lice management strategies and may lead to the development of an effective vaccine in future;
• sea lice infection pressure from salmon farms is an important issue affecting wild salmonids in many areas. Infestation levels on emigrating salmon smolts are highly site-dependent and the risk of infection varies from year to year and with hydrographic conditions, etc.;
• sea trout are highly susceptible to sea lice infestations, with the level of infestation decreasing with distance from marine salmon farms;
• for both salmon and sea trout, sea lice burden is now recognised as a strong predictor of mortality in areas with farms;
• sea lice management has evolved considerably in recent years but there are concerns about the reliance on a handful of key medicines. While there have been notable improvements in lice management strategies in recent years, challenges remain if wild salmon and sea trout stocks are to be effectively
protected. The use of wrasse may be an important option in integrated lice management regimes;
- both the prevention of the further spread of the parasite *Gyrodactylus salaris* and its elimination from infected rivers are essential.

### Poster Session

9. This session was chaired by Arni Isaksson (Iceland) and Peter Hutchinson (NASCO). In the Poster Session, there were 13 presentations covering three main topic areas: studies of the abundance, distribution, behaviour and source of escapees; genetic aspects of stocking programmes; and sea lice biology. Poster papers were also presented on the use of aquaculture-free zones, the comparative feeding behaviour of cultured and wild salmon and the effects of domestication.

### Synthesis Session

10. The final session was a synthesis session chaired by Malcolm Windsor and Lars Petter Hansen, and was intended to highlight the remaining challenges and possible solutions to these. Following a summary of the preceding sessions by each of the Session Chairmen, six participants from different interests were asked to give their perspectives on the information presented during the symposium, i.e. their “take-home” messages. There were two representatives of non-government organizations, two representatives of the fish farming industry and two representatives of administrations involved in the management of salmon farming or wild salmon. In these messages the salmon farming industry representatives acknowledged that it can no longer be claimed that salmon farming poses no threat to wild salmon but stressed that the industry has evolved considerably and there are causes for optimism and evidence that good management on farms can ensure that the wild and farmed salmon sectors can co-exist in harmony. Key challenges remaining include the introduction of further measures, including effective area management and falling, to protect wild salmon and sea trout stocks from sea lice, and additional measures to minimise escapees and their impact, including improved cage designs, risk assessments, awareness campaigns in relation to “trickle losses”, third-party audits and consideration of the use of sterile fish. There is a need to avoid unnecessary confrontation and to build trust, to seek constructive dialogue and develop enhanced co-operation between wild and farmed salmon interests. That process has started and the Conveners hope that the emphasis now will be on moving forward with solutions to the remaining issues.

11. The symposium was closed by Mr Peter Gullestad, Director of the Norwegian Directorate of Fisheries and a Vice-President of ICES.

### Publication of Proceedings

12. There will be two reports of the Symposium. A special issue of the ICES Journal of Marine Science will include a selection of the scientific papers following peer review. This issue will be published in September or October of this year and is being edited by Peter Hutchinson. In addition, the Co-Conveners will be preparing a report focussing on the management aspects, and it is hoped that this report will be published in the autumn.
**Sponsorship**

13. The symposium was well supported and the generous support of the following organizations is acknowledged:

Research Council of Norway, Directorate of Nature Management (Norway), Directorate of Fisheries (Norway), Norwegian Institute for Nature Research, Royal Norwegian Ministry of Fisheries and Coastal Affairs, Royal Norwegian Ministry of the Environment, Scottish Executive, DEFRA (UK), Fisheries and Aquaculture Research Fund (Norway), Directorate of Freshwater Fisheries and Salmonid Enhancement Fund (Iceland), National Marine Fisheries Service (USA), The Worshipful Company of Fishmongers (UK), Atlantic Salmon Trust (UK), Intervet International BV (Netherlands), Marine Institute (Ireland), Pharmaq AS (Norway), ScanVacc AS (Norway), Norwegian Farmers Union, Norwegian Salmon Rivers and the City of Bergen.

**Acknowledgements**

14. The Co-Conveners are grateful to the Symposium Steering Group (Malcolm Beveridge, Mary Colligan, Tom Cross, Knut Hjelt, Peter Hutchinson, Arni Isaksson, Geoff Perry and Chris Poupard) for their assistance in planning the Symposium and to all contributors for their presentations.

Malcolm Windsor and Lars Petter Hansen  
Co-Conveners  
8 May, 2006
Council

CNL(06)32

Russian Studies of Distribution and By-Catch of Atlantic Salmon Post-Smolts in the Norwegian Sea in 2005
Russian Studies of Distribution and By-Catch of Atlantic Salmon Post-Smolts in the Norwegian Sea in 2005

Introduction

In 2002 the Russian Federation started a programme to study the distribution of post-smolts and their potential by-catch in the Russian mackerel fishery in the Norwegian Sea. The research has shown that occurrence of post-smolts and adult salmon in commercial catches is insignificant (ICES, 2003). In 2005 the programme was continued and, as in previous years, it consisted of both the pelagic fish survey conducted by research vessel and the screening of commercial catches by observers.

Pelagic Fish Survey

In June-July 2005 the Russian Research Vessel (RV) “Fridtjof Nansen” participated in the annual international Atlanto-scandian herring survey in the Norwegian Sea (Figure 1). As in previous years, one of the objectives of this survey was to collect data on post-smolts in the Norwegian Sea. Hauls were taken by pelagic research trawl according to standard methods. The trawl was not rigged with additional floats. A headline was towed at depths of 1-50 m (81 hauls), 50-100 m (8 hauls), 100-200 m (7 hauls), 200-300 m (4 hauls) and more than 300 m (1 haul). In total, 101 pelagic hauls were made (Table 1). Towing speeds varied from 2.1 to 5.1 knots (average 4 knots), with a standard duration of 30-60 minutes. The whole catch was screened and each fish was identified and handled individually.

Three hauls were taken at the beginning of June in the northern part of the Norwegian Sea in the Norwegian EEZ between 71-74°N (Figure 1). One adult salmon among 1 tonne of herring was found (Table 2).

During another 20 days in June RV “Fridtjof Nansen” was operated in the southern part of the Norwegian Sea between 61-64°N and 43 hauls were taken. Catches varied from 1 to 4,000 kg and consisted of blue whiting, mackerel and herring. No salmon were caught (Figure 1). At the end of June, 6 hauls were again made in the northern part of the Norwegian Sea. No salmon were caught.

In July, RV “Fridtjof Nansen” surveyed the central part of the Norwegian Sea between 65-71°N, where 49 hauls were made. The catches of different pelagic species varied from 1 to 1,650 kg. One adult salmon among herring (375 kg) and mackerel (15 kg) (Table 2) was found in the Jan-Mayen EEZ (Figure 1).

Screening of Commercial Catches

In 2005 the programme to assess by-catch of adult and post-smolt Atlantic salmon was carried out in the Norwegian Sea by FV “Persey-4” during commercial pelagic fishing for mackerel, blue whiting and herring from 24 June to 27 August.

The data were collected in the area from 64° to 74°N, between 03°30’W and 14°30’E in the Norwegian Sea. Samples of pelagic species were taken from commercial hauls by pelagic trawl. The mesh size in the cod-end was 125 mm, and 40 mm in the trawl blinder. Trawl parameters were: vertical opening 35-65 m, distance between doors 58-65 m. The trawl was
not rigged with additional floats. A headline was towed at depths of 1-350 m. Trawling speed varied from 3.9 to 4.7 knots for blue whiting and herring and to 5.2 knots for mackerel. In total, 182 pelagic hauls were made (Table 3) during the cruise in the Norwegian Sea. 20,777 fish were measured, 3,259 were examined, and the age sample contained 559 fish of various species. All fish biology studies were undertaken in accordance with methodologies adopted by PINRO.

From 24 June to 6 July fishing for mackerel took place in the international waters of the Norwegian Sea from 65°17’ to 66°16’N, between 03°17’E and 00°50’W (Figure 2). The total catch of pelagic fish was 274 t. Neither post-smolts nor adult salmon were found.

From 6 July to 1 August fishing for mackerel took place in a strip of waters adjacent to the 200-mile limits of the Faroe Islands and Norway, from 64° to 65°25’N, between 00°30’ and 04°W (Figure 2). The total catch of pelagic fish was 575 t. Neither post-smolts nor adult salmon were found.

From 1 to 13 August fishing for blue whiting took place in the international waters of the Norwegian Sea from 64°30’ to 69°20’N, between 04°10’W and 03°E (Figure 2). The total catch of pelagic fish was about 328 t. Neither post-smolts nor adult salmon were found.

From 16 to 27 August fishing for Atlanto-scandian herring took place in the northern part of the Norwegian Sea from 71°30’N to 74°00’, between 09° and 14°30’E (Figure 2). The total catch of herring and blue whiting was 354 t. Post-smolts of Atlantic salmon occurred as by-catch in the period from 17 to 20 August, when near-surface aggregations of herring (depth interval 5-100 m) were fished in the Bear Island-Svalbard area from 73°49’ to 72°55’N, between 14°21’ and 12°20’E. In total, 9 post-smolts were taken (Table 4). The catch of herring and blue whiting in this period was 23 t.

**Conclusion**

Low by-catch in both Russian surveys conducted in 2005 could, apparently, be explained by the fact that neither the commercial pelagic trawl nor the Russian research pelagic trawl can capture any significant numbers of adult Atlantic salmon or post-smolts swimming near the sea surface, which can be attributed to both specific features of the trawl designs and fishing techniques.

It should be noted that Atlantic salmon by-catches (single instances) have been reported in other fisheries in the Norwegian and Barents Seas (e.g. cod fishery). These by-catches seem to be uncommon and probably occur when the trawl is in the near-surface position when retrieving.

So, with the traditional pelagic trawl design and trawl rigging used by Russian vessels in the pelagic fisheries in the Norwegian Sea, it is unlikely that there is a by-catch of adult salmon or post-smolts in significant numbers. They are only accidentally captured in the course of trawl retrieval on board, when the netting is positioned near the sea surface for a short time.

**References**

Table 1. Details of hauls taken by RV “Fridtjof Nansen” in 2005

<table>
<thead>
<tr>
<th>Month</th>
<th>Number of hauls</th>
<th>Catch, t</th>
<th>Salmon by-catch</th>
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<tr>
<td></td>
<td></td>
<td>Herring</td>
<td>Mackerel</td>
</tr>
<tr>
<td>June</td>
<td>52</td>
<td>11.1</td>
<td>1.5</td>
</tr>
<tr>
<td>July</td>
<td>49</td>
<td>5.5</td>
<td>6.1</td>
</tr>
<tr>
<td>Total</td>
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Table 2. Details from screening of catches by RV “Fridtjof Nansen”

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<th>Headline depth, m</th>
<th>Catch, t</th>
<th>Salmon by-catch</th>
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<td></td>
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Table 3. Details of hauls done by FV “Persey-4” in 2005

<table>
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<th>Catch, t</th>
<th>Salmon by-catch</th>
</tr>
</thead>
<tbody>
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<td></td>
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<tr>
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<tr>
<td>July</td>
<td>95</td>
<td>83.3</td>
<td>6.2</td>
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<tr>
<td>August</td>
<td>69</td>
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<tr>
<td>Total</td>
<td>182</td>
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Table 4. Details from screening of catches by FV “Persey-4”

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<th>Catch, t</th>
<th>Salmon by-catch</th>
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<td></td>
<td></td>
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<td>19.08.2005</td>
<td>15</td>
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<td>15</td>
<td>5.4</td>
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Figure 1. Positions of pelagic trawl hauls in herring survey conducted by RV “Fridtjof Nansen” in June - July 2005. Circles indicate Atlantic salmon in catch.
Figure 2. Positions of pelagic trawl hauls taken by FV “Persey-4” in June - August 2005. Circles indicate Atlantic salmon post-smolts in catch.
Council

CNL(06)23

St Pierre and Miquelon Salmon Fishery
1. The Council has previously recognised the need for scientific and other information concerning the mixed stock fishery for salmon at St Pierre and Miquelon. For the last two years, an observer representing France (in respect of St Pierre and Miquelon) has presented information on the regulatory framework for the fishery, catch statistics and details of a sampling programme for salmon at St Pierre and Miquelon undertaken by IFREMER scientists in 2003 and 2004 (see documents CNL(04)26 and CNL(05)28).

2. I have recently received from the Head of Maritime Fisheries and Aquaculture in the French Ministère de l’Agriculture et de la Pêche the attached report describing the regulatory framework for managing the fishery at St Pierre and Miquelon, and providing details of salmon catches and the number of licences issued in 2005. The number of licences issued (66) and the catch (3.3 tonnes) were higher in 2005 than in 2004 (53 licences and 2.8 tonnes respectively). While only about half of these licensed fishermen actually fished for salmon, the catch in 2005, although low, was the highest in the period 1998-2005 and was approximately 18% higher than the catch in 2004. The research programme at St Pierre and Miquelon comprises three elements: biometric sampling, genetic analysis and testing for diseases and parasites. The report also outlines the nature of the sampling programme conducted in 2005 by IFREMER scientists. The biometric sampling programme was continued in 2005 with 310 salmon being measured and weighed. In addition, with cooperation from Canadian scientists, tissue (25) and scale (166) samples collected in 2004 for genetic analysis are being analysed, but the results are not yet available. The pathological study has not yet been initiated but it is anticipated that this will be undertaken this year. In short, the French authorities indicate that they have pursued their commitment to gathering scientific knowledge about the salmon stocks at St Pierre and Miquelon and will endeavour to maintain their efforts with regard to the biometric element and to complete the genetic analysis. The French authorities also intend to put in place a procedure with a view to reducing the number of permits granted and hence reduce catches.

3. This continuing commitment to the sampling programme and the management of the fishery at St Pierre and Miquelon is very welcome, as is the commitment to further regulate the fishery, which the French authorities regard as a traditional subsistence fishery. We have, as requested by the Council, invited a representative from France (in respect of St Pierre and Miquelon) to attend the Twenty-Third Annual Meeting.

4. In the light of the information provided and the results of the sampling programme, the Council may wish to consider what further steps, if any, it wishes to take in relation to cooperation with France (in respect of St Pierre and Miquelon).

Secretary
Edinburgh
9 May, 2006
Dear Secretary,

On behalf of Saint-Pierre et Miquelon, please find enclosed the report from France on wild salmon fishing activities, which is intended as preparatory material for NASCO’s next Annual Meeting.

As in the previous year, this report contains a brief description of the regulatory framework established to manage this species. It also includes some information on the number of catches made.

The annex to this document, on the other hand, sets out to describe progress made by the scientific programme implemented the previous year to study this species.

Should the Contracting Parties be made aware, however, of anything of interest in this matter, France would amend the present report accordingly.

Should you, in the meantime, require any other information, my team remains at your disposal.

Yours faithfully,

pp. The Head of Maritime Fisheries and Aquaculture

Signed by the Assistant Director of Maritime Fisheries

François Gauthiez
Given its geographical location, next to Newfoundland banks, Saint-Pierre & Miquelon has always been strongly dependent on maritime fishing activities. These activities have traditionally focused on cod fishing and its by-catch.

In keeping with this tradition, the inhabitants of the archipelago have included in their fishing activities a fairly small catch from the wild salmon stock. However, this has never constituted a trading activity as none of the fish has ever been intended for export.

The continuation of this traditional form of fishing is therefore a cultural phenomenon rather than a financial pursuit.

Bearing in mind the issue of sustainable management of this species, this activity has nonetheless been carried out over the years within a very comprehensive regulatory framework.

Furthermore, a scientific programme has recently been implemented with a view to gaining a greater understanding of this particular stock.

**I – Description of the measures in place**

1-1/ The regulatory framework for salmon fishing at Saint-Pierre et Miquelon

The regulatory framework within which this type of fishing activity is undertaken has not been amended recently: salmon fishing is undertaken in accordance with the management and conservation measures set by the 20th March 1987 Ministerial decree.

This decree stipulates particularly that Atlantic salmon (*Salmo salar*) fishing is subject to a fishing permit being granted, on an annual basis, by the authorities in charge of fisheries management.

This decree also clearly defines the fishing seasons. Hence, in 2006, the fishing season in the archipelago of Saint-Pierre et Miquelon’s waters was from 1st May to 31 July.

This same document predetermines the technical requirements for salmon fishing, particularly the characteristics of nets and the way these are set. In this respect, one must point out that the setting of nets cannot take place below a minimum distance from the entry of water courses where the salmon is likely to spawn.

Finally, salmon fishermen are required to keep a fishing log showing the catches made. This fishing data is then transmitted to the Department of State responsible for the management of these fisheries for statistical and control purposes.

1-2/ Statistical data concerning salmon fishing at Saint-Pierre et Miquelon

The catch statistics and the number of permits granted until the end of last year are as follows:
CATCHES
(in kilograms per live weight)

<table>
<thead>
<tr>
<th>Years</th>
<th>Professional fishing</th>
<th>Leisure fishing</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>1998</td>
<td>1,039</td>
<td>1,268</td>
<td>2,307</td>
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<td>2004</td>
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<td>2005</td>
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PERMITS ISSUED

<table>
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<tr>
<th>Years</th>
<th>Professional fishing</th>
<th>Leisure fishing</th>
<th>Total</th>
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<td>42</td>
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<tr>
<td>2005</td>
<td>14</td>
<td>52</td>
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With regard to the number of permits issued, it is important to underline that the figures mentioned do not necessarily reflect the reality of the fishing impact during the said period. Indeed, one must acknowledge that only 8 professional fishermen and 24 leisure fishermen have actually taken up this activity in 2005.

It is equally important to remember at this stage that the expression “professional fishing” is in fact referring to a traditional subsistence fishery for a local community highly dependent on fishing, and not to a truly commercial activity.

The aforementioned data shows an increase in “professional fishing” landings, but a decrease in “leisure fishing” landings. The total of recorded landings is therefore 18% higher than that of the previous year.

Given NASCO’s recommendations on this point, the long-term objective remains to lower the catches made from this resource. The local Authorities should therefore gradually implement a procedure aiming to reduce the fishing effort on this stock.

II – Prospects concerning the salmon and strengthening of the cooperation with NASCO

As was confirmed by its demonstration of support as Observer, France (in respect of Saint-Pierre et Miquelon) wishes to increase its cooperation with NASCO to better participate in the process of understanding, conservation and management of the salmon in the North Atlantic area.

This course of action is part of a cooperation initiative already taken, as a matter of course, with the different regional fishing organisations that have jurisdiction in this zone, i.e. NAFO (Northwest Atlantic Fisheries Organisations), ICCAT (International Convention for the Conservation of the Atlantic Tuna).

This cooperation aims also to reinforce the natural links which exist between Saint-Pierre et Miquelon and some of NASCO’s Parties, namely Canada.
As part of this cooperation, the French authorities have therefore implemented a programme of scientific monitoring under the leadership of IFREMER.

This programme, inspired by a project devised by NASCO, is based on the following constituents:

- a biometric study,
- a genetic study,
- a pathological study.

2-1/ The biometric study

The aims of this project are to better define the characteristics of the salmon population.

This biometric study, launched in 2003, was continued in 2005 in accordance with the commitments made.

Hence, 8 samplings took place in 2005 during which 310 gutted salmon were measured to the caudal fork and weighed.

From this study, it transpires that the smallest size is 48 cm for a gutted weight of 1,400 grams and the largest size is 90 cm for a gutted weight of 7,400 grams.

IFREMER’s report providing the results of these samplings is attached to the present document.

This biometric study should be repeated for the 2005-2006 season, in which case the results would be forwarded to NASCO.

2-2/ The genetic study

This constituent of the study was initiated in 2004. It led to the sampling of tissues from 25 salmon as well as to the sampling of 166 scales. The complete results of these analyses are not yet available.

2-3/ Pathological study

To date this aspect of the study has not yet been initiated. It is expected, however, that it will be undertaken in the year to come.

In summary, France has pursued her commitment, with regard to gathering scientific knowledge of this stock, in view to participating in this fishery management and conservation effort. There are some constituents of this study, particularly those which deal with genetic analyses, which have not been undertaken as planned. Aware of the necessity to successfully complete this programme, the French Authorities will endeavour to maintain their effort with regards to the biometric constituent and to complete the planned genetic analyses.

In parallel, and with regards to management per se, the French Authorities intend to put in place a procedure with a view to reducing the number of permits granted and hence reduce progressively the catches made on this fragile stock.

In so doing, France intends to offer its contribution to a sustainable management of this fishery and to the improvement of the scientific knowledge of this stock.
In 2005, salmon fishing at Saint-Pierre et Miquelon took place mainly during the month of June, in keeping with previous years. Both the fishing sites and fishing gear used have also remained unchanged.

However, the appearance “en masse” of jelly fish which were, according to the fishermen, in greater numbers than the previous years, was one specific fact that has been noted in 2005. One other noteworthy point: these jelly fish came earlier than they would normally.

There were therefore fairly significant consequences for the fishing activity. The nets were rendered less efficient because these jelly fish adhered to the nets in large numbers. Furthermore, the fishermen had to repair their nets earlier than normal.

As in previous years, a temperature check has been undertaken.

1 – Fishing sites

The sites, where nets were laid, are as follows:


2 – Fishing gear

The fishing gear generally used is a ‘tesure’ made up of 3 or 4 nets linked end to end. Made in Canada, these nets are laced up with 60/100 mm diameter polyamide monofilament thread. The thread colour depends on the size of the mesh, when stretched out, being dark green for the nets with a mesh of 5 inches (125 mm) wide or olive green for those with a mesh of 6 inches (150 mm). It is worth noting that the nets used are unlikely to all be exactly identical.

3 – Sampling from the 2005 landings

In all, 8 samplings were carried out during which 310 gutted salmon were weighed and 295 measured to the caudal fork and weighed. (15 salmon were weighed without being measured and therefore not taken into consideration as they had been captured damaged). The smallest size was 48 centimetres for a gutted weight of 1.4 kg and the largest 90 centimetres for a gutted weight of 7.4 kg. An average size of 61 centimetres and average weight of 2,430 kg were noted.
Summary of the sampling exercise carried out on the salmon in 2005 at Saint-Pierre et Miquelon

4 – Variations in size and weight during the month of June

During the 23rd week (from 6th to 12th June), the size average of the 23 salmon studied was 77cm and the weight average 4.54 kg.

During the 24th week (from 13th to 19th June), these averages were 65 cm and 3 kg respectively for 56 salmon studied.

During the 25th week, the size average was 58 cm and the weight average 2.07 kg for 16 salmon examined.

Once more, it was noted that the passage of the big salmon occurred first, a fact confirming the fishermen’s own observations.

5 – Water temperature

Five water temperature checks, at 5 metres deep, were made near the fishing zone during the period from the end of May through to beginning of July. The lowest temperature registered was on the 23rd May (3.6°C) and the highest on the 4th July (8.9°C)

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Temperatures of the water registered in 2003, 2004 and 2005 at Saint-Pierre et Miquelon
Fig 1 - Composition en tailles des débarquements de saumons atlantiques en 2005 à Saint-Pierre et Miquelon

Nombres

N = 295

Fig 2 - Composition en poids des débarquements de saumons atlantiques en 2005 à Saint-Pierre et Miquelon

Nombres

N = 295
Fig 3 - Evolution des tailles moyennes du saumon au cours du mois de juin 2005

Fig 4 - Evolution des poids moyens du saumon au cours du mois de juin 2005
List of figures

Map 1 – Salmon fishing sites at Saint-Pierre et Miquelon

Fig. 1 – Atlantic salmon landings size breakdown in 2005 at Saint-Pierre et Miquelon

Fig. 2 – Atlantic salmon landings weight breakdown in 2005 at Saint-Pierre et Miquelon

Fig. 3 – Average size variation of Atlantic salmon during the month of June 2005

Fig. 4 – Average weight variation of Atlantic salmon during the month of June 2005

Annex 1 – photograph showing the presence of jelly fish in the fishing sites
Annex 25

Council

CNL(06)40

*Acid Rain and Atlantic Salmon in Eastern Canada*  
(tabled by Canada)
North American emissions of SO₂ increased during the industrial revolution and peaked in the early 1970s.

75% of emissions in eastern Canada are from US sources, 25% from Canadian sources (example: for 2003, 2,857 tonnes/yr Illinois, Michigan, Pennsylvania and Ohio vs. 169.5 tonnes/yr Ontario).

Sulfate deposition has decreased about one third since the mid-1980s.

A combination of geochemistry, local weather patterns, thin soils and low acid neutralizing capacity resulted in severe acidification of 65 rivers in the Atlantic coast of Nova Scotia.

- Critical sulphate loads exceed the capacity of the soils to balance pH and release base cations.
- At projected sulphate deposition rates, the time for recovery of base cations in these catchments is 60 to 80 years.
- Increased H⁺ ion concentrations coupled with the low concentrations of Ca⁺⁺ are responsible for the mortality of salmon in acidified rivers of Nova Scotia.

Salmon were extirpated from 14 rivers of Nova Scotia and populations had declined by 90% in another 20 rivers.

Stocking of some rivers was ineffective in maintaining viable populations.

Initiatives on acid rain

- ACID RAIN MITIGATION WORKSHOP FOR ATLANTIC SALMON RIVERS
  - To examine the science around acid rain impacts on salmon and the potential for liming to mitigate these negative effects.

- West River Sheet Harbour (NS) selected for first acid rain mitigation project
  - Nova Scotia Acid Rain Campaign Committee (Nova Scotia Salmon Association and Atlantic Salmon Federation) selected the West River Sheet Harbour watershed as first site for implementing a broad-scale liming plan.
  - West River Sheet Harbour was selected because of its size, proximity to a source of lime, and presence of a remnant, genetically unique population of Atlantic salmon.
  - Committee is developing a long-term liming strategy, setting out criteria for prioritizing all acid rain affected rivers in the province.
  - Various funding sources used to initiate the project.

- A gene-banking program has been started to counter the longer-term affects of acid rain on stocks in Nova Scotia. Several key populations are being harboured and protected at DFO Biodiversity Centres. When threats to the salmon’s survival have been rectified, self-sustaining populations of the fish can be restored to Nova Scotia rivers.
Mystery deaths of wild Atlantic salmon tackled by NASCO

“We simply must solve the mystery of why so many Atlantic salmon are dying at sea, never getting the opportunity to return to their home rivers to reproduce. We don’t have a chance of addressing the problem until we understand it.”

Ken Whelan, President of NASCO

The North Atlantic Salmon Conservation Organization (NASCO) concluded its 23rd Annual Meeting in Saariselkä, Lapland, Finland, on 9 June. In the continuing fight to arrest the decline of wild Atlantic salmon stocks, NASCO agreed to step up research activities on, and funding for, salmon mortality on the high seas and firmly set 2008 and 2009 as the target dates for intensive marine research cruises. It also adopted a focused approach to addressing national threats. Additionally, the significant restrictions on ocean salmon fisheries in place for the last several years were continued.

At the start of the Annual Meeting, the International Council for the Exploration of the Sea (ICES) reported that wild Atlantic salmon populations around the North Atlantic remain at very low levels despite many years of severe reductions in commercial salmon fisheries and other conservation actions. Thus, a major advance this year was the move to establish the infrastructure to promote SALSEA (Salmon at Sea), a state-of-the-art international research initiative endorsed by NASCO last year that is aimed at unraveling the reasons behind the serious decline of North Atlantic salmon stocks (www.salmonatsea.com). Funds were allocated this year to support essential research under the programme on the distribution and movements of salmon at sea. SALSEA is a major public/private partnership, and NASCO’s accredited non-government organizations, or NGOs, are playing a key role.

To maximize the number of salmon returning to spawn in their home rivers, NASCO agreed at its June meeting to continue measures to limit the West Greenland mixed stock salmon fishery to internal consumption, which is estimated to be about 20 tons. NASCO also agreed that the Faroe Islands mixed stock fishery should continue to be managed in a precautionary manner and in accordance with scientific advice. For the last few years, no fishery off the Faroe Islands has occurred. The waters around these two countries are where Atlantic salmon from all other NASCO members gather to feed and grow. These agreements were particularly significant this year as they represent a move to longer-term and more stable regulatory schemes in light of the continued poor status of the resource.

In another important step, NASCO continued to make progress in implementing recommendations from its two-year internal review process. The process has now resulted in substantial changes to the way NASCO does business. In particular, NASCO has adopted
procedures to make sharing and assessing information from its members more efficient and effective.

A guiding theme for NASCO this week was finding ways to improve its transparency and inclusiveness. The Organization agreed a full partnership approach with its 27 observer NGOs. These groups are now involved in a wide range of NASCO’s activities, including public relations, education and outreach and evaluating national reports of the Parties concerning salmon conservation. In addition, during Annual Meetings, NGOs may now participate actively in discussions.

President Whelan noted, “I am really pleased that both NASCO and its NGOs are already benefiting from our closer relationship. More than ever, we are sharing experiences and learning from each other. Given their expertise, NGOs will be particularly helpful in spreading NASCO’s message and providing input on the implementation plans of the Parties. In the end, exchanging information and utilizing each other’s expertise can only be good for wild Atlantic salmon.”

The important decisions taken this week once again demonstrated the deep and abiding commitment NASCO, its membership, and its NGOs have to ensuring wild Atlantic salmon will be around for generations to come.

Notes for editors

NASCO is an intergovernmental organization formed to promote the conservation, restoration, enhancement, and rational management of salmon stocks in the North Atlantic Ocean. The Twenty-Third Annual Meeting of NASCO was held in Saariselkä, Finland, from June 5-9, 2006. NASCO’s members are Canada, Denmark (in respect of the Faroe Islands and Greenland), the European Union (which currently has 25 member states), Iceland, Norway, the Russian Federation, and the United States of America. Representatives from 17 non-governmental organizations (NGOs) and 2 inter-governmental organizations (IGOs) also attended the meeting.

The report of the 2006 NASCO Annual Meeting with annexes and other information on Atlantic salmon and the Organization will be made available on the NASCO website: www.nasco.int.

The next Annual Meeting of NASCO will be held from 4 to 8 June 2007 in Bar Harbor, Maine, USA.

For more information on NASCO, contact:

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Fax (+44-131) 228-4384
e-mail: hq@nasco.int
### ANNEX 27

**CNL(06)0**  
*List of Council Papers*

<table>
<thead>
<tr>
<th>Paper No.</th>
<th>Title</th>
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<tbody>
<tr>
<td>CNL(06)0</td>
<td>List of Council Papers</td>
</tr>
<tr>
<td>CNL(06)1</td>
<td>Provisional Agenda</td>
</tr>
<tr>
<td>CNL(06)2</td>
<td>Explanatory Memorandum on the Agenda</td>
</tr>
<tr>
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<td>Draft Agenda</td>
</tr>
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<td>Draft Schedule of Meetings</td>
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<td>CNL(06)5</td>
<td>Report of the Twenty-Third Annual Meeting of the Finance and Administration Committee of the North Atlantic Salmon Conservation Organization</td>
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<td>Report on the Activities of the North Atlantic Salmon Conservation Organization in 2005</td>
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<td>CNL(06)7</td>
<td>Report of the ICES Advisory Committee on Fishery Management</td>
</tr>
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<td>Catch Statistics - Returns by the Parties</td>
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<td>Historical Catch Record 1960-2005</td>
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<td>CNL(06)10</td>
<td>Unreported Catches – Returns by the Parties</td>
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<tr>
<td>CNL(06)11</td>
<td>Report of the Fifth Meeting of the International Atlantic Salmon Research Board</td>
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<td>CNL(06)12</td>
<td>Discussion Document from the Standing Scientific Committee on Options for Changing the Request for Advice from ICES</td>
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<td>Request for Scientific Advice from ICES</td>
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<td>CNL(06)14</td>
<td>Report on Progress with Implementing the Strategic Approach for NASCO’s ‘Next Steps’</td>
</tr>
<tr>
<td>CNL(06)15</td>
<td>Cooperation with Other International Organizations on Issues of Mutual Interest</td>
</tr>
<tr>
<td>CNL(06)16</td>
<td>Report of the ‘Next Steps for NASCO’ Task Force</td>
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<td>Returns under Articles 14 and 15 of the Convention</td>
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Amendments to the ‘Williamsburg Resolution’

Report of the Meeting between the International Salmon Farmers’ Association (ISFA) and Representatives of the NASCO Secretariat

Report on Progress with the Development of a Database of Salmon Rivers

Summary of Council Decisions

Interim Report by the Co-Conveners of the NASCO/ICES Bergen Symposium

St Pierre and Miquelon Salmon Fishery

Application for NGO Observer Status to NASCO

Draft Report of the Twenty-Third Annual Meeting of the Council of NASCO

Draft Implementation Plan for Iceland

Supplementary Return – EU (France)

Draft NASCO Implementation Plan for Salmon Management in UK (England and Wales)

US Draft Implementation Plan

Draft Implementation Plan - Norway

EU - UK (Scotland): Report of Implementation Plan for Meeting Objectives of NASCO Resolutions and Agreements

Russian Studies of Distribution and By-catch of Atlantic Salmon Post-smolts in the Norwegian Sea in 2005

Ireland: Report of National Implementation Plans Meeting the Objectives of NASCO Resolutions and Agreements

Draft Implementation Plan of the Russian Federation

Canada’s Implementation Plan – Progress Report

Terms of Reference for a NASCO Public Relations Group

Results from Research Vessel Survey in the Labrador Sea, Fall 2005 (tabled by Canada)

Presentation of the ICES Advice

Terms of Reference for the 2006/2007 Ad Hoc Review Group

Acid Rain and Atlantic Salmon in Eastern Canada (tabled by Canada)
CNL(06)41  Scientific Advice – Assessing Genetic Effects (tabled by ICES)
CNL(06)42  Agenda
CNL(06)43  2007 Budget, 2008 Forecast Budget and Schedule of Contributions
CNL(06)44  NASCO Implementation Plan for Salmon Management in Finland
CNL(06)45  Draft Press Release
CNL(06)46  Report of the Twenty-Third Annual Meeting of the Council of NASCO
CNL(06)47  Press Release
CNL(06)49  NASCO Implementation Plan For Northern Ireland including the Cross-Border Foyle and Carlingford Catchments to meet the Objectives of NASCO Resolutions and Agreements (tabled by the European Union - UK (Northern Ireland))
CNL(06)70  Statement by NAMMCO

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